DCON
SAFETY CONSULTANTS

22 August 2022

Report

Construction Management Plan (rev 0)

Proposed Residential Development (42nr. Units), Stoney Hill Road, Rathcoole, County Dublin

Romeville Developments Limited

securing right **outcomes**

LOCATION	BLOCKS | BUILDINGS	LEVELS	DISP.	REPORT NO. | REV
STONEY HILL ROAD, RATHCOOLE, COUNTY DUBLIN	42NR UNITS	ALL (ABOVE AND BELOW GROUND)	PSDP	CMP-DCON-RPT-001-00

Diarmuid Condon
Managing Director

DCON Safety Consultants Limited
Suite 5, Fitzwilliam Square East,
Dublin 2
Ireland

t: +353 1 611 1556
e: diarmuid.condon@dconsafety.com
w: www.dconsafety.com

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Proposed Residential Development (42nr. Units), Stoney Hill Road, Rathcoole, County Dublin

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1 Executive summary

The following Draft Construction Management Plan document has been produced as part of the overall planning application for the proposed 42nr. Unit Project at Stoney Hill Road, Rathcoole County Dublin. This Plan seeks to demonstrate how works can be delivered in a logistic, sensible, and safe sequence. A key aspect of the plan is how works can be coordinated and sequenced maintaining local roadway and infrastructure access. Early contractor engagement can afford valuable construction management input recognising potential areas of risk and what can be done to minimise those risks from the get-go. This post planning engagement will afford Romeville Developments Limited with a means to plan works with a focus to minimise work impact, interface risk and disruption. The integration of design expertise with construction knowledge has provided technical solutions in terms of work scheduling and safety.

This methodology should be developed upon further by the Works Contractor prior to commencing works on site. The indicative construction programme summarises the scale of construction activities that are necessary to undertake a project of this size & complexity coupled with the logistical implications of the works and their effect on adjacent properties imposing obligations to ensure safe access, segregation, day-to- date function, and operational continuity.

In line with the overall development strategic programme, and prior to any enabling or main build works, the Works Contractor should be required to develop a detailed programme for each special work element | works package. Chief among the challenges of the project is the introduction of construction activities significant in scale and volume that are or should be bordered by neighbouring residential properties, existing roadway interface & working within and around agricultural areas.

A construction project of this scale has been planned to be as least disruptive as possible. The project team are seeking to protect the right of all affected stakeholders in continuing their daily lives with limited or undue interruption (as far as reasonably practicable) that may be caused by noise or dust or to be inconvenienced by the construction operations and traffic movements. The project team are seeking to protect the right of all affected stakeholders in continuing their daily lives with limited or undue interruption (as far as reasonably practicable) that may be caused by noise, dust, construction operations or traffic movements. The previous experience of the team in similar projects of this nature offers a high degree of confidence that the minimisation of disruption in the locality should be prioritised.

This Plan seeks to outline a strategy for servicing the construction works with personnel and materials, accommodation and welfare facilities, removal of waste, vertical transportation of materials and personnel, security considerations and programme and logistics challenges for the project whilst being mindful of the constraints within and around the project's environs. This document seeks to present:

- A construction programme sequence supported by projected construction methodologies | techniques that should be adopted by the Works Contractor during the construction stage;
- A summary of foreseeable potential impacts by construction works and alleviating factors; and
- A structure | proforma construction management plan boilerplate for the Works Contractor prior to works commencing on site.

As the ultimate controlling mind for the works, Romeville Developments Limited through their project managers will take the lead in ensuring that there are suitable and sufficient systems in place that promote good health and safety coordination, cooperation and communication between all project stakeholders and the appointed contractor(s).

This Plan will be developed in line with the Contractor's Construction Environmental Management Plan (CEMP). The CEMP should review the following:

- Direct impacts – those impacts associated directly with the environmental aspect, such as increased dust, noise, or vibration levels;
- Indirect impacts – those impacts associated indirectly with the environmental aspect, such as transport and disposal of waste;
- Normal situations – progress according to plan;
- Abnormal situations – the project programme not progressing as planned because of unforeseen or unpredictable circumstances; and
- Emergency situations – an unplanned or unwanted situation has occurred, such as fire, explosion, or malicious damage.

The CEMP should be viewed as a live document that should be updated as detailed design progresses and if any circumstances change arising from:

- Compliance requirements agreed with Fingal County Council;
- Requirements by other state bodies;
- Concerns raised by local residents affected by works;
- Developed Traffic Management Plan(s); and
- Any specific requirements of the Works Contractor.

This Plan should also be read in conjunction with the following supporting information submitted with the Planning Application:

- Natura Impact Assessment Screening;
- Ecological Impact Assessment Report;
- Construction Environmental Management Plan;
- Outline Construction and Demolition Waste Management Plan (Resource & Waste Plan);
- Infrastructure Design Statement;
- Traffic Impact Assessment;
- Travel Plan | Mobility Management Plan;
- Flood Risk Assessment;
- Landscape Design Statement;
- Arboricultural Impact Assessment;
- Environmental Impact Assessment Screening;
- Landscape and Visual Impact Assessment;
- Archaeological Impact Assessment;
- Aviation Impact Assessment; and,
- All other plans and particulars submitted with the planning application.

As the ultimate controlling mind for the works, Romeville Developments Limited ('the Applicant') through their Project Manager will take the lead in ensuring that there are suitable and sufficient systems and personnel in place that promote environmental control compliance.

1.1 Report basis

In the preparation of the CMP, DCON Safety Consultants Limited were cognisant of the following:

- Romeville Developments Limited as Client is required under Section 17(1) of the Safety, Health and Welfare at Work Act 2005 to appoint a competent person or persons for the purpose of ensuring as far as is reasonably practicable, that the project –
  - is designed and is capable of being constructed to be safe and without risk to health;
  - is constructed to be safe and without risk to health;
  - can be maintained safely and without risk to health during subsequent use; and
  - complies in all respects, as appropriate, with the relevant statutory provisions. The appointments under section 17 of the 2005 Act will generally mirror the requirement to appoint a competent PSCS and the duties in section 17(1) are in addition to the duties in the Construction Regulations 2013 - 2021. The Works Contractor should be appointed as Main Contractor | Project Supervisor for the Construction Stage and should be given possession of the site area which will form their respective site boundary. Romeville Developments Limited will remain tasked with assessing, challenging, interrogating, and monitoring the Works Contractor's compliance with current health & safety legislation and planning commitments. This will seek to assist in managing the impact of project works to adjoining residential properties.
- The Environment Act 2003, as amended;
- The Litter Pollution Act 1997 (S.I. No. 12 of 1997);
- Eastern-Midlands Region Waste Management Plan 2015 – 2021 (2015);
- Department of Environment and Local Government (DoELG) Waste Management – Changing Our Ways, A Policy Statement (1998);
- Forum for the Construction Industry – Recycling of Construction and Demolition Waste;
- Department of Environment, Communities and Local Government (DoECLG), A Resource Opportunity - Waste Management Policy in Ireland (2012);
- Department of Environment, Heritage and Local Government, Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects;
- FÁS and the Construction Industry Federation (CIF), Construction and Demolition Waste Management – a handbook for Contractors and Site Managers (2002);
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives;
- Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended 2010 (S.I.No.30 od 2010) and 2015 (S.I. No. 27 and S.I. No. 413 of 2003);
- ProPG document 'Planning & Noise – Professional Practical Guidance on Planning & Noise - New Residential Development May 2017';
- CIRIA C532: Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors;
- CIRIA C692: Environmental Good Practice on Site;
- BPGCS005: Oil Storage Guidelines;
- CIRIA C648: Control of Water Pollution from Linear Construction Projects;

- EU Construction and Demolition Waste Management Protocol – BIBM;
- EPA Best practice guidelines (2021) for the preparation of resource & waste management plans for construction & demolition projects;
- Construction & Demolition | Environmental Protection Agency (epa.ie);
- Waste Management Act 1996 (No. 10 of 1996) as amended 2001 (No. 36 of 2001), 2003 (No 27 of 2003) and 2011 (No. 20 of 2011). Sub-ordinate legislation includes:
- European Communities (Waste Directive) Regulations 2011 (SI 126 of 2011) as amended 2011 (S.I. No. 323 of 2011) and 2016 (S.I 315 of 2016);
- Waste Management (Collection Permit) Regulations (S.I No. 820 of 2007) as amended 2008 (S.I No 87 of 2008), 2015 (S.I. No. 197 of 2015) and 2016 (S.I. No. 24 and 346 of 2016);
- Waste Management (Facility Permit and Registration) Regulations 2007, (S.I No. 821 of 2007) as amended 2008 (S.I No. 86 of 2008) as amended 2014 (S.I No. 320 and No. 546 of 2014) and as amended 2015 (S.I. No. 198 of 2015);
- Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) as amended 2010 (S.I. No. 350 of 2010);
- Waste Management (Packaging) Regulations 2014 (S.I. 282 of 2014) as amended 2015 (S.I No 542 of 2015);
- Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997);
- Waste Management (Landfill Levy) Regulations 2015 (S.I. No. 189 of 2015);
- European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (S.I. No. 149 of 2014);
- European Union (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended 2014 (S.I. No. 349 of 2014) and 2015 (S.I. No. 347 of 2015);
- Waste Management (Food Waste) Regulations 2009 (S.I. 508 of 2009), as amended 2015 (S.I. 190 of 2015) and European Union (Household Food Waste and Bio-waste) Regulation 2015 (S.I. No. 191 of 2015);
- Waste Management (Hazardous Waste) Regulations, 1998 (S.I. No. 163 of 1998) as amended 2000 (S.I. No. 73 of 2000);
- Waste Management (Shipments of Waste) Regulations, 2007 (S.I. No. 419 of 2007) as amended by European Communities (shipments of Hazardous Waste exclusively within Ireland) Regulations 2011 (S.I No. 324 of 2011);
- Waste Management (Movement of Hazardous Waste) Regulations, 1998 (S.I. No. 147 of 1998);
- The European Communities (Transfrontier Shipment of Hazardous Waste) Regulations, 1988 (S.I. No. 248 of 1988); and
- European Union (Properties of Waste which Render it Hazardous) Regulations 2015 (S.I. No. 233 of 2015)
- Planning and Development Act 2000 as amended (S.I. No. 30 of 2010) as amended (S.I. No. 310 of 2015);
- Protection of Environment Act 1992 as amended (S.I. No. 413 of 2003) as amended by the Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended;
- Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended by Protection of the Environment (amendment) Act 2003 as amended;

- IEMA Impact Assessment Guidance, 'A New Perspective on Land and Soil in Environmental Impact Assessment' (Feb 2022)'; and
- Machinery Directive 2006/42/EC Edition 2.2 – October 2019 (Update of 2nd Edition). All contractors appointed on the project should be required to adhere to this Directive.

All | proposed alleviation measures and environmental monitoring measures are based on the application of best practice guidance and where relevant regulatory compliance limits.

1.2 Waiver

DCON Safety Consultants Limited are not responsible for any errors or omissions, or for the results obtained from the use of this information by others | contractors

2 Introduction

2.1 Glossary of terms

Term	Definition
The Client	Romeville Developments Limited
D-CMP	Draft Construction Management Plan
CEMP	Construction Environmental Management Plan
R&WMP	Resource & Waste Management Plans
FCC	Fingal County Council
TII	Transport Infrastructure Ireland
PSDP	Project Supervisor for the Design Process
PSCS	Project Supervisor for the Construction Stage
CLO	Community Liaison Officer
CLP	Community Liaison Plan

2.2 Definitions

- *"Construction Management Plan"* is the overall planning, coordination, and control document for the Project, from construction commencement to completion. The CMP is designed to meet the requirements placed upon Romeville Developments Limited to seek to produce a safe, functionally, and financially viable project. This Plan will function as the overarching governance and boilerplate document for the Works Contractor's site-specific Construction Management Plan.
- *"Project"* refers to the design and construction of the 42nr. Unit Project. The Stoney Hill Road Development is a critically important commercial undertaking, involving considerable expense and significant socio-economic impact;
- *"Site"* means the lands works are to be executed or places provided by Romeville Developments Limited for the purposes of the contract; and

- *"Works area"* relates to specific areas of construction activity. Works area is defined by a red boundary line (refer to Appendix A). Within the boundary, the appointed Main Contractor should be responsible for the safe delivery of works and site security.

3 Aim and objective of Draft Construction Management Plan

3.1 Aim

The D-CMP has been prepared to impart the over-arching vision of Romeville Developments Limited that project works can be delivered safely and without risk. Romeville Developments Limited seek to ensure that all works are planned & managed in a safe organised manner, undertaken, and coordinated by competent contractors while obtaining the necessary confidences of all project stakeholders. Romeville Developments Limited are wholly committed to establishing and supporting all necessary aims and objectives to meet this vision. Romeville Developments Limited are dedicated to observing an elevated level of health, safety, & environmental standard and good practice compliance throughout the construction stage of the project. This dedication is shared amongst all project partners and is a prerequisite outcome for the appointed Works Contractor on the project.

3.2 Objective

- The CMP should be provided to each tendering contractor detailing the specific requirements of the Works Contractor's site-specific Construction Management Plan (CMP). This CMP sets out the quantum of minimum information needed for the Works Contractor's CMP;
- The underlying objective of the CMP is to inform the Works Contractor of obligatory minimum standards of behaviours demanded to ensure that compliance with planning conditions can be met;
- Construction activities are planned and executed to maximise the effectiveness, efficiency, sustainability & value-for-money of such works as they progress without impeding neighbouring property safe use & access, live utility services, private and public roadways etc.; and
- Client baseline health and safety requirements are clearly defined and shared with the Works Contractor when preparing their site-specific CMP and in planning the safe delivery of their works.

4 Project description

4.1 Development introduction (refer also to Appendix A for site redline drawing)

- The proposed development site ('subject land') forms part of the entire residential zoned landholding for a 204-housing scheme, with associated infrastructure and facilities, that was granted planning permission through the Strategic Housing Development (SHD) process by An Bord Pleanála (ABP) on 12th November 2020 (Ref. ABP-307698-20);
- The development of the subject land will be for a portion of this housing number (42 no. dwellings) and will be on approx. a quarter of the landholding. The proposed development comprises of the demolition of 1 no. residential property and 1 no. ancillary outbuilding and will consist of the construction of a residential development of 42 no. dwellings on a site area of 2.60 hectares;
- The proposed dwellings will comprise of 2 no. typologies (Typology F and Typology L):
  - Typology F will comprise of 21 no. dwellings and Typology L will comprise of 21 no. dwellings;
  - The proposed 42 no. dwellings will comprise of 42 no. 3 bed units, in a mix of terraced typology; and

- Typology L are two storey and typology F are two storeys, plus second floor loft accommodation with front dormer windows and rear rooflights.

4.2 Phasing

An Site Clearance | Enabling Works | Demolition Works package may be used by Romeville Developments Limited in seeking to de-risk the project for the Main Works Contractor.

4.3 Site location & setting

- The site is located within the townland of Rathcoole, Co. Dublin, ca. 500m south of the main street and ca. 15km from Dublin City Centre. A portion of the Site is currently being used as a builder's yard. There is one (1nr.) residential dwelling and one (1nr.) outhouse on the site which are proposed to be demolished. The remainder of the site was formerly agricultural use and contains some inert materials including topsoil, subsoil and stone which are being temporarily stored on the site. These materials originated during the construction works on the adjacent site. These materials will be removed offsite as part of the construction works for the overall development subject to obtaining planning consent;
- The Stoney Hill Road boundary consists of a mixture of hedgerow, earthen embankment and trees. To the north, the boundary crosses 2nr. properties, one field and an existing domestic dwelling which is proposed to be demolished as part of the proposed works. There is no notable existing natural vegetation running along this boundary. To the eastern boundary there exists a treeline which compromises a mixture of vegetation which runs north to south. Along the southern boundary of the site, water mains traverse the site east to west. There is also a continuation of the treeline along the east boundary that branches to the southwest and east;
- The gradient of the site slopes upwards from north to south with the average slope being gentle;
- The proposed site does not have many mature trees located centrally within. There is a significant hedgerow, running north to south; and

- The site is within the Liffey and Dublin Bay catchment and Liffey_SC_090 sub catchment. The closest watercourse to the Site is the Crockshane Stream approximately 240.00m to the southeast, which flows into the River Camac almost 900.00m northeast of the site. The River Camac flows into the River Liffey, and ultimately into Dublin Bay. The surface water drainage network surrounding the site drains to the River Griffeen, 1.70km northwest of the site. The River Griffeen also enters the River Liffey and flows into Dublin Bay. The level of vulnerability of the site to groundwater contamination via human activities is predominantly High, with an area of Extreme within the east of the site. The main soil is classified as Drumkeeran, with an area of Urban in the northwest and the predominant subsoil is Sandstone and shale till, with a small area of made ground (Made) within the northwest of the site (EPA, 2022).

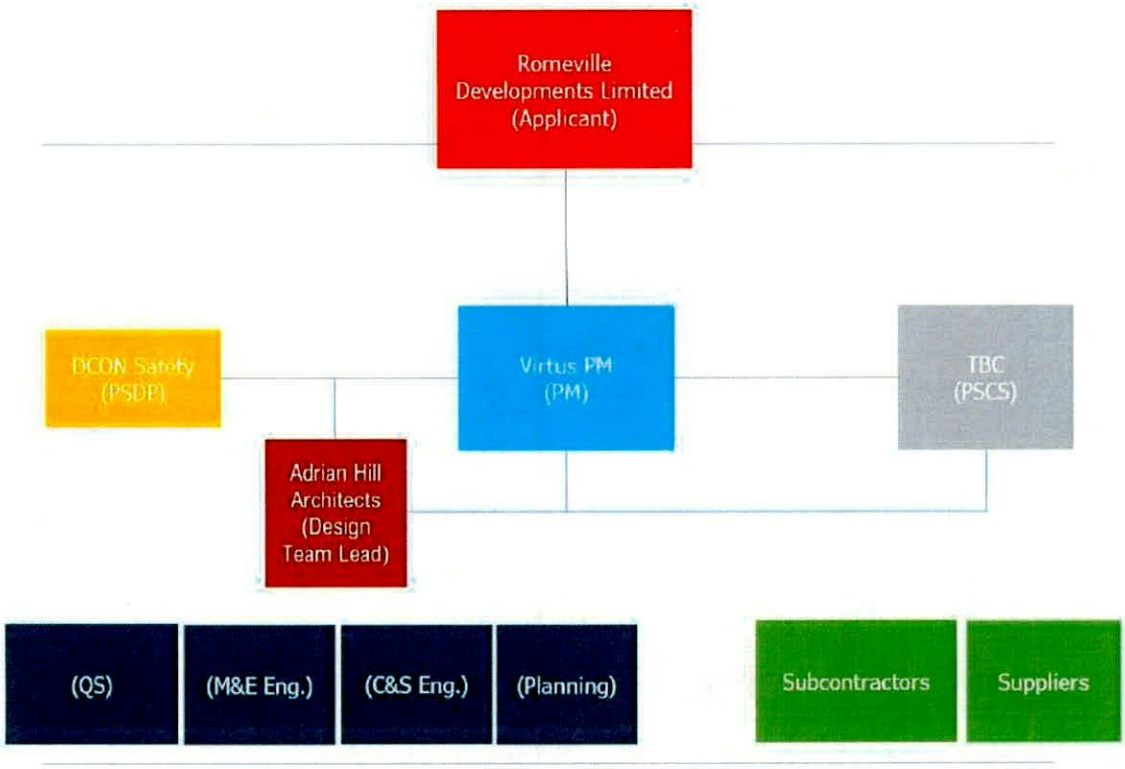
4.4 Working hours

It is envisaged that typical working hours during the construction phase will be as follows:

4.4.1 Working hours

- Romeville Developments Limited will establish a Client Liaison Officer (CLO) as required so that particular issues | complaints may be quickly identified and responded to. CLO details should be shared with residents | nearby property occupiers;
- Working hours are determined and conditioned by the Grant of Permission - envisaged working hours for works is 07:00 – 19:00 Monday to Friday and 08:00 – 14:00 on Saturday.
- It is recognised that there may be circumstances where the restriction on hours of work cannot be adhered to e.g., concrete pours, power floating works etc. In these circumstances the Works Contractor should be required to provide written agreement with FCC before any works start outside normal hours;
- Where out of hours works are noise sensitive, such exceptional events will only be permitted to be undertaken when all other alternatives have been considered and exhausted. Any night-time operations in particular will comply with good alleviation practices as specified by British Standards or similar;
- All such works above should be preceded by written approval from the Planning Authority, showing evidence of consultative communications with local residents and businesses. The Works Contractor in these circumstances must ensure that appropriate notice (10 working days) is given to the CLO to update FCC and local residents | businesses;
- Deliveries should be sequenced 'just in time' to ensure that their arrival and departures time are outside high traffic interface periods. Delivery vehicles are to enter and exit the site through an agreed travel plan detailed within the CMP. The Works Contractor is responsible to ensure compliance with this;
- Deliveries are not permitted to hold | temporary wait on any approach public roadway unless previously agreed with FCC Roads and Traffic Department;
- Operatives may access their site prior to 7:00 but are not permitted to operate construction machinery before 07:00; and
- No significant work will commence before 07:00 with no vehicles queuing on public roadways unless otherwise agreed with FCC Roads. Vehicle engines should be required to be turned off while onsite before 07:00.

5 Project particulars



6 Development health & safety requirements

6.1 Client strategic health & safety drivers

Romeville Developments Limited have a controlling influence on how the overall programme of project works should be managed which brings with it certain responsibilities with respect to health and safety. Where a contractor has been given possession of a works area, this area will form their respective site. Romeville Developments Limited will seek assurance and evidence to ensure each parties' compliance with regard to planning conditions | current good practice standards | statutory instruments should be in place for the works.

Romeville Developments Limited will seek to ensure that there is effective communication and coordination between those operating alongside, adjacent or in other areas of the works through their Community Liaison Plan and oversight and also through management by their Community Liaison Officer. Romeville Developments Limited in planning, procuring, and implementing the safe delivery of the project recognise the complexity, vast scale of the project and the inputs necessary to deliver it. Equally it understands the necessity of:

- Continued support from project stakeholders including but not limited to local residents, FCC, TII, NTA, Irish Water, ESB etc.;
- Committed support from the Works Contractor and their supply chain to comply with their commitments within this D-CMP and their site-specific CMP to seek to achieve a 0.00 Accident Frequency Rate on the project;
- Clear definition and allocation | delegation of roles and responsibilities to the parties best able to manage the task;

- Effective explanation of development strategies for the safe planning and execution of works through this CMP. Regular (monthly) coordination meetings with but not limited to local residents, business owners etc. should be conducted in compliance with the Community Liaison Plan (refer also to Section 8.1); and
- Procurement and management of a contractor competent to progress & complete the works on behalf of Romeville Developments Limited willing to proactively engage in a collaborative manner to advance the works to the benefit of every stakeholder.

6.2 Particular risks

Particular Risks	Yes	No
Burial under earth falls	✓	
Engulfment in swampland		✓
Falling from a height	✓	
Work which puts persons at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a legal requirement for health monitoring ▪ Covid 19 ▪ Asbestos containing material is noted within the property | structures scheduled for demolition. Areas should be communicated to all before work is commissioned and starts. A Pre-demolition | Refurbishment Asbestos Survey should be completed post planning. To control this hazard, access to buildings where ACM has been identified and confirmed should be restricted and will only be granted to persons who have completed a ½ day Asbestos Awareness course delivered by a competent training provider (e.g., Active Safety Limited). The course includes the training in RPE | Respirator use which shall be worn at all times in the main factory building. Only suitably trained and experienced ACM Remediation Contractors should be permitted to access the areas of concern.	✓	
Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Article 20 of Directive 80/836/Euratom – Presence of phone masts on nearby roofs ▪ Non-ionising radiation (NIR) is the term used to describe the part of the electromagnetic spectrum covering two main regions, namely optical radiation (ultraviolet (UV), visible and infrared) and electromagnetic fields (EMFs) (power frequencies, microwaves, and radio frequencies) ▪ At typical telecommunication frequencies, absorption of RF energy leads to heating of body tissue or may lead to unearthed conducting bodies becoming charged. The heating effect is most pronounced, and most hazardous, when the wavelength tends to correspond with the physical dimensions of body		✓

structures. Touching large, unearthed conducting structures exposed to EMFs may lead to RF shocks or burns. ▪ On telecommunication masts, the sources of the EMF hazard are transmitting antennae; there is no EMF hazard at receivers. However, a wide variety of antenna types exist so it is difficult to determine whether an antenna is a transmitter or a receiver or both and whether it is transmitting at any particular time. ▪ Levels of absorption of RF energy are dependent on the transmission frequency and the field strength. Field strength is dependent on distance from the source		
Work near high voltage power lines ▪ There are overhead voltage cables located near to and onsite. All work in the vicinity of the overhead power lines should be in accordance with the HSA/ESB Code of Practice for Avoiding Danger from overhead and under-ground lines. All craning and similar high-reach plant used onsite should be planned in advance and operated in accordance with Part 8 of the Code of Practice for Avoiding Danger from Overhead Electricity Lines. Equipment should be orientated so any failure should be directed away from the hazard zone (e.g., crane set up, so boom is orientated facing away from the hazard zone). Any work with the potential to encroach on the exclusion zone, be it advertent (e.g., crane operator slews boom too far) or inadvertent (e.g., excavator operator suffers heart attack and slumps over the controls), will only be conducted with prior consultation with the utility owner (ESB Networks). Service diversion work may be needed reflecting servicing needs of the development site including the site	✓	
Work exposing persons at work to the risk of drowning (water in excavations etc.)	✓	
Work on wells, underground earthwork, and tunnels		✓
Work conducted by divers at work having a system of air supply		✓
Work conducted in a caisson with a compressed air atmosphere		✓
Work involving the use of explosives		✓
Work involving the assembly or dismantling of heavy prefabricated components (temporary work and permanent structural members | infill walls | floors | stairs | glazing units | flues | water tanks | stacks | plant & equipment etc.)	✓	
Any other work, which may involve 'Particular' risk e.g. ▪ **Tower-crane use not applicable to this site**. Mobile, or self-erecting cranes use only. Proposed houses < 10.20m tall, but in any event any crane use would need to be discussed in advance with Casement Aerodrome (and in this location there is a statutory legal obligation [under IAA Order S.I. 215 of 2005] to give at least 30 days' advance notice to both IAA and to Casement Aerodrome). Notification to Casement should be given to them at 01-4037681 or via airspaceandobstacles@defenceforces.ie (or via the Department of	✓	

Defence property Management Branch). The Air Corps may need to issue formal notifications (via IAA "NOTAMs") to pilots, and they would probably require any cranes to be fitted with aircraft warning lights. ▪ **Keeping all (or most) crane use below ~36m** – i.e., below the level of the adjacent Approach Surface to Runway 04. ▪ **Use of lasers for surveying** onsite needs to be strictly controlled, as these could interfere with aircraft along the nearby flight path (which is about 400.00m north-west of the site) ▪ Necessity maintain continual safe access and operational continuity of neighbouring structures; ▪ Invasive species presence onsite to be confirmed ▪ Global Covid 19 – biohazard outbreak ▪ Adjacency of site to public and private properties and amenities; ▪ Demolition - Demolition works that require careful and considered temporary works – risks include: ☐ Falling materials during demolition activities; ☐ Uncontrolled collapse of structure or parts of structure; ☐ Presence of connected services; ☐ Noise and vibration; ☐ Fire creation. ▪ Temporary work design elements e.g., boundary retention (in selected locations) | phased traffic management solutions | secondary and temporary permanent works stability measures e.g., bracing | hoarding | scaffolding | floor propping | hoist propping | onsite construction access route amendment during phased delivery | site establishment | self-erecting crane bases etc. ▪ Animal waste, decaying litter or pests may be found when entering roof spaces and can cause ill health in roofers. Breathing in dust from dried bird droppings can cause psittacosis and contact through broken skin with rat urine can lead to Weil's disease (leptospirosis). Droppings should not be removed by using high pressure water. This can cause dust from the droppings to get into the air where it could be breathed in. However, generally wetting down the work area is advised. Containing the work area with plastic sheeting should also be considered. If appropriate, a P3 or FFP3 mask should be used. Overalls should be worn and replaced when they are soiled. Workers who may be susceptible to an infection should not be directly involved in the removal of droppings. Exacting standards of personal hygiene by provision and use of adequate Welfare facilities are essential for controlling these risks; ▪ Site works adjoining | adjacent to residential properties a creating a constant interface risk; ▪ Site access – local roadway is capable of tolerating site traffic ▪ Manual handling – generally; ▪ Working at height – generally and roof work; ▪ Presence of vermin | birds | Weil's disease; ▪ Dust creation (silica and other hazardous chemical exposure); ▪ Construction vehicle movements onsite and entering | leaving site; ▪ Psittacosis health risk;		

▪ Working around the live services; and ▪ Reversing vehicles		

6.3 Contractor requirement - considerate contractor behaviours

It will be a condition of working on the project that the Works Contractor develops their delivery methodology around the following headings:

6.3.1 Care about appearance

- Constructors shall ensure sites appear professional and professionally managed;
- Ensuring that the external appearance of site enhances the image of the industry;
- Being organised, clean and tidy;
- Enhancing the appearance of facilities, stored materials, vehicles, and plant; and
- Raising the image of the workforce by their appearance.

6.3.2 Respect the local community

- Constructors shall have regard to the principles and requirements set out in the CLP (Section 8.1) for ensuring the timely and effective communications with all affected parties, with provision of accurate, relevant, and regular information of works proposed and being undertaken;
- Informing, respecting, and showing courtesy to those affected by the work;
- Minimising the impact of deliveries, parking, and work on the public highway;
- Contributing to and supporting the local community and economy; and
- Working to create a positive and enduring impression and promoting the Considerate Contractors Scheme Code.

6.3.3 Protect the environment

- Constructors shall protect and enhance the environment;
- Identifying, managing, and promoting environmental issues;
- Seeking sustainable solutions, and minimising waste, the carbon footprint, and resources;
- Minimising the impact of vibration, and air, light and noise pollution; and
- Protecting the ecology, the landscape, wildlife, vegetation, and water courses.

6.3.4 Secure everyone's safety

- Constructors shall attain the highest levels of safety performance to ensure a 0.00 Accident and Incident Frequency Rates;
- Having systems that care for the safety of the public, visitors, and the workforce;
- Minimising security risks to neighbours;
- Having initiatives for continuous safety improvement; and
- Embedding attitudes and behaviours that enhance safety performance.

6.3.5 Value their workforce

- Constructors shall provide a supportive and caring working environment;

- Providing a workplace where everyone is respected, treated fairly, encouraged, and supported;
- Identifying personal development needs and promoting training;
- Caring for the health and wellbeing of the workforce; and
- Providing and maintaining exacting standards of welfare

6.4 Contractor requirement - safe work cycle

The concept of a safe working cycle is a type of management tool that can be used to solve difficulties in several aspects of the management systems.

6.4.1 Safe working cycle

A safe working cycle is the combination of construction quality and construction safety. It stresses that through the safety policy and objectives, as well as the formulation of a safety management system, the company management can change the traditional enforcement on safety measures into a cooperative and coordinated method of dealing with safety issues. This cycle clearly indicates the responsibilities of different workers. It places particular emphasis on the leadership of the frontline management at construction sites, e.g., project leaders and foremen. The cycle encourages mutual trust between supervisors and workers at the construction sites and facilitates direct communication. The aim of the safe working cycle is to integrate quality and safety aspects of construction so that adequate considerations have been taken for each aspect to achieve a cost-effective construction project.

The safe working cycles are classified into daily, weekly, and monthly basis. The period is determined by the importance, and urgency of the construction activities. Daily cycle is comparatively thorough and detailed.

6.4.2 Daily safe working cycle

The daily safe working cycle basically includes eight items. These items are arranged according to the daily schedule of the project and can be shown on a time chart. This means that each person can carry out their responsibilities according to the schedule. The Works Contractor shall set the working hours of each item according to its own conditions and the characteristics of the project.

6.4.2.1 Morning safety meeting (delivered by all subcontractors to their employees)

The morning safety meeting is the first step of the daily safe working cycle. It includes:

- The announcement of important matters (such as project development/special activities, special safety information, etc.); and
- Inspection on personal protective equipment and dressing.

Benefits

- Gives workers time to prepare themselves psychologically for work and pay special attention to the safety rules and the working environment of the work sites; and reminds them that they shall check on their outfits and personal protective equipment;
- Promotes team spirit and cooperation; and
- Provides an opportunity to convey safety message and raises workers' vigilance.

Contractor points to note

- Theperson-in-charge of the morning safety meeting shall have a thorough understanding of conditions at the site, be well informed of the safety inspection results and the content of the process safety discussions for the previous day;
- The meeting shall not exceed the time limit of 15 to 20 minutes;
- Ensure that the morning safety meetings do not fall into a tedious routine;
- Morning safety meeting on Monday may focus on major safety issues for that specific week. It can be implemented together with the monthly safety meeting;
- Considering the differences in the nature of different projects or corporate cultures, morning safety meeting can be divided into several stages and implemented at various time periods or changed into afternoon meeting in case not all workers can attend. The meeting can be postponed with a 24hrs notice, in order to fit into the working schedule for specific activities; and
- Records of attendance of the subcontractor workers are required to be kept encouraging more workers to participate through process safety discussions and safety committee meetings.

6.4.2.2 Hazard Identification Activity

Hazard Identification Activity is the second step in the Daily Safe Working Cycle. Team leaders or Foremen lead team members to identify the hazards in the day's work and make the workers aware of the degree of risks and measures for precaution. Records of these awareness sessions are to keep.

Benefits

- The participation of front-line workers reduces resistance to the implementation through recognition and acceptance of the safety measures by front-line workers themselves;
- Team spirit can be enhanced (though the discussion at the workplace) as part of practical safety training;
- The safe working circle can be reinforced, and the safety consciousness increased;
- It encourages the participation of individuals so as to make each one singularly and individually responsible;
- It deepens the understanding of the working process;
- It facilitates the contact between the Works Contractor and other subcontractors in order to reduce possible adverse impact on efficiency and prevent accidents that may be induced by lack of communication and misunderstanding;
- To manage the project properly so as to prevent accidents; and
- To enhance discipline (to wear safety equipment and proper clothing).

Contractor points to note

- The content of the Process Safety Discussion for the previous day and the information announced at the morning safety meeting should be helpful in initiating follow-up actions for the Hazard Identification Activity;
- Foremen shall be familiar with the procedures for the project, pre-arrange the work, set up guidelines for workers to follow, and try to understand the personalities for each worker;

- Foremen shall encourage workers to participate in the Hazard Identification Activity and make them aware of the importance of safe working;
- Frequency of such activities – depending on the complexity of work, one additional Hazard Identification Activity can be held before the start of work in the afternoon. Depending on the arrangement of the work, it can be conducted on the previous day. – In case of any change in the working procedure, one special meeting may become necessary;
- In the Morning Safety Meeting, the safety requirements are only mentioned in broad lines; relevant safety instructions shall be explained in detail during the Hazard Identification Activity;
- Foremen shall be well prepared on the previous day in order to fulfil their responsibilities for supervision. They shall, based on the working guidance of the recorded | minuted Process Safety Discussion from the previous day, lay out the process of the work, provide guidance, make work arrangements, and perform other duties such as training, inspections, reports as well as discussions;
- Work guidance includes:
  - Objectives of the work, implementation methods, procedures, goals, necessity, and importance thereof;
  - Construction area, passage layout, methods, and the routes for transporting construction materials;
  - Working hours and sequence;
  - Allocation of responsibilities for workers and personnel arrangements (appropriate assignment);
  - Coordination with other trade people on site;
  - The use of construction materials;
  - Machinery, transporting equipment, tools, protective devices;
  - Highly hazardous situations at work;
  - Reporting channels; and
  - General summary on working process upon completion of the project;
- Making a summary after collecting workers' comments on the following:
  - Safety critical area; and
  - Examples of the previous accidents in the same line of work.
- Workers (including plant operators) shall participate in the Hazard Identification Activity; and
- Personnel from the Works Contractor shall participate as much as possible.

6.4.2.3 Prior-to-work Inspection

A Prior-to-work Inspection is essential and shall take place immediately after the Hazard Identification Activity. Before the start of work and the usage of equipment, all the tools, equipment, machineries, and materials shall be in safe and proper condition.

Benefits

- Tools and equipment shall be in good working condition in order to bring about better efficiency and help reduce accidents;

- To identify problems before the start of work and rectify them and have prevent the problems from getting worse and thereby reduce losses; and
- Compliance with laws and regulations to avoid lawsuits.

Contractor points to note

- Record of the inspection results of materials, equipment, and machineries to be kept;
- Conduct all the mandatory and other planned inspections;
- Inspect the conditions of construction sites and the environment daily;
- Make safety inspections on selected key areas, rectify problems discovered and stop work wherever appropriate;
- Report results to the responsible persons after safety inspection. If necessary, the project manager of the Works Contractor and the safety officer shall also sign on the inspection reports and monitor the programme of connective actions;
- Regardless of the ownership of materials, equipment and machineries, the principal contractors shall ensure that they are used only after proper inspection;
- Inspections shall be performed before the tools and equipment are moved to the sites; and
- If the inspection is done in places of considerable risk, the person shall follow the Safety Procedures defined.

6.4.2.4 Guidance & Supervision at Work

Guidance and Supervision at Work is another aspect of safety monitoring. It mainly falls within the responsibilities of contractor project leaders. This includes keeping track of implementation of the safety measures from the Hazard Identification Activity, checking the compliance and addressing problems that may occur during its implementation.

Benefits

- Understanding the project progress and its characteristics facilitates communication with and acceptance by the workers;
- Project leaders can solve problems directly;
- Timely check on the compliance with safety instructions and procedures; and
- Coordinating all kinds of activities.

6.4.2.5 Safety Inspection

The safety inspection conducted by senior management at construction sites serves both as supervision, and assurance for the safe operator of daily work. Senior management can quickly solve any safety problems that may affect the progress of work.

Benefits

- It demonstrates the company's commitments to safety;
- It enables senior management to understand site safety problem and solve them;
- It promotes cooperation among subcontractors to solve problems; and
- It can be used to assess the performance of subcontractors.

Contractor points to note

- Special attention shall be paid to these high-risk activities mentioned in previous day's Process Safety Discussion;
- The project manager/general foreman shall set an example, communicate with the workers, and listen to their opinions while doing the Safety Inspection; and
- The Safety Inspection shall not be cancelled without a solid reason. The job can be assigned to some representatives instead when necessary.

6.4.2.6 Process Safety Discussion

Process Safety Discussion provides an opportunity for communication and cooperation in solving problems. Solutions are sought for problems identified during the day before these problems worsen or persist.

Benefits

- Confirm the progress of the day's work and decide on the procedures of next process, including coordination of different activities, with an aim to solving problems quickly and enhancing efficiency; and
- Assign next day's work, with safety directions and measures to subcontractor.

Contractor points to note

- The Discussion shall focus on site safety. Time shall not be wasted on unrelated issues;
- Subcontractors can put forward topics for review during the meeting;
- The summaries of the Process Safety Discussion shall be announced at the Morning Safety Meeting the next morning; and
- Project managers, general foremen and safety officers shall make a full preparation of the safety materials for the Discussion.

6.4.2.7 Tidying as you go

This step is designed to ensure that all the equipment, tools, instruments, and environment of the workplace are tidied up after a day's work, in preparation for the next day's work. This process consists of more than a general cleaning. All required materials and tools are classified and stowed accordingly before the end of a day's work.

Benefits

- Tidying up materials, equipment and tools help reduce accidents;
- Efficiency is enhanced; and
- After-work tidying up assists to maintain a safe environment when workers return to work the next day.

Contractor points to note

- Workers shall understand the benefits of good housekeeping practices. It is more than just discarding trash;
- Person-in-charge of the site shall allocate sufficient space for stowing materials/ wastes;

- Since the workplace may pose a threat to safety & Health before tidying up, the tidying up crew shall collect, store/discard wastes, especially hazardous materials, and those with toxic property according to the safety instructions;
- Proper labels shall be affixed on containers for dangerous substance.

6.4.2.8 Final Check after Work

Daily Safe Working Cycle ends with Final Check after Work. The final check is to ensure that no accident will occur at construction sites after work, be it fire, flooding, scaffoldings collapse, theft, or trespassing, in order to prevent loss and affect members of the public.

Benefits

- Prevention of accidents and energy conservation;
- Assessment on workers' performances in housekeeping; and
- Compliance with laws and regulations.

Contractor points to note

- Special check on workplaces and their vicinity to high-risk works is a priority;
- Watch out for people who may enter the construction sites through unlocked gates or external hoarding boards;
- Under harsh weather, double-check the drainage systems to see if they are blocked, if the scaffoldings are stable, and if the materials are stored in the right place. Make sure safeguards are in place against storm and rain; and
- Maintain supervision over those who are working overtime and ensure that they are aware of emergency procedures. Supervisors shall be aware of:
  - agreed finishing times and emergency procedures as per the approved notification for emergency works; and or
  - an extension of work times if needed and permitted (refer to the CLP in Section 9.10).

6.4.3 Weekly safe working cycle

Weekly Safe Working Cycle aims at making an interim review of the performance in the past week and deciding for the future. It consists of 3 steps as follows:

- Inspection & Check;
- Process Safety Discussion; and
- Weekly Tidying Up

6.4.3.1 Weekly Safety Inspections and Weekly Check Up

The Works Contractor and sub-contractors shall jointly conduct a weekly inspection. They can therefore strengthen their cooperation and eliminate the safety problems found during inspection and define their respective responsibilities on-the-spot. This will provide information for the management in their self-appraisal and underline the commitment of the management. The Works Contractor and sub-contractors (competent persons) also need to inspect their own machines, electrical installation and scaffolding on site on a weekly basis to ensure the sound operation of such equipment and facilities.

Benefits

Weekly inspection shall:

- Promote communication between the Works Contractor and sub-contractors and clarify each party's responsibilities; and
- Underline the commitment of senior management.

Weekly check-up shall:

- Spot problems as early as possible before they get worse; and
- Conform to relevant laws and regulations.

Contractor points to note

- The Works Contractor shall ensure all sub-contractors participate; and
- If the project manager is unable to attend, a representative can be appointed. The manager shall nevertheless be kept up to date with the inspection results to demonstrate his | her interest.

6.4.3.2 Weekly Process Safety Discussion

The weekly Process Safety Discussion shall promote the communication between people at various levels and sub-contractors, summarising the safety performances in the last week and planning for construction work for following week.

Benefits

- To promote communication and help sub-contractors improve their work; and
- To create opportunities for bringing problems to attention and for an early remedy.

Contractor points to note

- The Works Contractor project manager or his | her representative shall chair the meeting and all participants are encouraged to express their views at the meeting; and
- The minutes on the Weekly Process Safety Discussions shall be distributed as soon as possible so as to take follow-up actions.

6.4.3.3 Weekly Tidying Up

This step is to thoroughly tidy up the site to prepare for work the following week.

Benefits

- To create a safe working environment;
- To reduce accidents caused by at risk conditions;
- To ensure required materials are ready for use;
- To keep the site in good working order and discipline; and
- To improve efficiency.

Contractor points to note

- Avoid over or under work in the tidying up. The objective is to meet the standard set by the client;
- Machinery shall be cleaned according to relevant safety instructions;
- The tidying up results shall be evaluated as a measure of motivation;
- Ensure no place is left out; and
- Senior management's involvement ensures a more persuasive outcome.

6.4.4 Monthly safe working cycle

Monthly Safe Working Cycle is to review the site performance and progress, to improve the workers' safety awareness through training and reward schemes, and to recognize their commitment and cooperation. Monthly Safe Working Cycle shall include the following:

6.4.4.1 Monthly Inspection

Monthly Inspection aims at improving the management of machines, equipment, tools, and materials. It shall be conducted in line with relevant rules and regulations.

Benefits

- Regular in-depth inspections on machines and equipment serve to identify problems at the early stage; and
- Keeping the machines and equipment in constant serviceable condition will also improve the productivity and quality.

Contractor points to note

- The checking schedule and procedure is worked out in advance;
- Assistance from services companies (as required); and
- Plant | equipment to be checked include pile drivers, cranes, earth-moving equipment, heavy-duty transportation plants, pressure vessels, welding/cutting kits, portable and fixed electrical installations, etc.

6.4.4.2 Monthly Safety Training

Through Monthly Safety Training, workers can reinforce the concept and awareness of safety, sharpen necessary skills, gain relevant knowledge, and foster a correct attitude. Examining the causal root of accidents | incidents | near misses, the same or similar events can be avoided.

Benefits

- Through safety training, workers will continue to master the safety skills and knowledge required on the project and foster positive attitude on safety.
- Safety training underlines the importance senior management attaches to workers' safety and health.
- Safety training is a legislative requirement.

Contractor points to note

- The training courses shall meet the workers' needs;

- The objective and methods of training shall be determined;
- Training programmes shall be implemented according to plan;
- The effectiveness of training shall be evaluated.
- The improvement actions required shall be done after evaluation.
- The training shall be of appropriate duration and shall not be too long.

6.4.4.3 Monthly Safety Meeting

Monthly Safety Meeting shall be held together with the Daily Morning Safety Meetings and include, in addition to the routine issues of morning meetings, the safety promotion activities to improve the workers' sense of safety awareness and to present awards.

Benefits

- Other than benefits of Daily Morning Safety Meeting, the Monthly Safety Meeting can also boost the morale workers.

Contractor points to note

- Safety promotion shall be designed to foster the safety culture of the client;
- Safety awards shall be fair in commending those individuals, groups with good safety performance;
- Safety promotion shall have well-defined topics and objectives; and
- Senior management shall enthusiastically support the safety promotional activities.

6.4.4.4 Safety Committee Meeting

Monthly Safety Committee Meetings aim at strengthening communication among concerned persons on site, eliminating any misunderstandings or lack of coordination at work, reviewing the past safety records and planning for the coming month. As a result, the workers' safety awareness can be improved, and accident reduction can be achieved.

Benefits

- The communication among workers of different trades is strengthened, their work better coordinated, and accidents avoided; and
- As members of the Safety Committee come from various trades, safety measures formulated at the meeting shall be more practical and acceptable to them.

Contractor points to note

- The Works Contractor project manager shall chair the Safety Committee with the site safety officer acting as secretary of the Committee;
- The following issues should be discussed at the meeting:
  - weekly and monthly construction progress;
  - safety measures on special tasks;
  - coordination on distinct types of work; and
  - client instructions.
- Discussion on the progress, special tasks and work cooperation could ensure safety at work;

- Sub-contractors shall raise any problems concerning their work and the coordination with other parties before and after work commencement. Risk Assessment Method Statement (RAMS) shall be in place after this discussion;
- Before the meeting, the agenda shall be studied, and any other relevant issues shall be added;
- Each Safety Committee member shall fully understand all the issues discussed during the meeting;
- The meeting minutes shall be distributed within 48hrs of meeting or as soon as possible, so that every worker should be informed of the meeting and their comments on the meeting can be collected; and

The meeting shall progress with the right pace & shall not drag on too long

7 Design (preconstruction and construction) stages

7.1 Preconstruction stage

7.1.1 Survey needs

A number of surveys will be undertaken to support ongoing project design. These include but not limited to:

- Site investigation survey;
- Topographical survey;
- GPR survey;
- Building services survey;
- Pre-demolition asbestos survey;
- Measured survey; and
- CCTV survey of all existing drainage services adjacent to the site.

7.2 Construction stage (preparatory works)

7.2.1 Enabling works

7.2.1.1 Preparatory and site set up works (site wide)

- Site cabin delivery and placement - office accommodation and other construction facilities should be located on site for the construction phase. All units should be of a high standard in accordance with statutory regulations as a minimum and the current CIF C-19 Safe Operating Procedures. The co-ordination of people and materials on site should be one of the key activities throughout the construction phase;
- Completion of all outstanding required surveys;
- Implementation of agreed temporary traffic management plan (TMP) on the basis of the following:
  - Aware of the complexity of logistical challenges faced by construction work, Romeville Developments Limited want to prevent traffic congestion due to construction works and negative impacts on residents in the immediate surroundings of the site area;
  - The site is well designed and laid out facilitating the construction of multiple structures from ground floor level. Safe construction access is a priority. This priority will be informed by vehicles properly selected with adequate supervision and monitoring of

actual working practices that will allow works to proceed with construction in a safe, timely and orderly manner without adversely affecting or impacting Stoney Hill Road;

- Measuring the against any similar like phased or residential project(s) flags no abnormal | unknown risks;
- This logistic access strategy prioritises just-in-time deliveries, eliminating most of material handling and storage on site, shortens the time of project completion by eliminating reasons of work stoppage and minimises disturbances to neighbouring residential traffic;
- Multiple construction access point routes will ensure the ability of the Works Contractor to coordinate, schedule and plan works effectively & efficiently so as to control foreseeable key construction logistics impacts; and
- Appropriate hoarding | screening | crash barriers of areas where public and vehicle travel interface will be managed as per the detailed Contractor TMP

- Contractor temporary service installations etc.;
- Construction of appropriate hoarding to neighbouring properties;
- Installation of CCTV coverage or other agreed security means;
- Set up of required noise | dust | vibration monitoring stations | receptors in predetermined areas closest to sensitive locations if conditioned under the Grant of Planning;
- Review environmental controls as defined within the Grant of Planning;
- Review of pest control needs i.e., pigeons | rats (specialist contractor);
- New builder's supply main board to be installed in an appropriate determined location agreed between the M&E designer, contractor, and temporary works electrician;
- New main board will also feed the following:
  - site security load | requirements; and
  - all storage area requirements.
- Site-wide contractor supply and distribution should be agreed with the ESB;
- Termination of all services within the property facilitating planned MEP dismantling | removal via crane.

7.2.1.2 Pre-demolition | Refurbishment Asbestos Survey (RDAS)

A Pre-Refurbishment & Demolition Survey will be conducted in all accessible areas of the site for materials suspected of containing asbestos. The report will seek to identify confirmed and strongly presumed asbestos materials. Contaminated material (if identified) should be taken to a suitably licensed or permitted facility before being exported abroad and disposed of through landfill. The transfrontier shipment of asbestos waste is subject to control procedures under EU and national legislation. All transfrontier shipments of waste originating in any local authority area must be notified to and through FCC at the National TFS Office. All asbestos removal works should be conducted by a competent contractor in accordance with Asbestos at Work Regulations 2006-2010 (amended) and associated Approved Codes of Practice.

7.2.1.2.1 Legislation and Codes of Practice

- The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010 (amended) (S.I. No. 386 of 2006), apply to work where there are confirmed and/or presumed asbestos containing materials present. These regulations apply in particular to any person and/or employer working with or removing asbestos; and

- The Safety, Health and Welfare at Work (Construction) Regulations, 2013 (S.I. No. 291 of 2013 - 2021) applies to any building, installation, repair, demolition and asbestos removal work.

7.2.1.3 Asbestos removal (where found present)

- Licenced asbestos containing material removal in adherence with agreed works phasing plan;
- Non-licenced asbestos containing material removal in adherence with agreed works phasing plan; and
- Reoccupation certification should be provided for all areas prior to soft strip works being undertaken.

7.2.2 Demolition

A detailed R&WMP should be required to be prepared by the Works Contractor upon grant of planning permission prior to commencement on site. The detailed R&WMP should be presented and agreed with FCC works pre-commencement.

7.2.2.1 Asbestos remediation works (as deemed present post refurbishment | demolition asbestos survey completion)

7.2.2.1.1 Competent contractor selection criteria

- Assess ability to do work
- Safety statement;
- Previous experience;
- Training policy and records;
- Equipment and Face Fit records;
- Adequate insurances;
- Sample method statement;
- Trade Association Membership;

The Works Contractor is obliged to ensure:

- Work is risk assessed for all inherent hazards;
- Method statement detailing work method and necessary control measures (e.g., wet stripping, shadow vacuuming etc.;
- Work is correctly notified to HSA;
- Correct site management – segregation and spread of contamination is eliminated by use of enclosures and negative pressure units
- Appropriate insurances are held; and
- Correct arrangements for waste disposal i.e., Waste Transfer Forms.

7.2.2.1.2 Segregation of works from others

- Asbestos work areas shall be segregated from all adjacent work-free areas or structures using appropriate physical barriers to prohibit and give visual warning of unauthorised access to the works area(s);
- Warning notices shall be attached in a conspicuous position of work area every time and shall remain posted until removal work has been completed. No matter what the existing site condition and the extent of contamination are, workers | design team | project team members seeking access to the main building must wear appropriate air respirators until clearance certification is completed;
- Full-body protective clothing and negative air pressure environment is required by all in the main building as seriously damaged ACM | ACD has been found on site. Any movable items within the work areas shall be cleaned by wet-wiping and vacuuming with High Efficiency Particulate Air (HEPA) filter equipment. Any unmovable objects and surfaces without ACM | ACD shall be decontaminated by a vacuum cleaner fitted with HEPA filter and then covered with two layers of polythene sheeting.

7.2.2.1.3 Working arrangements

- The competent asbestos contractor will ensure that all operatives are aware of and fully understand the contents of their RAMS document and ensure that all operatives engaged in these works have signed onto & understood the methodology and have been briefed on and will adhere to the site rules set out by the Works Contractor;
- The asbestos contractor will consult with the Works Contractor | Project | Site Managers to enable remediation works can be separated with no activity conducted next to or near the enclosure whilst removal and air testing is being conducted;
- The Works Contractor to confirm that all water | power | services have been disconnected and proven dead;
- 110v power and water shall be supplied by the Works Contractor;
- For the removal of friable ACM or ACM with dioxin contaminated materials in the vicinity, a full containment under negative pressure is required to ensure airtightness of the enclosed work area;
- A portable, purpose-built smoke generator should be used to evaluate for airtightness of the containment prior to the actual asbestos removal work;
- Protective overalls | RPE respirators must be worn respiratory protection to be by all accessing the main building until such a time that the building has been certified clear of ACM | ACD; and
- All 240v power supply it should be transformed to 110v power for plant & equipment used for asbestos removal.

7.2.2.1.4 Abatement high level methodology (to be reviewed and validated by the asbestos contractor)

- Inside the containment, all workers should wear approved full-face powered air-purifying respirators of minimum nominal protection factor 100, equipped with HEPA filters, as well as full-body protective clothing with hood and shoe covers. If necessary, additional battery powered lights should be placed inside the work zone to maintain sufficient lighting;
- While ACM | ACD is being removed, impact air monitoring should be conducted as scheduled to cover the entire dioxin removal process to detect for any ambient dioxin concentration. Leakage air samples outside the containment should also be collected daily during the

asbestos removal work to check for any escape of fibres from the enclosed work area. If air samples indicate fibre counts greater than original background levels or greater than 0.01 fibre/ml, whichever is larger, work should stop immediately for inspection and remedy;

- One personal air sample for every 4 workers on each shift should be taken to monitor fibre exposure level throughout the asbestos removal process inside each containment;
- Hand tools (e.g., hammer, chisel, hand-drill and pliers) should only be used to carefully scrabble ash material with continuous HEPA-vacuuming or they are used to break up and cut the material surrounding the ACM. The ACM incorporated material should be made wet by spraying wetting agent such as polyvinyl acetate (PVA) or amended water before and during cutting. Any particle release during the removal process should then be kept to minimum by spraying the wetting agent and HEPA vacuum cleaner should be used to remove debris as it is created;
- All wastewaters should pass through a filter of an approved type, for removal of particles down to 5 microns in suspension, before being discharged into the drainage system;
- Debris should be collected into waste bags and duct tape sealed as soon as it is generated. The workplace atmosphere should be mist-sprayed continuously along with stripping and wire-brushing;
- Asbestos waste properly wrapped and sealed should be transported out through the decontamination unit; and
- When the ACM has been removed, all stripped metal surfaces should be wire-brushed carefully to remove all residues. The metal body could be cut into sections of manageable size using a handsaw, triple-wrapped and then disposed of as chemical waste. Workplace atmosphere should be kept moist by mist-spraying all over.

7.2.2.1.5 Final cleaning

- Upon completion of wire-brushing of surfaces previously covered with ash or asbestos, final clean-up of work area can start. HEPA vacuuming followed by wet wiping should be performed on all surfaces from top to bottom and in a direction from the decontamination unit towards the air movers. Wet-wiping materials such as rags, mops and sponges must be discarded after single use to avoid re-contamination.
- All exposed plastic surfaces inside the containment including the decontamination unit(s) should be sprayed with PVA solution, allowed to dry, peeled off (only the innermost layer) and placed in approved plastic bags for disposal as asbestos waste;
- The 'new' plastic surfaces, i.e., the second plastic layer, should be HEPA vacuumed and wet-wiped to remove any visible debris. The work area should then be ready for penultimate air tests (evenly distributed inside the abatement area) to check on the effectiveness of cleaning;
- If the air test result is below 0.01 fibre/ml, a thorough visual inspection should be made by The asbestos contractor to certify in writing that all visible asbestos has been removed to a satisfactory standard with no visible debris or dust present; otherwise, the containment should be re-cleaned, and penultimate air samples should be retaken. This procedure should be repeated until the penultimate test results are satisfactory;
- Upon written approval by the asbestos contractor, all surfaces stripped of ACM | cleaned of ACD should be sealed with PVA or other suitable sealing materials. The second layer of plastic sheeting should be PVA sprayed and removed for disposal as asbestos waste. Peripheral barrier sheeting including the decontamination unit(s) should remain in place so that the work area is still segregated from the ambient environment;

- The area should be vacated for 12 hours to allow fibres to settle and then all objects and surfaces in the work area should be HEPA vacuumed and wet-cleaned systematically from top to bottom and in a general direction from the decontamination unit(s) towards the air movers;
- Final clearance air tests evenly distributed inside the abatement area should be performed to confirm an air quality of no more than 0.01 fibre/ml is attained or else the work area should be re-cleaned, and further clearance air tests should be conducted;
- Upon satisfactory air test results, all remaining plastic sheeting, decontamination facility, air movers, etc. may be dismantled. All used plastic sheeting, etc. should be disposed of as contaminated waste;
- All used clothes, gloves and polythene sheeting should be treated as contaminated waste and should be disposed of along with the ACM removed. All such waste materials generated are to be treated as the highest category of chemical waste for asbestos waste;
- All tools and equipment that have been used inside containment including air movers, vacuum cleaners, ladders, sprayers, hard hats, goggles etc. must be properly decontaminated by HEPA vacuuming and wet wiping before being taken out of containment; and
- The work area should be thoroughly cleaned with a HEPA vacuum cleaner. The asbestos contractor will conduct a reassurance visual inspection in writing for reoccupation after successful final clearance test and removal of all remaining polythene sheeting, air mover, air locks and disposal of asbestos waste to certify the absence of any visible ash or asbestos debris and proper decontamination of hand tools and transit of packed chemical/asbestos waste to a temporary buffer store.

7.2.2.1.6 Work completion

- The final completion certificate or report, along with air monitoring results and copies of waste disposal trip tickets, should be submitted to the PSDP and Client Project Manager by The asbestos contractor within an agreed period of time e.g., 7 days after completion of the asbestos abatement work; and
- If during the course of asbestos abatement work an accident or adverse weather is encountered, defined emergency procedures should be followed.

7.2.3 Soft strip demolition works to onsite structures (subject to isolation of energy services as applicable)

- All soft strip work shall be conducted in accordance with BS6187 – code of practice for demolition works planned and managed by the Works Contractor site managers and Temporary Work Engineer;
- The soft strip works will include, but not restricted to, the removal of suspended ceilings, fixtures and fittings, non- load bearing partition walls, doors, door furniture, skirtings and sanitary ware, to be facilitated by using handheld tools including, but not restricted to, pinch bars, hammers, mattocks and shovels as Well as the use of our excavator for loading. Further details of the methods of removal are below:

7.2.3.1 Fixtures and fittings

- Any loose fixtures and fittings remaining will where of a suitable size be removed from the building whole, taken to the loading area by hand before being loaded directly into the waiting waste skips. Larger elements should be dismantled/downsized using small tools, reduced into manageable sized sections and again transported to the disposal point.

7.2.3.1.1 Suspended ceilings

- Any suspended ceilings should be removed via mobile scaffold tower or podium steps. Tiles should be lifted and twisted from the suspension system and lowered to the ground, from here tiles should be bundled and then be periodically loaded into the waste skip. Suspension system should be dismantled as tiles are removed with supports cut with croppers, the system then loaded directly into waste skip.

7.2.3.1.2 Doors, door frames & skirting

- Door frames and skirting will to be removed by operatives using pinch bars and hammers. The items are to be gradually prised from their place of fixing, any obtrusions and nails are to be removed or hammered over with all resultant materials then being transported for disposal. Doors should be removed by operatives stripping off the door furniture, prising the door from its hinges again using pinch bars and mattocks, doors will then be either downsized for ease of disposal or carried whole to the disposal point; and
- The entrance doors and fittings at the front and side of this building are to be retained and stored inside the buildings, with the entrances themselves boarded up prior to leaving site.

7.2.3.1.3 Partition walls

- Any stud partitioning is to be removed by the operatives using suitable hand-held tools, namely pinch bars, picks and hammers. The wall structure is to be dismantled by removing the coverings using the hammers and pinch bars. Once exposed, the remaining stud work is to be prized free and de-nailed or have nails hammered over. Resultant arisings are to be transported to the loading area.

7.2.3.1.4 Sanitary ware

- Any sanitary ware, toilets/sinks etc. are to be removed, with the water supply to all toilet facilities capped prior to works commencing. Using hand tools, toilets should be broken from their fixing and lifted out whole then carried by two persons if required to the loading area.

7.2.3.1.5 Floor coverings

- Wooden floor coverings are to be removed by the operatives using mattock picks and shovels. Carpet tiles and vinyl floor tiles are simply to be prised up using hand tools, then bundled and taped with resultant materials transported to the disposal point. Carpets where of a roll-able nature should be cut into strips, whilst still laid, and then rolled up for collection in strips, these will then be transported to the disposal point.

7.2.3.1.6 Fire alarm system

- Any existing fire alarm installations are to be removed as required. This will include the removal of all detectors, interface and associated equipment, accessories wiring, containment and components. The Works Contractor will ensure that any interconnection to other buildings have been diverted | terminated prior to disconnection.

7.2.3.1.7 Voice & data system

- Any existing telecoms and data installation are to be removed as required. This will include the removal of any outlets, panels all associated equipment, accessories wiring, containment and components. The Works Contractor will ensure that any interconnection to other buildings have been diverted | terminated prior to disconnection.

7.2.3.1.8 Aerials (if applicable)

- Any existing satellite | mast systems are to be removed as required to allow full hard demolition. This will include the removal of any cable ladders, trays, trunking, conduits all associated equipment, accessories wiring and components. Service providers are

responsible for all equipment removal. The Works Contractor will provide safe access to these mast and associated infrastructure locations.

7.2.3.1.9 Glass units/Windows

- All glass units and windows should be removed as complete units where possible; an exclusion zone | crash decks should be employed as required and operatives will wear hard hats, safety boots, gloves and goggles. The glass should be handled with care and placed into skips to be disposed of in a safe manner.

7.2.3.1.10 Cold and hot cutting

- During the dismantling/de-planting and demolition process the preferred cutting technique should be to cold cut. All cutting works on site should be conducted as detailed in a separate safe system of work for that task - these safe systems of work will contain the following information: the agreed cutting procedure, detailing safety measures and our intended works process;
- The Works Contractor will limit and strictly control the use of any hot works throughout our works, before any cutting works commences, all residues should be removed / purged from the vessel and any interconnecting pipe work by our specialist contractor. Only once the specialist contractor has provided confirmation / gas free certification will any cutting works proceed;
- The items being de-planted shall be inspected by the Works Contractor site manager before work commences within the area. The item to be cut should be visually inspected and the method of cutting should be agreed. Once agreed the item will then be spray e.g., white spray identifies the item as hot cut, green spray means cold cut or mechanical de-plant and red shows no hot works under any circumstances; and
- Heras panels or screens (dependant on the cutting technique) with relevant warning signage should be placed around the areas where the cutting is taking place to ensure the working area is segregated and no unauthorized personnel access the working area.

7.2.3.1.11 Cold cutting

- Cold cutting or cold removal techniques will take the form of one of the following:
  - 110v Disc Cutter with a cold cut disc;
  - Unbolting flanges;
  - Unscrewing unions; and
  - All electric hand tools used in these techniques should be PAT tested.

Note: Plant inspections should be conducted and recorded in the daily inspection booklets and weekly on as required under statute. Applicable 12 monthly statutory certificates for all plant should be available on site.

7.2.3.1.12 Hot cutting

Hot cutting works should be conducted by trained/experienced operators using oxy/propane cutting equipment. Burning operatives conducting hot works of this nature should be issued with and wear additional RPE/PPE including airstream helmet systems (these minimise the effects of exposure to surfaces containing levels of lead paint), flame retardant overalls and leather gauntlet gloves. In addition, before any hot cutting is conducted, any painted surfaces to be cut should be assessed for lead base paint. If found that the paint does contain lead, then a risk assessment should be conducted, and controls measures put in place to minimize the operative's exposure. Hoses and bottles should be inspected daily for damage or leaks and a Permit to Work system should be in place for all hot works. A fire

risk of each building structure should be assessed before any hot works begin. Should the ground area be considered to be a potential combustible material it should be dampened down to reduce the risk of a fire. Whist the hot works are being conducted; a second person should be monitoring the works with a fire extinguisher to hand. All hot cutting will cease >1 hour before end of working day - this is to allow a fire watch to take place to ensure that all areas have cooled down and the is no risk of fire before operatives have left site. Once work is completed all equipment should be cleared away from the work face and stored away appropriately.

7.2.3.1.13 Hot cutting processes at height

- All attempts should be made to ensure that no hot cutting at height is required, but if it is required the following section along with the hot cutting section above outlines intended work procedures:
  - The cutting operative will obtain a Hot Works Permit and a Working at Height Permit from the Works Contractor site management prior to work commencing ensuring that all controls are in place prior to work. Once work is complete the hot works permit should be signed off and a >1-hour fire watch will take place to ensure that areas are free from any possible signs of a fire starting. Any cutting should be pre-marked before work begins;
  - Oxy/Propane gas cutting equipment fitted with hoses and flashback arrestors should be secured on a trolley and located at ground level. Fire extinguishers should be located in the MEWP and at Ground level with an appropriate nr. of operatives used in the process, one trained operative will conduct the cutting with one in the cage of the MEWP to function as a fire watcher as the cutting is conducted and the other as a firewatcher at Ground level with fire extinguishers to extinguish any possible fires that may occur;
  - Connections of hoses and flashback arrestors should be checked by the cutting operative prior to the ignition of cutting flame. Cutting equipment should be passed to the operative in the cage of the MEWP or the working platform. Once checks have been made and ensuring that all appropriate PPE such as flame-retardant coveralls, leather gauntlets, suitable eye protection and respiratory equipment is being worn the trained operative will access the work area using the MEWP where the cutting process should begin;
  - Hoses should be tethered to the cage of the MEWP during cutting to reduce the weight of the hoses on the operator and prevent falls to the ground. Once the cutting has been conducted the cage should be lowered to the ground; and
  - If MEWPs are to be used outside of a building, then weather conditions should be a deciding factor during the use of MEWPs so as not to work in excessive wind speeds or gusts of 9m per second and should be determined by using a handheld anemometer to measure the speeds. Work will proceed once the conditions have improved.

7.2.3.1.14 Release of stored energy

- Suspended pipe work that sits on the sprung hangers should be cut close to item of plant using one of the cutting methods detailed previously. This will reduce the transfer of movement on the remaining pipe work and hangers through the operation of the machine when removing items of plant and equipment. This cutting operation to separate pipe work should be repeated along specific lengths of the pipe work between the hangers as determined by the working zone; and
- Sections should be marked and strapped before cutting. This will control the gradual release of any stored energy in the pipe spring hanger system.

7.2.3.2 Waste storage (temporary onsite)

All waste materials shall be placed in the designated waste receptacles/areas on site to await collection by a permitted waste contractor for onward recycling/disposal. UN approved drums shall be used for the storage of hazardous materials. Waste storage areas shall be clearly marked within the site compound and maintained to an acceptable standard to avoid the attraction of rodents and vermin. The site should be kept safe and secure to avoid any vandalism and fly tipping. The site shall be maintained to an acceptable standard and free from litter. The waste storage area shall be inspected as part of the routine environmental inspections and any issues communicated to The Works Contractor for investigation and initiation of appropriate actions.

7.2.3.3 Tracking and documentation procedures for off-site waste

All waste should be documented prior to leaving the site. Waste should be weighed by the Works Contractor, either by weighing mechanism on the truck or at the receiving facility. These waste records should be maintained on site by the nominated Contractor's Waste Manager.

All movement of waste and the use of waste contractors should be undertaken in accordance with the Waste Management Acts 1996 - 2011, Waste Management (Collection Permit) Regulations 2007 as amended, and Waste Management (Facility Permit & Registration) Regulations 2007 as amended. This includes the requirement for all waste contractors to have a waste collection permit issued by the NWCPO. The nominated Waste Manager will maintain a copy of all waste collection permits on-site.

If the waste is being transported to another site, a copy of the FCC waste COR/permit or EPA Waste/IED Licence for that site should be provided to the nominated construction waste manager. If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) notification document should be obtained from Fingal County Council (as the relevant authority on behalf of all local authorities in Ireland) and kept on-site along with details of the final destination (COR, permits, licences etc.). A receipt from the final destination of the material should be kept as part of the on-site waste management records.

All information should be entered in a waste management recording system to be maintained on site.

7.2.3.4 Training provisions

A member of the Works Contractor construction team should be appointed as the construction Waste Manager to ensure commitment, operational efficiency and accountability during the construction phase of the project.

7.2.3.4.1 Waste manager training and responsibilities

The nominated waste manager should be given responsibility and authority to select a waste team if required, i.e., members of the site crew that will aid him/her in the organisation, operation and recording of the waste management system implemented on site. The waste manager will have overall responsibility to oversee, record and provide feedback to the project manager on everyday waste management at the site. Authority should be given to the waste manager to delegate responsibility to sub-contractors, where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritise waste prevention and material salvage.

The waste manager will be competent in how to set up and maintain a record keeping system, how to perform an audit and how to establish targets for waste management on-site. The waste manager will also be trained in the best methods for segregation and storage of recyclable materials, have information on the materials that can be reused on site and be knowledgeable in how to implement this R&WMP.

7.2.3.4.2 Site crew training

Training of site crew is the responsibility of the waste manager and, as such, a waste training program should be organised. A basic awareness course should be held for all site crew to outline the R&WMP and to detail the segregation of waste materials at source. This may be incorporated with other site training needs such as general site induction, health and safety awareness and manual handling.

7.2.3.5 Record keeping

Records should be kept for all waste material which leaves the site, either for reuse on another site, recycling or disposal. A recording system should be put in place to record the construction waste arising's on site. A copy of the Waste Collection Permits, CORs, Waste Facility Permits and Waste Licences should be maintained on site at all times. The Waste Manager or delegate will record the following:

- Waste taken for reuse off-site;
- Waste taken for recycling;
- Waste taken for disposal; and
- Reclaimed waste materials brought on-site for reuse, where applicable.

For each movement of waste off-site, a signed docket should be obtained by the waste manager from The Works Contractor, detailing the weight and type of the material and the source and destination of the material. This should be conducted for each material type. This system will also be linked with the delivery records. In this way, the percentage of C&D waste generated for each material can be determined.

The system will allow the comparison of these figures with the targets established for the recovery, reuse and recycling of C&D waste presented earlier and to highlight the successes or failures against these targets.

7.2.3.6 Outline waste audit procedure

7.2.3.6.1 Responsibility for waste audit

The appointed waste manager should be responsible for conducting a waste audit at the site during the C&D phase of the development.

7.2.3.6.2 Review of records and identification of corrective actions

A review of all the records for the waste generated and transported off-site should be undertaken at regular intervals throughout the project. If waste movements are not accounted for, the reasons for this should be established in order to see if and why the record keeping system has not been maintained. The waste records should be compared with the established recovery/reuse/recycling targets for the site. Each material type should be examined, in order to see where the largest percentage waste generation is occurring. The waste management methods for each material type should be reviewed in order to highlight how the targets can be achieved.

Upon completion of the demolition construction phase, a final report should be prepared, summarising the outcomes of waste management processes adopted and the total recycling/reuse/recovery figures for the development.

7.2.3.7 Consultation with relevant bodies

7.2.3.7.1 Local authority

The Works Contractor (all other waste materials) will prior to removal of any waste materials offsite, details of the proposed destination of each waste stream should be provided to FCC as required. FCC may also be consulted, as required, throughout the demolition construction

phase in order to ensure that all available waste reduction, reuse and recycling opportunities are identified and utilised and that compliant waste management practices are conducted.

7.2.3.7.2 Recycling | salvage companies

Companies that specialise in C&D waste management should be contacted to determine their suitability for engagement. Where a waste contractor is engaged, each company should be audited in order to ensure that relevant and up-to-date waste collection permits and facility COR/permits/licences are held. In addition, information regarding individual construction materials should be obtained, including the feasibility of recycling each material, the costs of recycling/reclamation and the means by which the wastes should be collected and transported off-site, and the recycling/reclamation process each material will undergo off site.

7.2.3.8 Waste inspections & auditing

The Works Contractor should conduct inspections of all works waste management practices. The Works Contractor must ensure compliance with this plan during regular and monthly audits. The audit must involve a systematic study of all waste management practices and records, which have been adopted because of the works and recommendations for improvements made as the works progress. An audit report shall be documented following all audit activities to detail current waste management activities as well as areas for improvement. Areas for improvement shall be documented as corrective action and tracked in order to monitor their effectiveness. All non-conformances, areas for improvement and corrective actions shall be documented to facilitate environmental performance monitoring.

Spot inspections should be conducted by the Works Contractor management to ensure compliance with the Waste Collection Permit requirements. Any failing of the waste management practices shall be identified and reported through The Works Contractor Non-Conformance Reporting system and corrective actions shall be raised and closed out in a timely manner as per the Non-Conformance Non-Compliance and internal contractor Corrective Action Procedures.

7.2.3.9 Review and update of the plan

The R&WMP shall be reviewed on at least a quarterly basis, any changes made shall be communicated to the management team. Following an update of the waste management plan or control measures, the relevant documentation shall be updated accordingly, and the plan shall be approved and re-circulated. The revised control measures or waste management updates shall be communicated to all persons working for or on behalf of the Works Contractor in the form of a toolbox talk or communication session.

7.2.4 Temporary work designs (construction stage)

The Works Contractor shall consider all works which may affect the interface with adjoining property owners and members of the public. The design and management of all temporary works shall be conducted in accordance with the Safety, Health and Welfare at work (Construction) Regulations, 2013 - 2021 and relevant Approved Codes of Practice. The Works Contractor shall adopt the process and forms as found in Appendix 2 of the HSA Publication *'Approved Code of Practice - The Safety, Health and Welfare at Work (Construction) Regulations, 2013'*. Envisaged temporary work items include:

- Site hoarding and associated footings;
- Site compound establishment including site signage;
- Temporary service diversions;
- Temporary traffic management (phased arrangement requirements based on works being undertaken);

- Floor back-propping;
- Falsework | formwork;
- Crane bases (mobile | self-erecting equipment only);
- Working access (vertical movements);
- Excavation material removal and stock piling;
- Temporary welfare services (water, foul and power);
- Construction waste disposal;
- Contaminated | hazardous material removal (as required);
- Gantries;
- Temporary stability of permanent works;
- Conservation monitoring and reporting; and
- Restrictions on construction traffic movements, noise, dust, vibration and working hours

7.2.5 Site set up and management

The site must have a well-planned construction compound layout. All temporary facilities and utilities must be designed to:

- Increase productivity and safety;
- Reduce area(s) needed for temporary construction; and
- Maximise utilisation.

7.2.5.1 Site set up

When beginning the site, the Works Contractor's construction activity planners will use their expertise to think through the issues associated with the running of the project, the staged activities that will occur during the project life cycle are assessed and they use their understanding to establish the compound, walkways, roadways, facilities and welfare items and ensure they are clearly established and marked at the earliest stage to clarify to all visitors that this is an organised, efficient, tidy and safe site. Key hazards must be identified and where possible "designed" out of the site, for example keeping pedestrians away from site traffic. The site must be easily understood using clear site maps depicting a layout that delivers the safest workplace possible. The site set up should have the compound at its heart, pedestrian and vehicle routes as the arteries and while set up cannot deal with exclusion zones as they will vary on a day-to-day basis, the set up can deliver a safe "skeleton" site and pop-up work zones and exclusion zones are introduced as appropriate to isolate hazardous activity.

7.2.5.2 Way finding &orientation

On arrival on site a first time visitor, operative or delivery driver must know where they are, where they are going, where they cannot go and where other items are located. The site must be visibly well ordered and well-drawn site plans used to convey the order on site to all visitors in a clear and simple way. It is about quickly understanding the site and clarifying basic behaviour. Where are the safe routes? Where are the key hazards? Where are the welfare items?

7.2.5.3 Vehicle and pedestrian segregation

Pedestrians and vehicles must be able to circulate safely in the workplace; the construction activity must plan segregation and routes well. The temporary nature of a construction site, it is changing layouts and the frequency with which operatives change and are therefore

unfamiliar with their workplace are 3 important factors that add to the risk. The Works Contractor must focus their efforts on planning and delivering a site where drivers and pedestrians are segregated and provided with safe routes to work zones. The objective is that personnel can see at a glance where then can | cannot go.

7.2.6 Hoarding

The overarching consideration in all elements of the site set-up should be to reasonably endeavour to ensure the works can be undertaken in a safe manner for members of the public and the Works Contractor and their staff. Hoarding will either be timber or palisade panels ranging in height from 2.40m. Hoarding may be embellished with artwork and or graphics which would be appropriate for the development. Hoarding should be supplemented in sensitive areas during certain construction activities to mitigate against noise impacts as required. The alignment of the hoarding will remain constant in the round for site works. The hoarding line may be dynamic and subject to amendment to meet the requirements and constraints of the site.

7.2.6.1 Notes on hoarding

- The Works Contractor must daily inspect hoarding lines;
- Inspection records must be retained on site for regular FCC review;
- Hoarding limits site access to controlled access points;
- Hoarding must protect those outside the site from hazards within;
- Hoarding must protect those inside the site from outside activity;
- Branded hoarding must identify ownership of the site area;
- Hoarding locates must identify the site/work-zone for visitors;
- Hoarding must be used to direct behaviour before arrival on site.

7.2.7 Site security

The Works Contractor should be responsible for the security of their site for the duration of their works. The Works Contractor should be required to at a minimum:

- Maintain site hoarding to each boundary with adequate controlled access and egress points;
- Maintain site security staff always;
- Install access security in the form of turnstiles and gates fitted with anti-swing fixtures;
- Reasonably endeavour to ensure restricted access is maintained to the works;
- Operate a site induction process for all site staff;
- CCTV arrangements or alternative to be provided;
- Provision of adequate warning signs to site perimeter and along the streets approaching the site to inform the public of danger & no trespassing onto site;
- Anti-climb measures | protection to be erected around cranes etc.;
- Ensure all staff have current Safe Pass and Construction Skills Cards;

- Monitor and record all deliveries to site and all materials | waste taken off site for disposal to appropriate licensed facility; and
- A fire watch system regime should be implemented with appointed competent fire watch supervisors tasked to inspect the site prior to the end of each working day | shift. All staff should be made fully aware of their individual responsibilities about security and will undertake their work in line with current service guidelines. All staff and operatives should be fully inducted into the security, health and safety and logistic requirements on site.

7.2.7.1 Site security systems

Suitable security measured should be put into place by the Works Contractor including but not limited to Net-watch during the project to cover all elements of the site internally and externally. 24hour security measures will also be put in place when required, particularly at the latter stages of the construction programme where the building equipment and finishing cycles are in place. On possession of the site, the Works Contractor will proceed to ensure the security of the site is achieved by direction of all personnel and deliveries to the site compound. Once established, access into and out of the site compound should be through a turnstile system and or other controlled system.

7.3 Construction stage (new build works)

There is a need to ensure that local residents are protected from undue disturbance during the construction of the project. This CMP seeks to ensure that the Works Contractor is informed of and that they undertake their contract works using good | best practice and thereby reducing their impact on local communities. It is estimated that construction will take approximately 14-16-months to complete. The detailed construction programme is dependent on contractor appointment, market and other considerations. The overall delivery programme has been estimated on the basis that a single contractor should complete the construction of the project. The project can be considered with reference to the following sub-areas which are likely to form the basis of discrete projects or contracts. This project schedule is indicative only – the areas are letter alphabetically to depict the sub-areas only and not as an intended sequence of construction.

7.3.1 Sequence of proposed works

- Hoarding works;
- Hazardous material removal works;
- Isolation of existing services
- Deconstruction; and
- New build extension construction and fitout.

Construction traffic should be generated for the duration of these works, with levels of vehicles movements varying throughout the construction period depending on the construction activities on-going. The project team are seeking to endeavour to protect the right of all affected stakeholders in continuing their daily lives with limited or undue interruption as far as reasonably practicable that may be caused by the construction operations. There are several constraints and requirements which have been carefully considered by the project team throughout the design process. It is envisaged that the entire project construction phase would take place over an assessed timeline to ensure safe construction.

7.3.2 Excavation works

7.3.2.1 Ground conditions

- No site investigation has been conducted to date.

7.3.2.2 Excavations

There is no lower ground floor excavation proposed. Proposed excavations will be limited and relate to foundations only. There should be little or no stockpiling of excavated soils. In the event that short term (24 – 48 hour) storage is required, the material should be retained in the designated stockpile storage area. All excavated soils being disposed of should be recorded using a material dispatch log detailing the date of transport, vehicle registration, quantity, type of material and the destination.

7.3.2.3 Backfill | imported soils

- Backfill | imported soils not envisaged

7.3.3 Hard demolition (existing onsite structures)

7.3.3.1 Demolition key notes

- Demolition should be conducted very carefully under conservation supervision as instructed.
- Hard demolition of selected roof slab areas. Works include the safe removal of all structural members, external façades and roof finishes. The Works Contractor shall:
  - Remove all debris and rubbish from the site area to licensed tips;
  - Records shall be forwarded to the Client Project Manager for information on the quantities disposed;
  - Ensure, following the demolition of the roof (or part thereof), the site shall be left in a tidy and safe condition in agreement with the Client Project Manager;
  - Ensure measures shall be taken to ensure that the existing services in the vicinity of the roof are not affected by the demolition works; and
  - Seal by means of grouting all drainage within the curtilage of the site not to be removed during demolition of the buildings. Sealing shall be only up to the last manhole within the site.

7.3.3.2 Exclusion zones

Safe working spaces and exclusion zones should be in place within and around the site. The extent of the exclusion zone should be varied according to the type of demolition activity and the rate of progress (refer to BS6187 for a detailed description). Exclusion zones should be part of an overall managed health and safety regime and should be included in all demolition building specific RAMS. Exclusion zones should be designed with a number of constituents in place, i.e., the structures height and construction, the surrounding topography and environment, the predicted debris area and the potential for 'fly' material etc. When setting up for work it is important to consider the predicted debris area, particularly when applying a sloping face on the building being taken down. Rubble running freely down a slope off the face of the building is likely to encroach within the footprint of the machine if the machine is positioned too close to the structure. An exclusion zone around the intended buildings to be demolished and the demolition rig should be devised inclusive of the three main elements required to create a demolition exclusion zone as outlined within BS:6187.

7.3.3.3 Plant equipment use

All machine operators will have access to the site-specific RAMS, condition surveys and any other relevant information necessary for them to operate the machine in a safe and efficient manner. Operators are required to operate all controls in a smooth, steady manner and avoid any sharp or sudden movements that might affect the safe operation and stability of the machine. The machine should be operated in line with the tracks and over the front idlers

(drive sprockets to the rear) for maximum stability, allowing the machine to be reversed quickly and safely in the event that falling debris may strike the machine.

7.3.4 New residential construction

- Excavation of site and construction of the foundation level and any deemed necessary permanent retaining wall structures;
- Construction of rising elements to ground floor and construction of ground floor slab;
- Construction of external masonry walls;
- Construction of 1st floors (timber make up envisaged);
- Stairs will follow floor construction sequence;
- Roof frame construction and associated roof finishes;
- Note - External and roof trades will be supported by teleporters or mobile | self-erecting cranes for lifting of materials with propriety working platforms providing fall protection to operatives; and
- Internal services and finishes are normally commenced in earnest when the unit is weathered.

7.3.5 Craneage

It is envisaged that the site will require the limited use of either mobile or self-erecting cranes, but predominantly via teleporter to provide the necessary site lifting coverage. Cranes may only be required for the moving of building materials | plant around the site if justified by risk assessment.

7.3.6 Storage of materials on site

Any materials stored on site must be done so in a safe manner. Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater. All necessary controls should be agreed with FCC Pollution Section pre commencement of project works.

7.3.6.1 Bund tank needs

Oil is the commonest water pollutant. These guidelines are intended to help reduce pollution caused by inadequate storage of oil in fixed tank installations.

- Location - Safety, security, access and maintenance needs must be considered when storing oil. Tanks must be positioned, or other steps taken, to minimise the risk of damage by impact. Oil must not be stored in significant risk locations (i.e., within 10m metres of a watercourse or 50.00m of a borehole);
- General requirements - Oil must be stored in a tank of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in ordinary use. It is recommended that tanks with a design life (with proper maintenance) of 20 years are used;
- Tank specification - Storage tanks must be type tested to a recognised standard and produced to that standard under a quality assurance system complying with BS EN ISO 9001:2000 or BS EN 9002:1994. Steel tanks must comply with BS 799: Part 5 and must be protected against corrosion. Steel tank drain valves must be used to prevent frost damage. There is no British Standard for prefabricated steel tank systems. However, the Oil Firing Technical Association for the Petroleum Industry (OFTEC) have developed a standard for steel tanks, OFS T200 which does include these;

- Polyethylene tanks and tank systems must comply with OFS T100. Compliance with standards for construction and manufacture does not guarantee compliance with storage regulations;
- Tank installation and marking - It is recommended that tanks are installed by technicians registered with a professional scheme, such as that operated by OFTEC. The tank must be marked with the product type and tank capacity; and
- Tank decommissioning - Before a tank is taken out of use or removed, it must be fully drained. This work must be undertaken by suitably qualified technicians and hot work must never be conducted until the tank has been degassed and the appropriate certificate issued.

7.3.6.2 Secondary containment

Secondary containment must prevent oil escaping to the environment in the event of leakage from the tank or ancillary equipment. All tanks and their ancillary equipment must be situated within an oil-tight secondary containment system such as a bund. The potential escape of oil beyond the bund area by jetting must be considered. The risk of this can be minimised by:

- keeping the primary container as low as possible;
- increasing the height of the bund wall; and
- building the bund as far away from the tank as possible

For steel tanks in open bunds, a minimum distance of 750mm between the tank and the bund wall and 600mm between the tank and the base is recommended to allow access for external inspection.

7.3.7 Removal of materials from site

The removal of materials from the site will primarily be undertaken during enabling works and soft strip out construction stages of the project. The removal or addition of materials to facilitate fit out of the new floors could be the most intensive periods for material movement off site. Each of these elements of work will need to be managed effectively to reasonably endeavour to ensure that is no queuing of trucks on the local public roadway.

7.3.8 Water supply

The Works Contractor will require a water source for the duration of the works. Water should be required for:

- Contractor welfare facilities;
- Vehicle wheel wash | automated spray booths (use of recycled water);
- Dust suppression;
- Curing of concrete in warm weather; and
- Cleaning of formwork etc.

The Works Contractor must apply to Irish Water for a temporary connection for water supply and/or wastewater.

7.4 Plant and equipment use

Consideration has been given to the types of plant and equipment that are likely to be used during construction works. Typical types of plant and equipment associated with each key construction activity are set out in the table below:

7.4.1 Indicative plant used during construction

Plant and Equipment	Enabling Works	Site Clearance	Earthworks and Sub-structure	Super-structure	Roofing and Cladding	Services and Finishes
Small mobile or self-erecting crane				✓	✓	✓
Passenger /goods hoists						
Excavator/ Breaker		✓	✓			
Cutters, drills and small tools		✓	✓	✓	✓	✓
Floodlights		✓	✓	✓		
Forklift truck/ Pallet truck		✓	✓	✓	✓	✓
Hydraulic benders & cutters		✓		✓		✓
Lorries and vans		✓	✓	✓	✓	✓
Mobile lorry mounted concrete pump			✓	✓		
Poker vibrator			✓	✓		
Ready mixed concrete lorry			✓	✓		

Plant and Equipment	Enabling Works	Site Clearance	Earthworks and Sub-structure	Super-structure	Roofing and Cladding	Services and Finishes
Concrete splitters/ saws		✓		✓		
Scaffolding		✓	✓	✓	✓	
Tipper lorries		✓	✓			
Flatbed articulated vehicle		✓	✓	✓	✓	✓
Large rigid lorries		✓	✓	✓	✓	✓
Raking props		✓				

8 Community liaison & public relations

Romeville Developments Limited will establish a strategy so that particular issues | complaints raised by persons may be quickly identified and responded to.

8.1 Community liaison plan

Given the nature of the proposed project and that there may be at any given stage, multiple supply chain contractors on site, there will is a need to have an effective management of public relations and complaint handling to ensure good relations and a mutual trust between all key stakeholders during construction. These key stakeholders should be mainly but not be limited to the residents and FCC, but will most likely extend to the wider community as development progresses including but not limited to An Garda Síochána, NTA, TII etc. The CLP should be reviewed every six months. Updates should consider:

- Changes in the design and construction programme;
- Changes in stakeholder and community needs; and
- Changes in contractor activities and stakeholder and community information requirements.

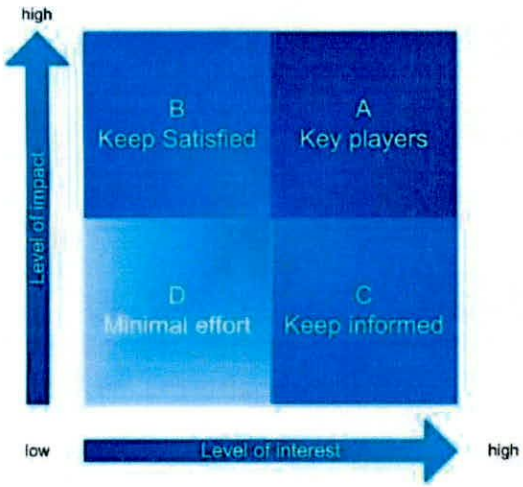
8.1.1 Guiding community liaison principles

The management of community liaison issues for the project positions the local community at the centre of the community liaison effort. The approach taken is based on extensive mapping of stakeholder impacts and interests in the works and broader project. Community liaison activities outlined in this plan sit in the 'inform' and 'consult' part of this spectrum. A critical

success factor for the effective management of community liaison issues during the project should be the alignment of the community liaison approach and responses with broader project approach. From the stakeholders' perspective this will create a seamless response to all contacts. It also ensures a coordinated risk management approach.

8.1.2 Stakeholder mapping and analysis

Stakeholder mapping and analysis should be undertaken to identify those who may potentially experience the greatest impacts (both positive and negative) and those with an interest in the works. Stakeholders will continue to be identified and categorised according to their levels of impact and interest, using an industry standard stakeholder analysis tool below:



The stakeholder analysis tool categorises stakeholders in the following way:

- **Category A** – Stakeholders with a high level of impact (positive and negative) and interest – residents (within a 200m radius of the construction zones), TII, FCC, IAA other agencies including utility providers, transport agencies and An Garda Síochána;
- **Category B** – Stakeholders with a high level of impact (positive and negative) but a lower level of interest in the project – including nearby businesses beyond a 200m radius and within a 500m radius
- **Category C** – Stakeholders who have considerable interest in the project but a relatively low level of impact; and
- **Category D** – Stakeholders with comparatively little impact and little interest in the development.

For the purposes of the CLP, key stakeholders to be addressed are Category A and B stakeholders. This strategy subject to re-evaluation through periodic review of the CLP or in response to potential response from a wider area.

8.1.3 Community Liaison Officer – Contractor (CLO)

The CLO functions will include but not be limited to the following:

- Main point of contact for Romeville Developments Limited in respect of their site, works on-going and upcoming;
- Attendance at weekly meetings (or nominate a representative sufficiently briefed on relevant matters if unable to attend);
- Main point of contact for public and key stakeholders in relation to site specific issues;
- Updating Romeville Developments Limited in relation to any interface with key stakeholders on any site-specific issues/queries; and
- Manage a log of complaints/issues (if any) that arise on their site including actions to resolve and inform Romeville Developments Limited as part of an agreed Complaints Procedure.

8.1.4 Issues related to works, temporary works and construction activities

The CLO will monitor key issues while working closely with the construction and environment teams to understand and assess issues as they arise throughout the project.

Project works	Temporary works	Construction activities
▪ Traffic changes ▪ Air quality ▪ Waste ▪ Noise and vibration ▪ Soils and groundwater ▪ Car parking, transport and access ▪ Local business impacts ▪ Local resident impact ▪ Human health ▪ Hazards and risks	▪ Traffic changes ▪ Air quality ▪ Waste ▪ Noise and vibration ▪ Soils and groundwater ▪ Car parking, transport and access ▪ Local business impacts ▪ Local resident impact ▪ Human health ▪ Hazards and risks	▪ Team members and subconsultants to flag issues with the CLO ▪ Contractor personnel and subcontractors to behave appropriately at all times ▪ Maintain terms of agreement and protocol

8.1.5 Communication procedure

The objective of communication procedures should be to:

- Maintain effective working relationships and mutual trust between key stakeholders during construction;
- Promote the free flow of timely and appropriate information in all directions between key stakeholders in order to try to anticipate and resolve any potential issues before they arise;
- Evaluate the results of monitoring activities on a periodic basis;
- Oversee a Community Complaints Procedure, ensuring appropriate responses from the Works Contractor are forthcoming;
- Identify and respond to matters raised by local residents or which may arise as a result of the monitoring;

- Construction staff should be encouraged to remove all Personal Protective Equipment (PPE) and use wash down facilities before leaving the site;
- Romeville Developments Limited recognise the importance of the community liaison role in ensuring the smooth running of activities and in relation to residents and public services. Important key issues in ensuring good relations are:
  - Correct points of contact, information and liaison;
  - Responsiveness to contacts and information;
  - Good housekeeping in all aspects of the operations; and
  - Keeping people informed of site operations, through regular meetings, mail drops & newsletters will help create good relationships and co-operative atmosphere.
- The Works Contractor is required to ensure that all agents, supply chain contractors, suppliers under their control etc. act in a manner to minimise disruption to the surrounding locality;
- The Works Contractor should be responsible for establishing relationships with relevant parties, and communicating with each as appropriate throughout the pre-construction, construction and operation phases of the project. The CLO will function as a conduit between the main contracting parties they represent and the overall project ensuring that effective communication takes place. The Works Contractor Public Relations Coordinator who will support the CLO to:
  - Ensure all communications are relayed back to FCC for insertion in their webpage as part of the Communications Strategy to ensure FCC are aware ahead of any potential communications from local residents and property owners.
  - Populate and distribute a local development newsletter;
  - Point of immediate contact for neighbours and stakeholders;
  - Monthly briefing with neighbours on progress, monitoring reports (noise | vibration) and any corrective issues;
  - Liaison with FCC and emergency services as appropriate;
  - Liaison with An Garda Síochána, particularly in relation to traffic movements and permits; and
  - Preparation of reports for each site progress meeting on neighbourhood issues.
- Efficient signage, maintenance and cleanliness of services and temporary facilities should be given high priorities within the overall scheme of the liaison strategies for the project. Due to the nature of construction works it is essential to operate Good Neighbour Policies. Key aspects of a Good Neighbour Policy include:
  - Early implementation;
  - Good client, staff and neighbourhood liaison;
  - Reduction of nuisance factors;
  - Clear access for neighbouring premises;
  - Clear and concise information; and
  - Designated liaison officer.

8.1.6 Monitoring and evaluation construction activities

In keeping with the requirements of the CLP, the DCLO will establish continuous evaluation, monitoring and reporting systems. The purpose of monitoring and evaluation is to verify and validate the successful delivery of stakeholder and community liaison activities.

The figure below provides an overview of the approach to the monitoring and evaluation process. It seeks to demonstrate that evaluation is a process, not a product, and is integrated into all stages of programming the community liaison activities (designing, monitoring, and reflecting on success).

The information generated can be used to adaptively manage the consultation methodology (formative), and to communicate | report, discuss, theorise and redesign.

The monitoring and evaluation process established will capture and report on qualitative and quantitative evaluation measures, for example:

- Frequency and types of consultation and profile of those involved;
- Positive and negative feedback (logged through the CLO);
- Take-up of consultation and engagement process, to assess suitability of the activities; and
- Quality, accuracy and legibility of communications material presented.

8.1.6.1 Sample indicators for monitoring and evaluation activities

Objective	Target	Strategy	Indicator	Target
Timely response to all stakeholder enquiries and complaints	As per the requirements of planning	Adhere to the requirements of planning	Number (and percentage) of responses provided within time limit	100%
Documentation of responses and actions	As per the requirements of consultation	Adhere to the requirements planning	All responses and actions documented	100%

Quality – information, experience, and satisfaction	▪ All interested stakeholders have opportunities to participate in consultation ▪ All interested stakeholders have opportunities to lodge feedback and complaints ▪ Stakeholders advised how their feedback would be used	▪ Adherence to CLP ▪ Provision of feedback to stakeholders during liaison activities	▪ Important levels of participation across identified stakeholder groups ▪ Important levels of stakeholder satisfaction	90%
Appropriateness – for stakeholder, needs, level of interest | impact and expectations	▪ Feedback and complaints were considered and informed construction activities ▪ Responses addressed issues and concerns raised ▪ Liaison activities met stakeholder requirements and expectations	▪ Adherence to CLP ▪ Monitoring and analysis of issues and responses in line with planning ▪ Provision of feedback to stakeholders during consultation activities	▪ Alignment of issues and responses ▪ Important levels of stakeholder satisfaction with response mechanisms	90%

9 Contractor compliance requirements

9.1 Planning compliances*

*(*Applicable to those design elements where a contractor bear design responsibility i.e., specialist contractors | suppliers)* - The Works Contractor must in their planning and execution of the works take ownership for the requirements set out in the Grant of Planning Permission Conditions are complied with completely.

9.2 Statutory compliances

As a minimum, all aspects of works and project facilities must comply with good industry practice, statutory instruments and all necessary consents including but not limited to the following:

- The Safety, Health and Welfare at Work Act 2005;
- IAA Order S.I. 215 of 2005 (crane use);
- The Safety, Health and Welfare at Work (Commencement) Order 2012;
- The Factories Act 1955;

- The Safety in Industry Act 1980;
- The Safety, Health and Welfare at Work (General Applications) Regulations, 2007-2022;
- The Safety, Health and Welfare of Work (Construction) Regulations, 2013-2021;
- The Construction Products Regulation (CPR), 2013;
- The Building Control (Amendment) Regulations, 2014-2017;
- Any recommendation | Code of Practice etc. made by the Health and Safety Authority (HSA) or equivalent HSE publication;
- Archaeology & Development: Guidelines for Good Practice for Developers (December 2000);
- BS 5228: Noise and Vibration Control on Construction and Open Sites: 2009 + A1 2014 (BS 5228-1);
- Law and Good Industry Practice on Disability including those of the National Disability Authority;
- Fire Services Act, 1981;
- Good Industry Practice in respect of Fire;
- Requirements of Utility Providers, and the HSA;
- Relevant Irish Standards ("Irish Standards"), British Standards ("British Standards"), Codes of Practice ("Codes of Practice"), EU Directives ("Directives") or equivalent European Standards ("European Standards");
- Building Research Establishment Digest Recommendations;
- Local Byelaws and Regulations;
- The Building Control Acts 1990 and 2007 including all relevant subordinate legislation made under these Acts (and any amendment or re-enactment of such Acts (the "Building Regulations"));
- Regulations and requirements of all relevant authorities;
- All equipment for use in a potentially explosive atmosphere must be appropriate for the environment and must comply with the EU 'Atex' Directive;
- All BSRIA Publications;
- All HVCA Publications;
- ETCI - National Rules for Electrical installations;
- CIBSE Publications- Guides, Codes, Technical Memoranda, Application Guides, Lighting Guides, etc.;
- ASHRAE guidance for specific Mechanical Systems and Components (where more comprehensive than CIBSE); and
- Working Time Directive, 2003.

9.3 Construction stage requirements

9.3.1 Construction stage document requirements

The Works Contractor must provide prior to commencement of any works on the project the following information to Romeville Developments Limited for written acknowledgment:

- The Contractor prepared CMP must be submitted for the site to the Planning Authority and FCC for agreement in writing, prior to commencement. In this regard the CMP shall include a site-specific site Construction Traffic Management and Community Liaison Plan. Plans shall provide details of intended construction practice for the project are. Specific information requirements may include:
  - location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
  - location of areas for construction site offices and staff facilities;
  - location of any settlement tank with associated discharge licence (if required);
  - details of site security fencing and hoardings;
  - details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;
  - measures to obviate queuing of construction traffic on the adjoining road network;
  - measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network, should be managed through a combination of a road sweeper, wheel wash, at the site entrance and good waste management practice employment by the Works Contractor;
  - alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;
  - provision of parking for existing properties during the construction period;
  - details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
  - containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;
  - off-site disposal of construction | demolition waste and details of how it is proposed to manage excavated soil; and
  - means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains. A record of daily checks that the works are being undertaken in accordance with the CMP shall be kept for inspection by the Planning Authority.
- Copy of AF2 notification to the Health and Safety Authority for the site;
- Site specific Construction Stage Health and Safety Plan for the site – the Works Contractor as PSCS must produce and submit in soft copy in advance of the works commencing a construction-stage health and safety plan for acknowledgement by The Client. Each plan should be assessed on an ongoing basis during construction to account for the dynamic evolution of the project and adherence to agreed temporary work measures (demolition, groundworks, service diversions, traffic management etc.) and site rules;
- Site specific contaminated material | hazardous material strategies (as required);
- Approved commencement documentation as required by the Building Control (Amendment) Regulations, 2014 and | or similar statutory or regulatory documentation;
- Site specific Safety Statement;

- Names of personnel including shadow and support staff responsible for discharging the role of PSCS, site safety, health, welfare and first aid personnel;
- Written confirmation from Romeville Developments Limited that the Works Contractor proposed site establishment complies with project requirements. If non-compliances are subsequently identified corrective actions must be remedied at the cost of the Works Contractor;
- Evidence of the required insurances being in place;
- Confirmation (in advance of commencement) to confirm that previous works on site have been assessed to ensure compliance with as-built information;
- Details of the Works Contractor contact details for subsequent payments;
- Proposed samples for approval of the design team and Romeville Developments Limited;
- Permit to work submittals such as method statements, risk assessments and applications for works outside the project site redline boundary; and
- Complete Client Safety File.

9.3.2 Construction stage health and safety plan

The plan document must be project-specific and must incorporate the requirements of the strategies within this D-CMP. The Works Contractor must ensure their plan enables the location of its entire compound within its site as per the demised area and other areas outside the red line boundary where e.g., MEP, ICT etc. should be required to operate at defined interface points. Each plan, at a minimum must include at least the following sections:

- Project directory and communications protocols proposed to be used with Romeville Developments Limited in response to the necessary Communication Strategy;
- Site establishment plan including any proposed phasing / staging of site compound areas – identifying the location of, inter alia, the building footprint, site offices, welfare facilities for operatives and staff, materials storage, component assembly area, waste skips or similar, craneage / hoists / scaffolding, generator / pumps etc. The layout of same must be agreed in advance with Romeville Developments Limited with focus on the proposed location of potential noisy / dust creating equipment such as pumps & generators, and potential impacts on the progress or uses of nearby residential properties;
- Contract programme as previously agreed with Romeville Developments Limited;
- Risk Management Strategy – listing of specific site risks, the Works Contractor must present a weighted risk matrix based on their evaluation of risks particularised to its specific works and the site;
- Deliveries Strategy - including swept path analysis (projection of HGV vehicle movements linked to the contract programme for the duration of the works), proposals for just-in-time deliveries, and its proposals to avoid impacts on traffic passing around the perimeter and through the site;
- Storage Strategy – developing the deliveries strategy to minimise storage requirements, but also addressing protecting and securing the components;
- Waste Management Strategy – addressing the requirements to implement, reduce, re-use recycle strategy and identifying the proposed location of skips etc. The strategy must address proposed mechanisms to avoid rodents inhabiting the site;
- Fire & Emergency Plan – planning and execution of the works in a manner which avoids impact on operational continuity of works and must particularise these proposals to the

works in question and any risks identified in identifying and managing the respective project's risks;

- Storm-water Management Plan – designing and implementing agreed construction site storm-water runoff control, post construction site storm-water management, pollution prevention | good housekeeping etc.;
- Temporary Works Register - this register must be submitted at pre-start by the Works Contractor to the project Manager and PSDP. The register is to be updated during the construction period in coordination with the project Manager and PSDP;
- Temporary Connections Plan – for the avoidance of doubt, the Works Contractor shall not be permitted to source temporary connections for utilities or draw power or water from the permanent infrastructure supplies unless otherwise agreed. Arrangements must instead be made for generators and similar temporary installations;
- Temporary Traffic Management Plan and swept path analysis – the Works Contractor must conduct a swept path analysis for the project site using design plans and take account of the expected vehicles that will enter and exit the site during the construction project. The Works Contractor must demonstrate how vehicles can operate safely within the traffic management proposal of the project site and wider permanent roadways;
- Noise, Dust & Vibration Mitigation Plan - attention is to be given to the impact on neighbours, immunosuppressed neighbours & members of the public, LRT LUAS structures and occupants of adjacent buildings; and
- Any other plan | matter deemed relevant by the Works Contractor to ensure works are safe and without risk.

9.3.3 Client Safety File

The Client Safety File is information collated by the PSDP under Regulation 13(a) & (b) of the Safety, Health and Welfare at Work (Construction) Regulations, 2013 - 2021. The Safety File is a record of information for the end user of the development which focuses on safety and health in relation to the day-to-day usage, maintenance, alteration and demolition of each structure within the project. The information contained within the file shall alert those responsible for the design of new structures and services of any significant risks to safety and health that shall be addressed during detailed design development. The Safety File document must be held in PDF format while also being capable of handling BIM (Level 2) documentation, Revit, AutoCAD, MS Word, Excel files etc. To make this task achievable co-operation between and co-ordination of all the relevant parties is of essential, right from the outset of the project. The design & build contractor is responsible under Regulation 21 for the co-ordination of arrangements among contractors to ensure the provision of relevant information, in writing, thus enabling the completion of the safety file. The BCaR information needs list is separate to the Client Safety File. The format and quantum for the file should be agreed | provided during pre-contract stage with the preferred contractor.

9.3.4 Site utilities

Existing services should be identified from the utility bodies, current service drawing records and by use of a full-service sweep of the buildings and surrounds. These should be retained on site for reference. As appropriate, applications should be submitted for power, drainage and water connections through the relevant FCC departments. The Works Contractor should be required to review and advise on:

- Electricity: - completed application form for temporary supplies and informing the Power Supply Company of the required power on dates and the dates at which the new supply

connection is required. An application should be made to the ESB and relevant power networks for the temporary supplies required for the construction works;

- Water: - applications for final water connection and | or metering. An application should be made to Irish Water for a new water supply required for a temporary construction supply. An application should be submitted for the final connection. This should be a water supply up to the site boundary and terminate with an isolator. From the isolator, the mechanical contractor will run a new pipe and enter the plant room where a double valve and mains isolator should be installed. All underground pipework is to be disinfected in accordance with Water Supply (water fittings) Regulations 199 (SI 1999, 1148);
- Wastewater: - reviewing means for disposal of wastewater. Connection to the Local Authority sewer for both temporary supply and for permanent supply should be lodged with FCC;
- Telecommunications: - advising the Works Contractor's head office on the number of telephone lines required for broadband, phones, faxes and computers. The Works Contractor will then apply for the lines and advise on the installation date; and
- Gas Supply: - completing the various form for the new Gas Supply main for the development from the existing site boundary location and connection to the mechanical systems in a timely manner to allow for testing, commissioning and to aid drying out of the building.

10 Construction phase environmental impacts and alleviation measures (refer also to Sections 7.1.3 to 7.1.7 of the Ecological Impact Assessment Report)

10.1 Introduction

The project will generate emissions during the construction phase these include emissions to air (dust, noise, and vibration), construction traffic, surface water run-off or infiltration to groundwater. In addition, leaks or spills from fuel storage areas and construction plant and equipment will have the potential to impact on soil, surface water and groundwater quality. The Works Contractor's CEMP must include emission limits for the various environmental media that require monitoring.

The Applicant will establish a Community Liaison Officer (CLO) so that particular issues or complaints in relation to construction related impacts including environmental issues may be quickly identified and addressed. Issues in relation to environmental nuisance should be addressed by an Environmental Monitoring Officer who will brief the CLO who will then update the key stakeholders on the actions being taken to alleviate environmental complaints and or breeches of environmental monitoring limits.

10.2 Environmental Monitoring Officer

As required, Romeville Developments Limited will appoint an Environmental Monitoring Officer (EMO). The EMO will review the Works Contractor's CEMP to ensure that it meets the requirements of this Plan. The EMO will also review monitoring reports to be prepared by the Works Contractor based on the requirements specified in the Grant of Planning to ensure that the construction does not impact on the environment and surrounding property occupants and the general public. The EMO will function as liaison between the Works Contractor, FCC and the Community Liaison Office and should be the single point of contact to ensure compliance with the implementation of the Works Contractor's CEMP and compliance with emission limits for environmental media where these are specified. The EMO will review monitoring reports prepared by the Works Contractor and provide summary of reports assessing compliance with the limits for surface water quality, noise, vibration, and dust specified in the CEMP. The EMO will also report on any incidents such as spills or leaks and how such incidents were dealt with

to alleviate environmental impacts. These summary reports should be made available for review by FCC and interested parties. In the event of an exceedance of Trigger Limit the Works Contractor should be obligated to implement the following measures:

- Repeat measurement to confirm findings;
- Identify source(s) of impact;
- Inform EMO;
- Check monitoring data, all plant, equipment, and relevant Contractor's working methods; and
- Discuss alleviation measures with EMO;

The Works Contractor will be required to prepare a Construction Environmental Management Plan (CEMP).

10.3 Noise

An environmental noise study should be conducted at the site in order to quantify the existing noise environment. The survey should be conducted in general accordance with ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.

Noise measurement locations should be selected to represent the noise environment at noise sensitive location surrounding the proposed project. The locations should be chosen to capture how noise levels in the area around the site vary, from the relatively high noise levels along adjoining residential properties to the relatively quiet parallel but opposite site boundary.

10.3.1 Construction noise

The construction phase will involve deconstruction and the construction of new residential homes. A variety of items of mobile plant should be in use, such as lifting equipment, compressors, generators, and demolition equipment. There will be vehicular movements to and from the site that will make use of the existing roads and site access points. The Works Contractor should be required to employ a number of measures to minimise the potential noise and vibration disturbance in the surrounding area. The Works Contractor will ensure compliance with the construction noise and vibration limits recommended in the Transport Infrastructure Ireland (TII) document *'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'* 2014. BS 5228 (2009+A1:2014) and the *Code of Practice for noise and vibration control on construction and open sites – Noise and vibration*.

10.4 Vibration

The main potential source of vibration during the construction programme is associated with demolition and new civics works. Where e.g., concrete breaking is required or during certain demolition activities, there is also potential for vibration to be generated through the ground. It is possible that vibration levels should be detectable within adjacent buildings for short periods of time, depending on the level of breaking activity used. Notwithstanding the above, any construction activities undertaken on the site should be required to operate below the recommended vibration criteria set out.

10.5 Dust

Dust emissions are likely to arise from the following activities during the construction works:

- Demolition;
- Excavation works;
- Concrete works;

- Handling of construction materials;
- Construction traffic movements.
- Control of vehicle speeds and speed restrictions; and
- Sweeping of hard surface roads.

The following measures should be implemented where construction works occur in proximity to sensitive receptors:

- Provision of hoarding of 2.40m high at a minimum;
- Covering of stockpiles and locating stockpiles away from sensitive receptors; and
- Locating plant away from sensitive receptors.

The following avoidance, remedial or reductive measures should be implemented as part of the dust minimisation plan:

- Vehicle speed limits should be enforced at the construction site. Site traffic is restricted to 10 km/hr. This will help to minimise the occurrence of dust re-suspension;
- Vehicles delivering or removing materials on site should be loaded carefully to reduce the risk of spillage from the vehicles onto nearby roads;
- Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, should be controlled by the Works Contractor through regular servicing of machinery;
- Surrounding public roads used by trucks to access to and egress from the site should be inspected regularly and cleaned, using an approved mechanical road sweeper, when required. Roads should be cleaned subject to local authority requirements. Site roads should be cleaned on a daily basis, or more regularly, as required;
- During very dry periods when dust generation is or during windy periods, construction areas and vehicles delivering material with dust forming potential will also be sprayed with water, as appropriate. Wheel wash facilities should be provided for all other construction activities for use by all vehicles exiting the site prior to them entering onto the surrounding public roads. These facilities will contain rumble grids to remove excess mud and other waste from wheels, ensuring that these potential dust producing materials are not released onto surrounding public roads. The wheel wash facilities should be self-contained, ensuring that wastewater discharges to nearby water bodies are not necessary. The facilities should be located away from sensitive receptors, where possible;
- Areas where materials should be managed and stockpiled should be positioned away from access roads. These areas will also be designed to minimise their exposure to wind – all | any stockpiles shall be kept to the minimum practicable height with gentle slopes;
- There shall be no long-term stockpiling on site and storage time should be minimised;
- Material drop heights from plant to plant or from plant to stockpile should be minimised;
- Daily inspections should be undertaken to monitor tidiness;
- A regular programme of site tidying should be established to ensure a safe and orderly site;
- If necessary, scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind;
- Food waste should be strictly controlled on all parts of the site;

- Loaded lorries, delivery vehicles and all trucks for the movement of materials on and off site should be covered. Skips will also be covered. The Works Contractor will ensure that delivery agents are compliant in this regard;
- Surrounding roads used by trucks to access to and egress from the site should be inspected regularly and cleaned, using an approved mechanical road sweeper, when required. Roads should be cleaned subject to local authority requirements. Site roads should be cleaned on a daily basis, or more regularly, as required;
- Road edges and footpaths should be cleaned using a hand broom with controlled damping; and
- In the event of any fugitive solid waste escaping the site, it should be collected immediately and removed to storage on site, and subsequently disposed of in the normal manner.

The degree of implementation for some of the above alleviation measures (water spraying etc.) should be determined by rainfall levels on site. The use of excessive levels of water to suppress dust should be minimised when not required. This will help limit potential drainage related impacts on site.

10.5.1 Dust monitoring

Dust deposition monitoring should be reviewed at the nearest sensitive receptors to the proposed project for the duration of the construction works to ensure the effectiveness of the measures outlined above. Bergerhoff Dust Deposit Gauges should be positioned at each sensitive receptor. Results should be compared with TA Luft guidelines. A qualified air quality expert set the precise location of the dust gauges to ensure that dust gauge locations are positioned in order to best determine potential dust deposition in the vicinity of site boundaries and existing buildings.

Dust monitoring is typically completed monthly with the results reported to the EMO. Quarterly Monitoring reports detailing all measurement results shall be prepared and submitted to the EMO for review. Reports should be maintained on site for inspection if/when required by FCC. Where exceedance of dust emission limits occurs on a monthly basis or where complaints are received an assessment should be undertaken to identify the source(s). This will include an assessment of the construction works taking place, potential off-site sources, and meteorological conditions. Should the construction works taking place be identified as the primary cause of the exceedance, the Works Contractor will ensure that the alleviation measures listed above are improved upon. Should exceedances of the guideline limit value continue to occur following these improvements, the Works Contractor will provide alternative alleviation measures and/or will modify the construction works taking place.

10.6 Carbon emissions

The following alleviation measures should be implemented to minimise CO_2 emissions:

- Materials required for the construction works should be sourced locally where possible. Rock crushing should be undertaken on site where possible, to reduce the requirement to import crushed stone to site;
- A detailed Construction Traffic Management Plan should be implemented in full. This plan will seek to minimise congestion and encourage car sharing and the use of public transport by site personnel;
- Materials should be managed efficiently on site to minimise the waiting time for loading and unloading, thereby reducing potential emissions;
- Engines should be turned off when machinery is not in use;
- The regular maintenance of plant and equipment should be conducted;

- The Works Contractor should be required to implement an Energy Management System for the duration of the works. This will include the following at a minimum:
  - Use of thermostatic controls on all heating systems in site buildings;
  - The use of insulated temporary building structures;
  - The use of low energy equipment and power saving functions on all computer systems;
  - The use of low flow taps fittings and showers; and
  - The use of solar | thermal power to heat water for the on-site welfare facilities including sinks and showers.

10.7 Land, soils, and groundwater (refer also to draft CEMP)

The employment of the following good construction management practices will minimise the risk of pollution of soil and groundwater:

- The Works Contractor will not undertake any works within sensitive catchment areas or protection zones. These areas should be clearly fenced off to avoid encroachment by construction plant and equipment;
- Excavated material shall undergo earthworks testing in accordance with the TII Specification for Road Works (SRW) to establish its suitability for reuse as engineering fill;
- Appropriate safe slope angles and a suitable drainage system should be used for all excavated slopes, while such slopes will also be monitored by the Works Contractor during the construction works to ensure their stability;
- Good housekeeping (daily site clean-ups, use of disposal bins, etc.) on site during construction, and the proper use, storage and disposal of substances and their containers will prevent soil contamination;
- Groundwater pollution should be minimised by the implementation of good construction practices by the Works Contractor. Such practices will include adequate bunding for all potentially contaminating liquids including fuel and lubricating oils and chemicals, wheel wash and dust suppression on site roads, and regular plant maintenance to ensure ecologically protected sites and sensitive receptors;
- Materials such as, fuels, chemicals, lubricants, and hydraulic fluids should be carefully managed to avoid spillages. These materials should be stored within double sealed tanks with bunds to prevent any seepage of same into the groundwater. A fuel filling point should be set-up on site with all plant to be brought to this point for filling. Potential pollutants will also be secured against vandalism and should be clearly marked. Any spillages should be immediately contained, and contaminated soil removed from the site and disposed of in a licensed waste facility; and
- Local dewatering and collection of groundwater during construction may require disposal. Disposal of groundwater during construction should be to the surface water sewer system following suitable pollution control and attenuation measures. The precise measures to be used should be agreed in advance with the EMO and FCC.

10.7.1 Groundwater monitoring

A monitoring programme should be undertaken as required as part of the environmental site assessment established that the groundwater beneath the site was uncontaminated. The water from any excavation dewatering programme is therefore expected to be clean. It is likely however that this water will contain suspended soil particles associated with the excavation works. The water should be discharged to the Irish Water storm sewer that should be regulated by a trade effluent discharge license. The licence will specify the emission limit values (ELVs)

that must be complied with to ensure the discharge does not adversely affect the water quality at the final discharge point of the storm sewer.

10.8 Surface water

There are no sustainable drainage systems or flow control devices in place at the site. In storm events, un-attenuated and untreated surface water discharge can contribute significant flows to the combined sewers. The foul and combined sewer flows in this area discharge to the Wastewater Treatment Plant (WwTP) in Ringsend. Surface water discharge to the combined sewer system contributes to inundation of this system in storm events and recurring untreated discharge of combined sewer flows to open water bodies in Dublin Bay through combined sewer overflows.

Surface water run-off from surface construction activities has the potential to become contaminated. The main contaminants arising from surface construction activities include:

- Suspended solids: arising from ground disturbance and excavation;
- Hydrocarbons: accidental spillage from construction plant and storage depots;
- Faecal coliforms: contamination from coliforms can arise if there is inadequate containment and treatment of onsite toilet and washing facilities; and
- Concrete/cementitious products: arising from construction materials.

  These pollutants pose a temporary risk to surface water quality for the duration of construction if not properly contained and managed. Suspended solids, which can include silt, affect surface water turbidity, and are considered to be the most significant risk to surface water quality from construction activities. Suspended solids can also reduce light penetration, visually impact the receiving water, and damage the ecosystem. Potential construction activities that could generate suspended solids include:

- Water removal from surface excavations as a result of rainfall or groundwater seepage;
- Wash water;
- Runoff from exposed work areas and excavated material storage areas; and
- Cement washdown areas: The potential for cement to increase the pH of water above a neutral range, which is typically pH 6 to 9.

Potential activities that could generate the other pollutants listed above include:

- Inappropriate handling and storage;
- Leakage of temporary foul water services; and
- Solid wastes being disposed or blown into watercourses or drainage systems.

10.8.1 Surface water alleviation measures

Prior to construction the Works Contractor will prepare a detailed Construction Environmental Management Plan for enabling and new build works. Plans will incorporate all alleviation measures which will apply for the prevention of pollution to all waters during construction.

10.9 Waste management

Waste should be produced from surplus materials such as broken concrete blocks or off-cuts of timber, plasterboard, tiles, bricks, etc. during the construction phase. Waste from the oversupply of materials, packaging (cardboard, plastic, timber) and typical municipal wastes from construction employees including food waste will also be generated. The recommended waste management alleviation for the construction phase of the proposed development is

included in the Resource & Waste Management Plan (R&WMP) which meets the requirements of current Guidelines.

Implementation of a R&WMP will seek to ensure effective waste management and minimisation, reuse, recycling, recovery, and disposal of waste material generated during the construction phase of the project. Where waste generation cannot be avoided this Plan will maximise the quantity and quality of waste delivered for recycling and facilitate its movement up the waste hierarchy away from landfill disposal and reduce its environmental impact. The Works Contractor's R&WMP must detail the intended practice for the management of waste arising from the construction and demolition processes and in particular the management of hazardous waste and recyclable materials. In particular the Plan shall specifically address the following points:

10.9.1 Overall waste management

- Analysis of waste arising | material surpluses;'
- Specific Waste Management objectives of the project including waste minimisation and the potential to reuse, and process materials generated on site in the construction phase;
- Methods proposed for Prevention, Reuse and Recycling;
- Waste Handling Procedures;
- Waste Disposal Procedures, including tracking of waste to final destination;
- Waste auditing; and
- Record keeping, including gate receipts for waste brought to authorised Waste Handling Facilities.

10.9.2 Waste compound

- Details of the provision of a resolute and secure compound, containing bins and skips into which all waste generated by construction site activities should be placed;
- Responsibility for provision of signage and verbal instruction to ensure proper housekeeping and segregation of construction waste materials; and
- Responsibility for identification of Permitted Waste Contractors who shall be employed to collect and dispose of waste arising from the construction works.

10.9.3 Waste reuse and recycling management

- Identification of potential for Reuse of Inert Wastes; and Proposed management measures.

10.9.4 Hazardous waste

- Identification and management of any Hazardous Wastes likely to arise during the construction process; and
- In the event that hazardous soil, or historically deposited hazardous waste is encountered during the work, the Works Contractor must notify FCC Environmental Enforcement Section, and provide a Hazardous/Contaminated Soil Management Plan, to include estimated tonnages, description of location, any relevant alleviation, destination for authorised disposal/treatment, in addition to information on the authorised waste collector(s).

10.9.5 Construction waste

10.9.5.1 Waste management (collection Permit) Regulations, 2007 as amended

- Waste from the proposed development may only be collected by the holder of a waste collection permit or a local authority. Waste collection permits are granted in accordance

with the Waste Management (Collection Permit) Regulations, 2007 as amended. Waste storage and collection areas on site should be designed to prevent environmental pollution.

10.9.5.2 Waste management (shipments of Waste) Regulations 2007 S.I. No. 419

- Where waste from the proposed development is exported outside of Ireland for recovery or disposal the national TFS office within Fingal County Council must be notified. Certain financial guarantees must be in place and certified issued by the national TFS officer prior to the waste movement taking place.

10.9.5.3 Construction stage waste

- During actual construction activities, waste should be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete tiles, glass etc., some packing waste is also expected to be produced. Surplus soil / gravel is expected to be produced due to cut | fill activities;
- This is anticipated to consist of surplus of materials arising from cut-offs of concrete blocks, bricks, tiles, timber joists, steel reinforcement etc.; and
- Waste from packaging and oversupply of materials is also expected.

10.9.6 Roles & training for waste management and site crew Waste Manager

- The Works Contractor will appoint a dedicated Waste Manager to ensure commitment, efficiency and site protocols upheld during construction stage;
- The role of the Waste Manager should be to record, oversee and manage everyday handling of waste on the site;
- Their training should be in setup and maintaining record keeping systems and how to produce an audit to ensure waste management targets are being met; and
- They shall also be trained in the best methods for segregation and storage of recyclables. They will also be familiar with the suitability of material reuse and know how to implement the C&D.

10.9.7 Tracking and documentation procedures for off-site waste

The Waste Manager will maintain a copy of all waste collection permits. If waste (soil & stone) is being accepted on-site, a waste docket must be issued to the collector. If the waste is being transported to another site, a copy of the waste permit or EPA Waste Licence for that site must be provided to the waste manager. If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) document must be obtained from Fingal County Council (as this is the relevant authority on behalf of all authorities in Ireland) and kept on-site along with details of the final destination (permits, licences etc.). As well as a waste collection docket, a receipt from the final destination of the material should be kept as part of the on-site waste management records. All information should be entered in a waste management system to be maintained on-site.

10.9.7.1 Record keeping

Records shall be kept for each material leaving the site for all types of use or disposal. This shall take the following basic outline form:

- Waste taken for reuse off site;
- Waste taken for recycling;
- Waste taken for disposal; and
- Reclaimed waste materials brought to site for reuse.

For any movement of waste, a docket shall be signed and recorded by Waste Manager, detailing type and weight of material and source or destination. This should be readily comparable with all delivery records to site, so a waste generation percentage for each material can be determined. This will allow ease of comparison of figures with targets established for the recovery, reuse, and recycling of Construction waste. It will also highlight the source of failure in meeting these targets.

10.9.7.2 Waste audit procedure

The Waste Manager shall perform audits at the site during the complete construction phase of the works. This shall ensure that all records are being maintained for all movements of all materials. Records shall also be readily available for comparison with the site's targets. At completion of the Construction phase a final report should be prepared outlining the results of the Waste Management process and the total reuse, recycling, and recovery figures for the site.

10.9.8 Consultation with relevant bodies

FCC should be consulted throughout the construction phase to ensure that all available waste reduction, reuse, and recycling options are being explored and utilised and that compliant Waste Management is being conducted at the site. Specialist companies, wherever required, should be contacted to determine their suitability and each company's record reviewed to ensure relevant current collection permits / licenses are held. Companies will also be contacted to gather information regarding treatment of hazardous materials, if required (although not anticipated for this site), costs of handling and the best methods of transportation for recycling or reuse when hauling off site.

10.9.9 Pest control

The Works Contractor should be required to adopt an Integrated Pest Management Plan as part of the works. This plan will establish a sustainable approach to managing pests in order to minimise health and environmental risks throughout the construction works and is to be prepared in accordance with the guidelines set out in the '*Rodent Control for Construction Industry' information* leaflet as issued by the Health Service Executive, Environmental Health Service, 2009. The Works Contractor should be responsible for ascertaining if the proposed lands are currently infested rodents and other pests. If so, any lands should be required to be disinfested by a pest control specialist, as is possible given the nature of the site. Throughout the works, the Works Contractor should be responsible for ensuring that a good standard of hygiene is maintained to limit the attraction of rodents and other pests to the site. Measures are to include, but are not limited to the following:

- Waste food, empty food tins, and other waste to be stored in bins with sealed lids;
- Accumulations of construction debris which may provide harbourage for rodents are to be cleared away regularly and in a timely manner; and
- Stocks of building material are to be neatly stored.

The Works Contractor shall implement measures to prevent infestations during the proposed works. This will include infestation of existing and proposed drains, sewers, ducts, and nearby properties. Measures are to include, but are not limited to the following:

- Removal of all existing refuse from site;
- During the laying of new drains, the sewers, open pipe ends, and utility access holes are to be protected against entry by rodents when work is not in progress – particularly at night-time; and
- Surface water pipes discharging into watercourses to be fitted with an antiflood flap valves at outlet points.

A finalised Pest Control Management Plan is required to be submitted by the Works Contractor to the Applicant prior to commencement of works.

11 Environmental emergency response plan

11.1 Response plan (also refer Sections 7.1.3 to 7.1.7 of the Ecological Impact Assessment Report)

Emergency response preparedness should be addressed in detail by the Works Contractor. Environmental emergencies at the site requiring intervention will include:

- Discovery of a fire within the site boundary;
- Uncontained spillage | leak | loss of containment incident; and
- Discovery of material of archaeological interest.

A list of site emergency contact numbers and the general emergency response actions should be compiled by the Works Contractor and posted at strategic locations throughout the site, such as the main site entrance, safety stop-boards and contractor cabins. The Works Contractor will update the emergency contact number list to include their safety representative contact name and telephone number. An example of emergency response actions is as follows for action to be taken in the event of a spillage:

- IF SAFE, stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers;
- IF SAFE (USE PPE), contain the spill using the absorbent spills material provided. Do not spread or flush away the spill;
- Cover or bund-off any vulnerable areas where appropriate;
- If possible, clean up as much as possible using the absorbent spills materials;
- Do not hose the spillage down or use any detergents;
- Contain any used absorbent material so that further contamination is limited;
- Note: This material is a waste and must be treated as such. The Safety Data Sheet (SDS) for the material will determine whether the spill material is hazardous or non-hazardous and will need to be disposed of accordingly;
- Notify the project Teams Construction Safety Representative at the earliest opportunity; and
- An incident investigation should be performed in accordance with procedures and the report sent to the project team Project Manager.

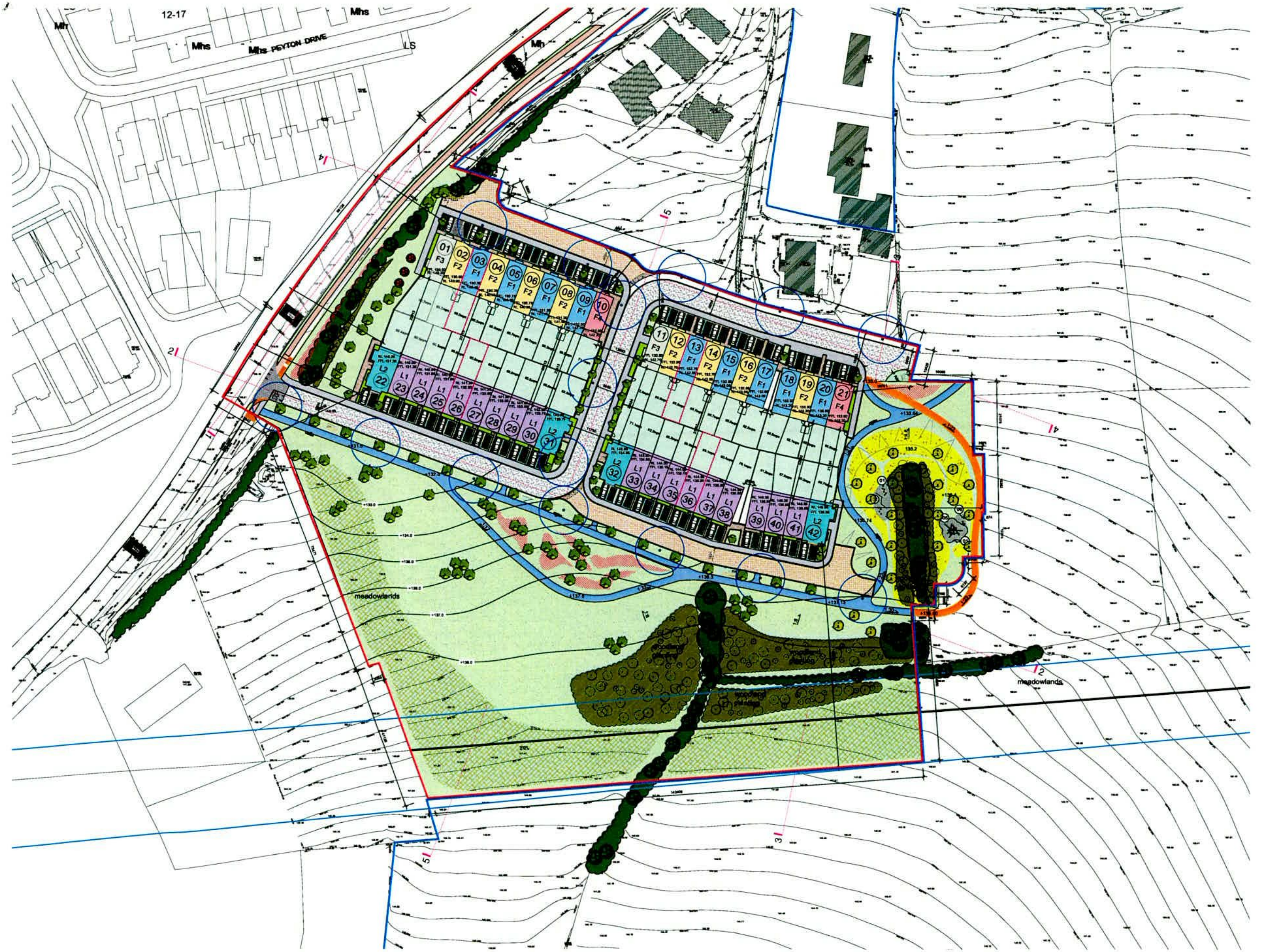
The Works Contractor will ensure that fully detailed records are maintained of any 'incident | event' likely to cause harm to the environment. Contractors who report an incident will ensure details are identified and recorded.

Environmental incidents should be recorded on an appropriate form.

Complaints and Follow up Actions on the construction site should be managed by the Works Contractor's Contracts Manger in liaison with the project Manager and contractors will ensure that all complaints are recorded according to Client requirements. A complaints log should be kept and any complaint from interested parties should be actioned and recorded.

The Works Contractor should be responsible for ensuring that a full record and copy of all Safety Data Sheets (SDS) pertaining to their works is kept on file and up to date in their site offices. The Works Contractor will also retain a duplicate copy of all SDSs held.

Appendix A – Development site redline boundary drawing



PROPOSED SITE LAYOUT
SCALE 1:500

1. All boundaries, dimensions and levels are to be checked on site before construction and any discrepancies are to be reported to the Architect.
2. Partial Service: Any discrepancies with site or other information is to be advised to the Architect and direction or approval is to be sought before the implementation of the detail.
3. Block and site plans are reproduced under license from the Ordnance Survey.
4. Do not scale this drawing.
5. For the purpose of coordination, all relevant parties must check this information prior to implementation and report any discrepancies to the Architect.

HOUSE TYPE LEGEND KEY

42 UNITS

Type	Description	No.
F1	TYPE F1 TERRACED/END OF TERRACE 3 BEDROOM / 5 PERSON / 3 STOREY	09
F2	TYPE F2 TERRACED 3 BEDROOM / 5 PERSON / 3 STOREY	08
F3	TYPE F3 END OF TERRACE 3 BEDROOM / 5 PERSON / 3 STOREY	02
F4	TYPE F4 END OF TERRACE 3 BEDROOM / 5 PERSON / 3 STOREY	02
L1	TYPE L1 TERRACED/END OF TERRACE 3 BEDROOM / 5 PERSON / 2 STOREY	17
L2	TYPE L2 TERRACED/END OF TERRACE 3 BEDROOM / 5 PERSON / 2 STOREY	04

LEGEND

- SITE BOUNDARY: 2.9 HA / 7.19 AC
- OTHER LANDS IN POSSESSION OF APPLICANT
- DESIGNATED PART-V UNITS

AREA SCHEDULE

[illegible]

PLANNING - DRAFT

Adrian Hill Architects
No. 15 The Seapoint Building,
44/45 Clontarf Road, Dublin 3.
t: +353 1 479 3141
w: adrianhill.ie

Client
Romeville Developments Ltd.

Project
Rathcoole

Drawing
PROPOSED SITE LAYOUT 1-500

Job No	Reg No	Rev No	Status
2227	(P)007	-	PLANNING - DRAFT

Scale	Date	Drawn by	Checked by
1:500@A1	Jul-22	JFK	FW

Revisions
REV No DATE NOTE