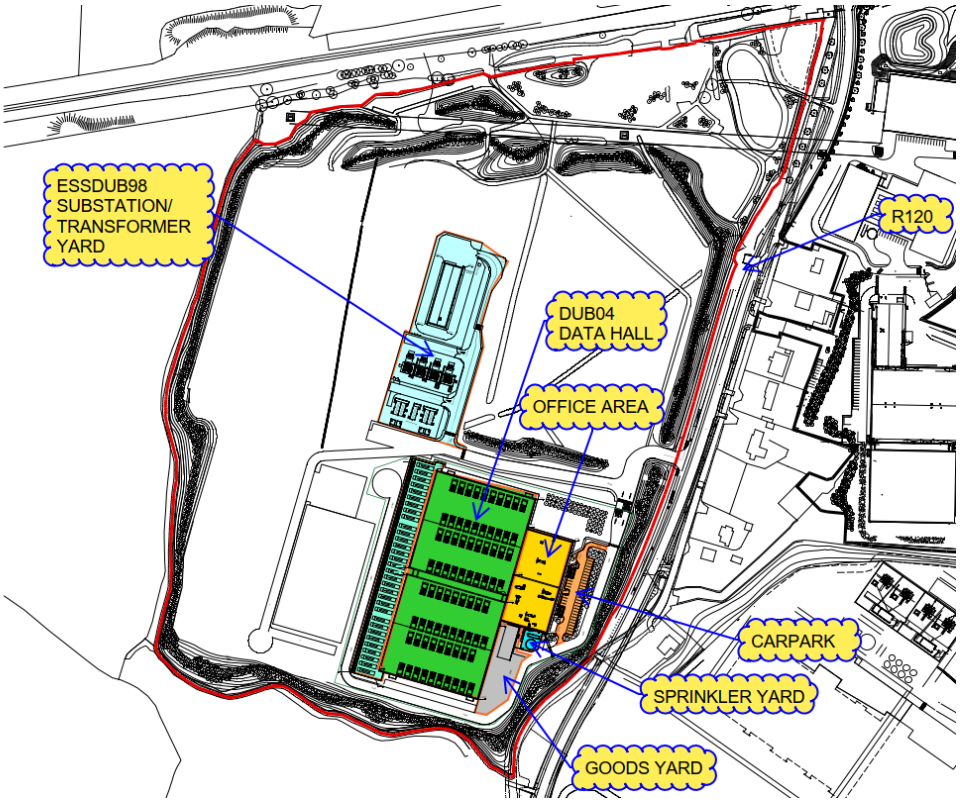
Project	**EDCDUB04/ESSDUB98**
Document Title	**Construction Management Plan (CMP)**
Document Reference	**EDCDUB04/ESSDUB98-CMP**
Planning Reference Nos.	**SD19A/0042, ABP 305948-19, SD22A/0105.**



The Client	edgeconnex®	**Edgeconnex**
The Contractor/ PSCS	WINTHROP ENGINEERING EXCELLENCE	**Winthrop Engineering & Contracting Ltd.**
Consulting Engineers	PINNACLE CONSULTING ENGINEERS	**Pinnacle Consulting Engineers**
Architect	Henry J Lyons	**Henry J Lyons Architects**
Project Scope	Construction works on the Project EDCDUB04 Data Centre and ESSDUB98 Substation. and associated works including: • Single Story Data Halls with 32 standby Generators • Office and Service Areas • Road Infrastructure including services. • Car Parking • ESB Substation and Transformer Yard.	

Date	**23-11-22**	**Status**	**Rev 2**

CONTENTS

Document Verification

Job title:	EDCDU04 Data Centre Project		Job number: Dub 04
Document title:	Construction Management Plan – EDCDUB04 Dublin		File reference: IF

Revision	Date				
Rev 1.0	Aug 2022	Filename	1.04.01 Dub 04/98 Construction Management Plan		
		Description	Construction Management Plan for EDCDUB04/ESSDUB98		
			Prepared by	Checked by	Approved by
		Name	Cathal Coffey	Mick Murray	Peter O'Flaherty
		Signature			
Rev 2.0	23rd Nov 2022	Filename	1.04.01 Dub 04/98 Construction Management Plan		
		Description	Change in layouts		
			Prepared by	Checked by	Approved by
		Name	Cathal Coffey	Mick Murray	Peter O'Flaherty
		Signature			
Rev 3.0		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
Rev 4.0		Filename			
		Description			
			Prepared By	Checked By	Approved By
		Name			
		Signature			

1. GENERAL

This document outlines the Execution Methodology and supporting systems / procedures that will be applied to deliver the project during the Construction Works for the Dub04/Dub98 Project.

2. DEFINITIONS, TERMS, ACRONYMS

Documentation (quality control) - procedure and any form of quality reports, etc. contained herein.

Client – Edgeconnex

Engineer - means the representative of the Client

Contractor/ PSCS – Winthrop Engineering & Contracting (WEC)

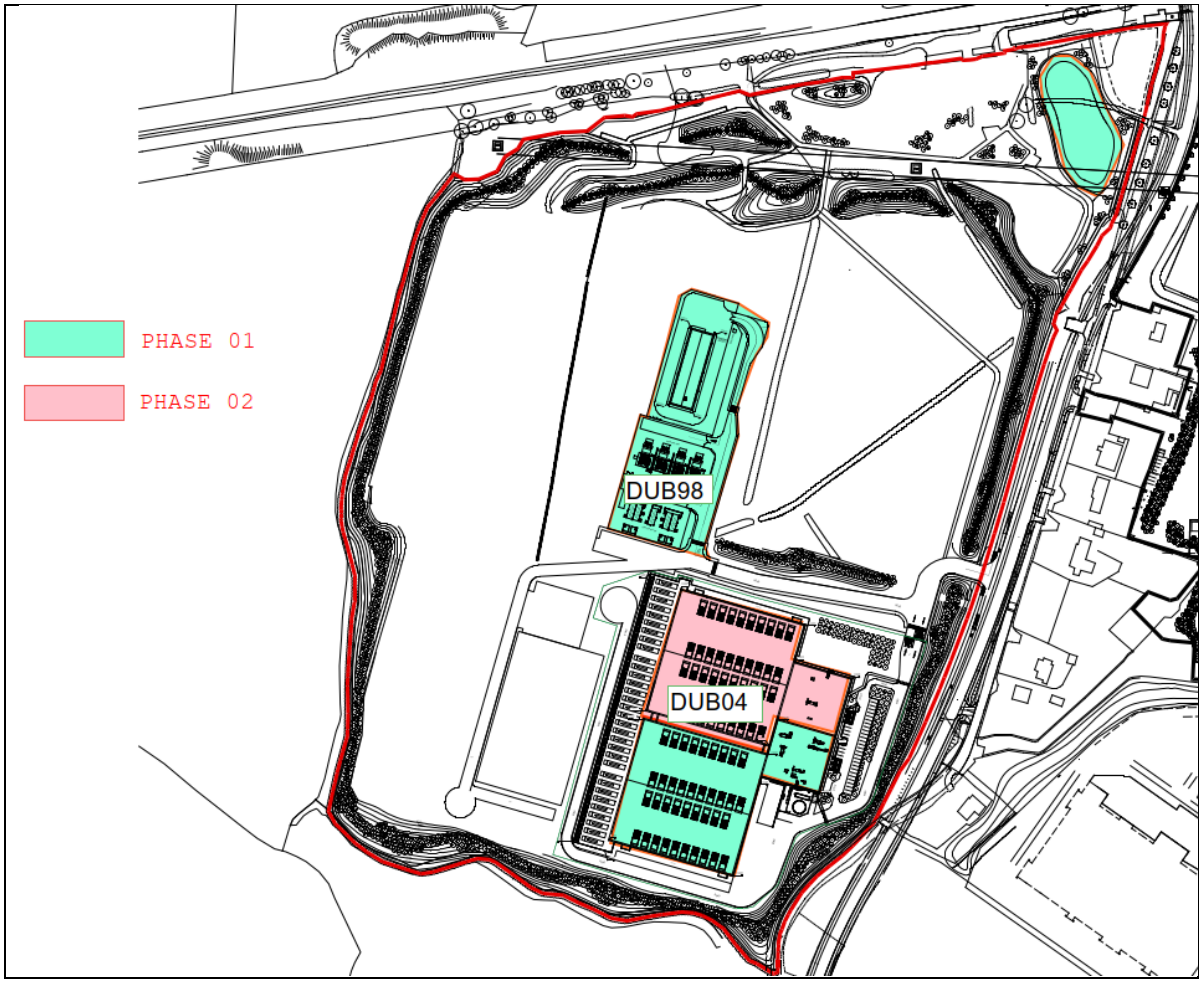
Subcontractor – Winthrop appointed firm, contracted to perform any specialist works

Drawings - Client plans (schemes), BIM Models, profiles, typical cross sections, working drawings, standard drawings and additional drawings or copies that show the location, the nature, size and details of the work.

Site - Part of the right of way and the working width, as provided in the specifications, drawings, and conditions of the contract, where the work of the permanent construction is carried out.

Specifications Operating specifications included in the contract, any modification or addition made under the contract.

3. DESCRIPTION OF WORKS



See below description for the Dub98/Dub04 Works:

ESSDUB98 Works:

Construction of permitted substation compound, to include an extension of the compound area to c. 0.77 hectares; reorientation of the Gas Insulated Switchgear (GIS) substation building to a north-south orientation, and associated amendments to the building footprint, layout, and elevations, providing for a two storey building with a gross floor area (GFA) of c. 1,456 sq.m; alterations to the permitted single storey Client Control Building to provide for the substitution of this structure with 5 single storey modular client control units, with a combined total GFA of c. 231 sq.m (GFA of c. 46.2 sq.m per module); associated amendments to the permitted substation access arrangements (3 gated access points provided), transformers, security fencing (to be 2.6 metres high in place of the 2.4 metre high fencing permitted), lighting, services, MV substation, parking, utility cabling, amendments to permitted landscaping and berms adjoining the substation compound and associated and ancillary works.

EDCDUB04 Works:

Phased development that will include four single storey data halls all with associated plant at roof level: 32 standby generators with associated flues (each 15 metres high), associated office and service areas, service road infrastructure and car parking, Electricity Supply Board sub-station/transformer yard with an overall gross floor area of 17,685 square metres. Phase 1 - two single storey data halls (6,950 square metres) with roof plant and 16 stand-by generators with associated flues (each 15 metres high) as well as associated water tower and pump room and other services, single storey goods receiving area/store and single storey office area (1,522 square metres) located attached and to the north-east of the data halls, attenuation pond, two-storey Electricity Supply Board sub-station (494 square metres) with associated transformer yard and single storey transformer building (247 square metres) within compound, Phase 2 - two single storey data halls (6,950 square metres) with roof plant and 16 stand-by generators with associated flues (each 15 metres high) as well as associated water tower and pump room and other services, single storey goods receiving area/store and single storey office area (1,522 square metres) located attached and to the east of the data halls under this Phase and attached and to the north of the offices proposed under Phase 1, also ancillary site works, connections to existing infrastructural services as well as fencing, signage, vehicular access off the realigned R120 to provide a new vehicular access into the site as well as internal service roads and entrance gates, car park for 39 car parking spaces (including four disabled car parking spaces), sheltered bicycle parking to serve the development. The development will be enclosed with landscaping to all boundaries of the overall site of 22.1 hectares. Application for enabling works to facilitate this development has been made under planning register reference number SD19A/0004. An Environmental Impact Assessment Report (EIAR) has been submitted with this application. An EPA-Industrial Emissions (IE) licence will be applied for to facilitate the operation of Phase 2 of the permission. All within the townland of Ballymakaily, Newcastle Road, Lucan, County Dublin.

4. LOCATION

Dub04/Dub98 works development is located on a 22.1ha site to the immediate west of the recently realigned R120 Newcastle Road within the townland of Ballymakaily, Lucan Dublin 22.

The Site is bounded by the Grand Canal to the North. The R120 and residential properties are located to the east of the site. The site is also bounded by further agricultural lands, zoned for development to the south and west.

The site is located between the N4 and N7 national primary roads and is served by an improving network including the regional roads R120 (which has recently been upgraded with

a new bridge over the Grand Canal), R134 and R136 (The Grange Castle Road) and the road network through the Grange Castle Business Park.

5. PROJECT PROCESS

The nature of this project necessitates the appointment of a PSCS whom has the demonstrable track record in Rapid Delivery of similar projects whilst taking into consideration the unique elements such as.

- Fast Track Nature of the Projects Design, Construction & Commissioning Phases
- An outcome-oriented procurement model including Early Contractor Involvement
- Pre-Construction focus on preparation of a detailed BIM model
- Multi Stakeholder & interface Management

5.1 Project Schedule

The relevant stakeholders will agree a project schedule to ensure all works are planned and executed safely on site.

Construction Period (Enabling Works):

1. 4th quarter 2022
2. 2nd quarter 2024

5.2 Project Working Hours

The construction period for the Enabling works is anticipated to be approximately 4 months from the commencement of the site works. The works will be managed through day shifts with the invasive works being predominantly focussed on off peak hours and weekends.

- Working hours are 7.00 -19.00 hours Monday to Friday
- Saturday working hours are between 9.00 to 13.00
- Working on Sundays and public holidays is not permitted without permission from Winthrop site management.

Specific works that take place within engineering hours, after the hours specified above, or at night must have written permission from Winthrop Engineering & Contracting Ltd. for these works prior to their commencement.

Refer to Section 9.3 of this document that will utilised in determining tasks that can be carried out the normal working hours as defined above.

5.3 Execution Stages

As per the scope of work stated in the RFP, Winthrop are fully conversant with the proposed execution stages from design onwards including but not limited to.

- Early Contractor Involvement
- Engineering/Design (if applicable)
- Production of BIM Models as part of a wider team and its integration into a federated mode. Winthrop will provide a BIM Execution plan as part of works contract
- Procurement with emphasis on long lead items
- Construction & Testing
- Handover

5.4 Project Execution Approach

Winthrop is a multi-discipline turnkey contracting company headquartered in Dublin. As the PSCS, we recognise the importance of an integrated supply chain consisting of material vendors, Subcontractors and Specialist service providers to deliver projects on time and within budget.

Our project portfolio includes numerous fast track projects on both new build and brown field sites, allowing the company to develop working experience and operational expertise catering for fast track and mission critical projects.

Winthrop is ideally suited to execute this project drawing upon an experienced project management team with a proven track record.

The project organization is a classic hierarchical project organization where the ownership of the project delivery resides with the Project Director.

Various elements of the project organization are described in detail under the respective sections below. This project will be under the direct sponsorship of a WEC Executive Director ensuring total commitment throughout the project life cycle.

5.5 Project Management & Organisation

This project will be managed by a Project Director with a proven track record particularly in cleanroom delivery and strong project management capabilities.

The Project Directors responsibilities will comprise of:

- Reporting all aspects of the project to the Representatives of The Client.
- Co-ordination between Winthrop and The Client project management team.
- Management and delivery of all WEC project requirements in line with the Project Execution Plan.

- Management and control of the project budget and deliverables
- Management and control of contracts/subcontracts issued by WEC
- Management and control of all Safety aspects
- Management, control and delivery accountability for Procurement and Construction schedule and productivity
- Liaison with any/all parties involved such as local county councils etc
- Management and control of Key Intervention Points as indicated above
- Client focal point
- Delivery accountability of project deliverables

5.6 Project Kick Off

Immediately following any contract award, a Kick-Off meeting will be held with The Client, Subcontractor and WEC to review the Contract and to define all Project co-ordination aspects.

The following members of the Project Team will attend the Kick-off meeting where applicable to the scope of work

- The Client Manager
- Project Director
- WEC Executive sponsor
- Architectural Lead
- Project EHS Manager
- Proposals Manager
- Environmental Manager

During the Kick-off meeting, the following topics will be discussed:

- Health & Safety
- Site Planning conditions
- Contract Risk Register
- Critical Dates Schedule
- Contract Finalisation & Early Enablement
- Scope of Services / Works
- Project Procedures
- BIM Execution Plan

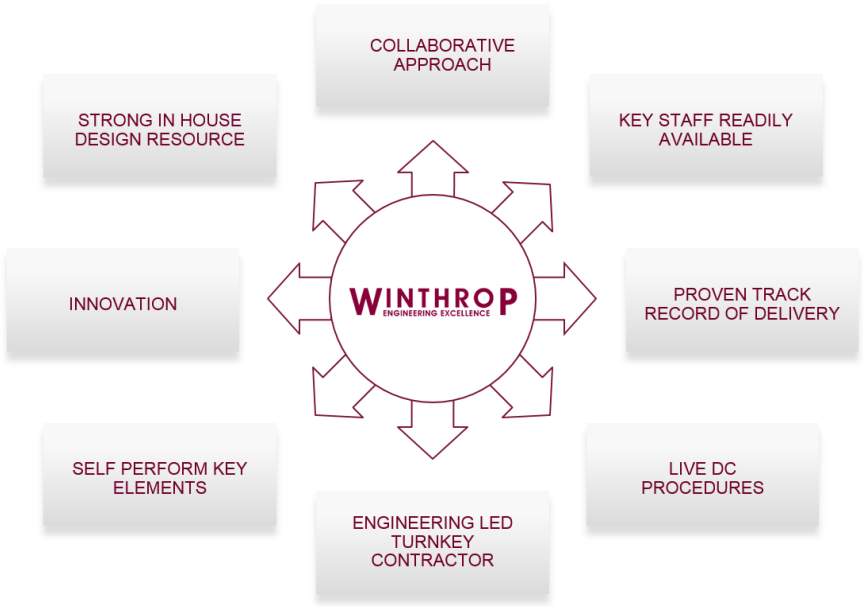
- Design Co-ordination Procedure and Document Distribution
- Interface Identification & Management
- Meetings and Reporting
- Project planning and Scheduling
- Off Site Manufacturing Scopes
- QA / QC Plan
- Safety requirements / Client's standards
- Data required from The Client
- Plan for site mobilization
- Contact details and representation responsibilities
- Impact on any Live Services
- Agreed Communication Channels
- Updating and site documentation to reflect changes
- Updating of O&M Documents to reflect any changes
- Any other Business

6. CRITICAL SUCCESS FACTORS

As part of a preliminary review of the design and construction schedules, Winthrop will identify the factors that are critical to the success of these projects, and these would be afforded the appropriate time and diligence in the initial stages of both the design and construction phases to ensures any risks are mitigated and alternative strategies and contingencies are available.

Costs, timelines, correct selection of appropriate equipment will be factored in these discussions

Following are the Critical Success Factors of this project:



- Timely contract award allowing contractual engagement with specialist subcontractors as required depending on the site to site scope requirements
- Early Contractor Involvement incorporating constructability whilst achieving the shortest possible document approval turnaround cycles with emphasis on key engineering design deliverables to facilitate early placement of Purchase Orders to meet the project milestones.
- Early appointment of WEC BIM Team
- Early engagement with Client BIM/ Engineering team to maximise the output from the Contractors team and a right each time approach to the federated model
- A comprehensive understanding of interface management and the interdependencies of each to achieve a successful outcome
- Early Identification of Critical Path Items and schedule risks, identifying mitigations for the same.
- Effective Logistics Planning
- Non-adversarial project management approach from both Company and Contractor.
- Develop a working relationship based on trust which will accomplish the goal of a successful project executed on or before time and within budget.

7. QUALITY MANAGEMENT SYSTEM

WEC has a fully Integrated Management System (IMS) and is fully certified to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018.

The ISO 9001 management system is mature, with a long history of project delivery, in particular complex CSA, mechanical and electrical installation projects. The Integrated Management System underpins our Project Management Process.

PHILOSOPHY

Winthrop operates a Client focused approach as the core principle of its QA/QC Philosophy and is accredited to:

- **ISO9001:2015 – ISO14001:2015 – ISO45001:2018**

The company manages the requirements of these standards through its Integrated Management System (IMS).

ALIGNMENT WITH CLIENT DELIVERABLES AND EXPECTATIONS

The Winthrop project QA/QC approach must be aligned to the Client QA/QC deliverables and expectations through the following elements:

- **Common terminologies**
- **Pre-construction and in project meeting agendas**
- **Common format for inspection reports**
- **Agreeing common formats for punch list coordination**
- **Alignment of Winthrop in process tagging at project commissioning with the appropriate tagging process**

EQA

www.eqa.ie

Certificate of Registration
of Quality Management System to
I.S. EN ISO 9001:2015

EQA (Ireland) Limited certifies that

Winthrop Engineering & Contracting Ltd.

Unit 7, Turnpike Business Park
Turnpike Lane
Ballymount
Dublin 22

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Mechanical and Electrical Contracting, Maintenance & Associated Building Works

Signed ..... DIRECTOR DATE: 20th August 2020

on behalf of EQA (Ireland) Limited

Registration Number Q3956 valid until 12th August 2023

Date of initial award of certification: 20th August 2017
Date of re-certification audit: 15th July 2020
Date of renewal of certification: 20th August 2020
Date of expiry of previous certification: 12th August 2020

and is issued subject to the regulations, and within the accredited scope, of

EQA (Ireland) Limited
Office A, 2nd Floor
Citywest Shopping Centre
Citywest Business Park
Dublin 24
Ireland

IAF

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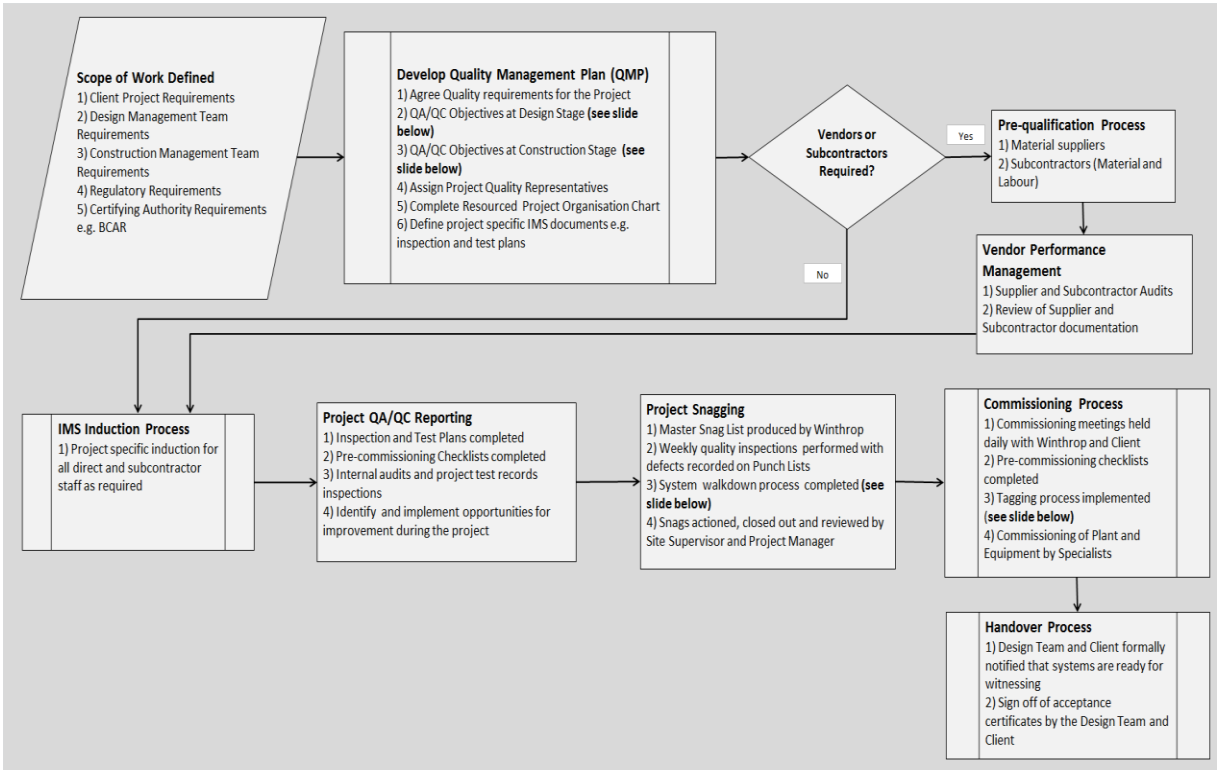

Upon award, a project specific Quality Management Plan will be developed in conjunction with The Client, identifying and detailing the QA and QC arrangements to be implemented throughout the project lifecycle.

A site-based QA/QC Manager would be appointed to oversee the quality control arrangements and provide guidance to the site teams and supervisory managers throughout the design and build processes. They will also liaise with the engineering and BIM leads and team as well as the OSM and Off-site Laydown leads and team to ensure that the agreed processes are fully incorporated.

Each individual discipline lead will have responsibility for their disciplines and for co-ordinating the CSA aspects of works under their control, and co-ordinating with design and construction suppliers to ensure the correct verification against specification takes place and that there are the appropriate QC checks carried out during the installation.

The QA/QC Manager will engage very early on with the client to understand the labelling and verification processes required by the client,

The function of these labelling and equipment schedules will be multipurpose. These Master Schedules will be used for the Generation of all Subsequent Technical Submittal, Procurement, Construction, QA-QC & Commissioning Documentation. These schedules will also be the Aligned Equipment Naming Convention that will be the Master Document Names for all plant and equipment on site and feed into the Client Asset Management / DCIM Systems. All communications to 3rd Party Suppliers, Design Team Members will refer to these Equipment Naming Conventions.

The QA/QC Manager would be responsible for preparing the Quality Management induction which must form part of the overall site induction

The design QMP (Quality Management Plan) would be agreed with all design partners, and in particular any design verification check sheets, or design risk assessments templates would be discussed. Also, with regard to the BIM Execution Plan, the QMP will ensure that the BIM lead is complying with the B.E.P. especially with regards to their responsibilities for the production of a federated model.

It is our experience that utilising a consistent template for documentation, assessments and submittals can often aid with the consolidation of the commissioning and O&M information at the handover of different sections of the project.

As per normal Winthrop Quality procedures, a Quality plan will be produced which details our IMS processes and procedures but also details the design and construction verification checklists, and MEP checklists that the company utilises to ensure appropriate QC takes place throughout the works programme.

8. EHS MANAGEMENT

Safety is a core value within WEC. Our familiarity with Rapid Delivery projects and simultaneous operations strengthens our dedication to EHS and our commitment to our Risk Identification process. WEC are committed to a zero-accident work environment and fully appreciate our responsibility towards environmental management. This is achieved by effective implementation of the ‘EHS Culture’ amongst the workforce with demonstrable personal commitment from the senior management and project team members.

WEC are accredited under the ISO: 45001 and ISO: 14001 management system specifications. In October '19 we successfully achieved our recertification of the same. The Managing Director has overall responsibility for Environmental Health & Safety within the company, and the Project Director has responsibility for EHS on projects under their control.

EQA®

www.eqa.ie

Certificate of Registration

Occupational Health and Safety Management Systems

I.S. ISO 45001:2018

EQA (Ireland) Limited certifies that

Winthrop Engineering & Contracting Ltd.

Unit 7, Turnpike Business Park
Turnpike Lane
Dublin 22

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Mechanical and Electrical Contracting, Maintenance & Associated Building Works

Signed: DIRECTOR DATE: 20th August 2020

on behalf of EQA (Ireland) Limited

Registration Number OHSAS3956 valid until 12th August 2023

Date of initial award of certification: 25th February 2019
Date of re-certification audit: 15th July 2020
Date of renewal of certification: 20th August 2020
Date of expiry of previous certification: 12th August 2020

and is issued subject to the regulations, and within the accredited scope, of

EQA (Ireland) Limited
Office A, 2nd Floor
Citywest Shopping Centre
Citywest Business Park
Dublin 24
Ireland

IAF

INAB

EQA®

www.eqa.ie

Certificate of Registration

of Environmental Management System to

I.S. EN ISO 14001:2015

EQA (Ireland) Limited certifies that

Winthrop Engineering & Contracting Ltd.

Unit 7, Turnpike Business Park
Turnpike Lane
Ballymount
Dublin 22

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Mechanical and Electrical Contracting, Maintenance & Associated Building Works

Signed: DIRECTOR DATE: 20th August 2020

on behalf of EQA (Ireland) Limited

Registration Number E3956 valid until 12th August 2023

Date of initial award of certification: 20th August 2017
Date of re-certification audit: 15th July 2020
Date of renewal of certification: 20th August 2020
Date of expiry of previous certification: 12th August 2020

and is issued subject to the regulations, and within the accredited scope, of

EQA (Ireland) Limited
Office A, 2nd Floor
Citywest Shopping Centre
Citywest Business Park
Dublin 24
Ireland

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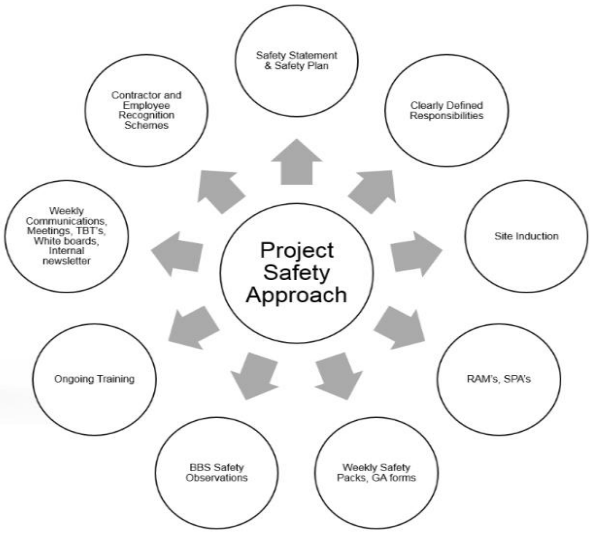
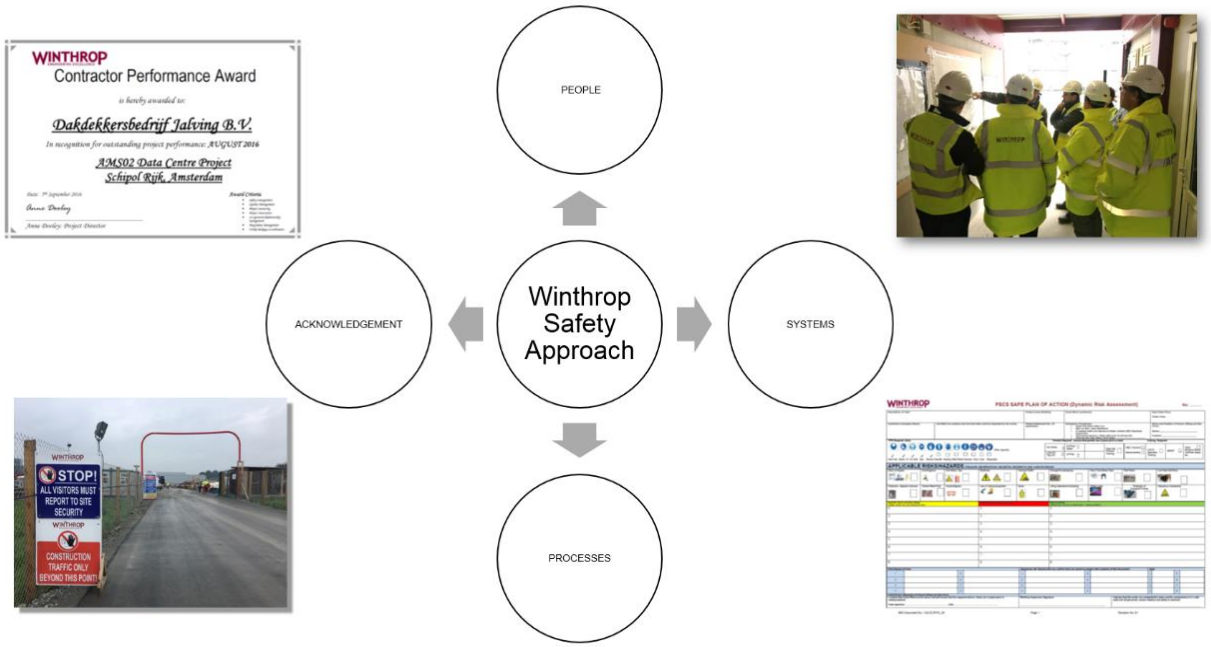
An important part of our EHS strategy is the development of a health and safety culture with all staff, contractors and stakeholders involved both at a company level and at a project level. The setting of safety as a core value with the correct mix of engagement and enforcement ensures that all personnel appreciate and understand the company arrangements and measures to ensuring a high standard of safety performance is achieved.

The Winthrop operational management systems are one of the main arrangements we have in place to aid in the maintenance of our EHS performance on projects. The systems are mature and contain suitable procedures, processes and templates to provide guidance to all staff, co-ordinate and control higher risk elements of works, and provide proactive templates to foster co-ordination and communication between all disciplines involved in the project.

The EHS team for this project will be led by an experienced EHS Manager with significant experience in large projects, working in live and occupied environments and fast track general contracting works. The EHS team will be supplemented by EHS Officers in line with the construction programme and the numbers of operatives on the project. The EHS Manager has a direct reporting link to the Managing Director to ensure that Winthrop EHS values maintain the visibility and appreciation they require, and to ensure that all procedures are appropriately followed.

As a summary, the key aspects of our EHS related policies and procedures that would be implemented on this project would include:





- **Policies and Principles:** The Safety Management Plan will outline the required policies under which it shall operate. These will include the company H&S Policy, Environmental policy, Disciplinary policy, etc.
- **Responsibilities:** The Safety Management Plan will outline the HSE Management/Personnel responsibility and the required accountabilities to the various parties including the Company Management. The responsibilities of the Project Management Team will be defined, clearly demonstrate that all HSE requirements, plans and system will be implemented, and compliance is verified and documented.
- **HSE in Project Management:** The Safety Management Plan shall include reference to the documentation covering HSE technical, administrative and management aspects to ensure both the Contractor and its nominated sub-contractors are implementing the same standards and principles. Nominated sub-contractors HSE systems and performances will be assessed during pre-award and tendering stage and will be audited during the Contract period. These systems will include the project meetings and co-ordination processes, project induction and training arrangements, High risk works control and permitting systems, project EHS communication mechanisms (Toolbox Talks, Town Hall Meetings, Project Notice Board, Safety Award arrangements, Behavioural Safety systems, RAMS communication systems, etc.
- **HSE in Design:** During the design phase the Contractor shall perform Hazop (Hazard and Operability Analysis) , constructability Safety studies as required working from the concept and detailed design. This will ensure the design does not import unacceptable risks into the construction phase, which would likely transpose into the operation and maintenance phase. The main mechanism utilised to this intent is our Design Risk Assessment procedures, which includes for a consolidated design risk assessment template.

9. ENVIRONMENTAL MANAGEMENT

Winthrop are accredited to the ISO 14001 standard and have a multidisciplinary HSE team to manage all environmental aspects and impacts on site. The site Environmental management plan will address all environmental requirements. A register will be kept on site to track the various waste disposal hauliers and licences required.

WEC shall ensure the mitigation measures and commitments identified in the Environmental Impact Assessment Report, and other plans and particulars submitted with the planning application, and as identified in the schedule of mitigation measures outlined in the Environmental Impact Assessment Report, submitted to the planning authority on the 29th August, 2019, shall be implemented in full, except as otherwise be required in order to comply with conditions.

9.1 Dust & Air Quality

Dust prevention measures shall be included for control of any site airborne particular to pollution. WEC shall continuously monitor dust over the variations of weather and material disposal to ensure the limits are not breached throughout the project. Dust will be managed via the following:

- Where soil stripping occurs the resulting soil fraction should be separated into topsoil and subsoil stockpiles. These materials will be sealed.
- The temporary storage of spoil is to be managed in terms of spoil height and location to prevent release of windblown dust and managed by keeping the spoils at a max height of 3 metres.
- All construction trafficked areas are to be dampened down by water spraying etc.
- Wheel washing facilities will be made available. This will be used during throughout the duration of the project to prevent the drag of material on the under carriage of vehicles and bringing it back out onto to public roads.
- Local roads used by construction traffic will be continuously monitored, cleaned, and maintained as appropriate to ensure that any excess material carried off site is removed immediately.
- A site speed limit of 15 kph will be in place on site. Adherence to this speed limit will prevent the unnecessary generation of fugitive dust emissions.
- Bowsers or mist generators shall be used during dry weather or other periods at potential dust sources.

The potential for dust to be emitted depends on the type of construction activity being carried out in conjunction with environmental factors including levels of rainfall, wind speeds and wind direction. The potential for impact from dust depends on the distance to potentially sensitive locations and whether the wind can carry the dust to these locations. The majority of dust produced will be deposited close to the generated source.

To ensure that no dust nuisance occurs, a series of measures will be implemented.

- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any unsurfaced roads will be restricted to essential site traffic only.

- If required, any area/road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions.
- In dry conditions vehicles delivering material with dust potential (soil, aggregates) will be always enclosed or covered with tarpaulin to restrict the escape of dust. This can be work at height risk for the driver if they must manually cover the tarpaulin.
- Wheel washing facilities will be provided for vehicles exiting the site to ensure that mud and other wastes are not tracked onto public roads.

WEC will comply with British Standard B.S. 5228 Noise Control on Construction and Open sites and British Standard B.S. 6187 Code of Practice for demolition.

9.2 Vehicle Cleansing and Wheel Washing.

Given the volumes of construction traffic generated by the Site Works WEC shall ensure that adequate measures are implemented to maintain an appropriate level of cleanliness. WEC will engage with the Local Authority in relation vehicle cleanliness prior to and during construction. These methods will include the following:

- Wheel washing facilities located within the site confines. These facilities will be maintained and used during the construction operations. This operation will ensure that dirt not transported from the site to the public roads or footpaths.
- During periods of extended dry weather dust suppression measures will be in place. Suppression will involve the use of a tanker spraying water on the ground.
- WEC will have a Road Sweeper on call to clean the public road should there be a requirement to clean the same.
- There will be a hardstand carparking for construction personnel. The carpark will be delineated from earthworks operations ensuring cleanliness. The carpark will be cleaned and maintained as required.
- Adjacent public roads will be monitored and maintained during construction. Footpaths will be watered down and swept when required. A Road Sweeper will be used as required on the R120. WEC will maintain contact with the Local Authority during construction to ensure that Road and Footpaths are kept clean.

9.3 Construction Noise and Hours.

WEC will control, limit and prevent the generation of unacceptable levels of Environmental Noise Pollution from occurring during construction activity. No Equipment or Machinery (to include pneumatic drills, on-site construction vehicles, generators etc.) that could give rise to unacceptable levels of noise pollution as set out generally for evening and night-time in S.I. No. 140/2006- Environmental Noise Regulations 2006 shall be operated on site before 7.00 hours on weekdays and 9.00 hours on Saturdays nor after 19.00 hours on weekdays and 13:00 hours on Saturdays, nor at any time on Saturdays, Bank Holidays or Public Holidays. Any construction work outside these hours that could give rise to unacceptable levels of

noise pollution shall only be permitted following a written request to the Planning Authority., having regard to the reasonable justification and circumstances and a commitment to minimise as far as practicable any unacceptable noise outside the hours stated above. In this respect WEC will also comply with BS 5228:2009 Noise and Vibration Control on Construction and Open Sites and have regards to the World Health Organisation (WHO_-Guidelines for Community Noise (1999).

WEC shall implement measures to eliminate noise pollution wherever possible and reduce noise levels to the appropriate level. The proposed development shall comply with BS 5228 "Noise Control on Construction and open sites Part 1: Code of practice for basic information and procedures for noise control" (or such further limits as imposed by South Dublin County Council). Any activity that is known to result in a significant increase in ambient noise levels or increase vibration shall notify the HSE manager in advance. To minimise noise, equipment specification will include (for example):

- Stringent equipment sound power levels (the noise level at full load shall not exceed 85dBA when measured at three feet from the equipment surface in any direction)
- Acoustic cladding, enclosures, and barriers

Any noisy or malfunctioning vehicles and equipment shall be repaired in a timely manner or removed from the site as early as possible. No equipment or machinery (to include pneumatic drills, construction vehicles, generators etc) shall operate on or adjacent to the construction site before 07.00 hours on weekdays and 09.00 hours on Saturdays nor after 19.00 hours on weekday and 13.00 on Saturdays, nor at any time on Sunday.
Regarding construction activities, reference will be made to BS5228: Noise control on construction and open sites, which offers detailed guidance on the control of noise and vibration from demolition and construction activities. Various mitigation measures can be considered and applied during the construction of the proposed development, such as:

- limiting the hours during which site activities are likely to create high levels of noise are permitted, e.g., soil excavations.
- monitoring typical levels of noise during critical periods and at sensitive locations.

Furthermore, it is envisaged that a variety of practicable noise control measures will be employed. These may include:

- selection of plant with low inherent potential for generation of noise.
- erection of barriers as necessary around items such as generators or high duty compressors, and siting of noisy plant as far away from sensitive properties as permitted by site constraints.

WEC engage in local consultation in respect of any noise sensitive location within 30 meters of the development as approved prior to construction activity commencing on site. Locals will be engaged via verbal consultation along with letter box drops. Locals will be furnished with the below information.

- Name and Contact details of WEC Manager responsible for managing noise complaints.

- Updates and Schedules outlining timeframes for specific works.
- Hours of Operation – including any schedule times for the use of equipment likely to be the source of significant noise.

9.4 Land, Soil, Hydrogeology and Drainage

Site management will ensure the following control measures are put in place.

- BCEI will acquire a specialist archaeologist and Arborist where required.
- A methodology and control measures will be taken to prevent the release of silt and pollution during the construction stage such as a silt fence etc.
- To minimise the alteration of the site topography, the site to be graded to promote run off and reduce ponding of water.
- To prevent contamination of surface water and ground water, uncontrolled surface water runoff from soil stockpiles will be prevented using bunds, mounds and drainage where required.
- Refuelling and minor servicing of plant and machinery to be confined to designated and suitable protected areas.
- Major servicing of plant and machinery to be conducted off site to prevent any contamination of surface and ground water.
- All oils, solvents and paints used during construction to be stored within temporary bunded area.
- Excavated soil will be separated into topsoil and subsoil stockpiles to prevent loss of fertility of topsoil.
- WEC will engage with Irish Water and South Dublin County Council should there be a requirement to drain into the public storm water system. There will be no discharge into open channels or drainage systems without written agreements in place with South Dublin County Council.

9.5 Harmful Materials

Harmful materials shall be stored on site for use in connection with the construction works only. These materials shall be stored in a controlled manner.

This may include paints and specialist floor coatings, and these shall be delivered on a JIT basis and stored in protected containers during phase two of the project.

Where on site fuelling facilities are used there shall be a bunded filling area using a double bunded steel tank at a minimum, or mobile bowsers shall also be used. An emergency spill kit shall be retained on site and located adjacent to any fuel storage.

No fuels will be stored near to the adjacent ditches or to the attenuation pond constructed as part of the EDCDUB04 works.

10. WASTE MANAGEMENT

- The site boundary will be fenced using secure heras fencing and be maintained to ensure no unauthorised placement of materials or dumping. There will also be 24-hour security patrolling the site. No additional soil and stone shall be placed on site until a Construction and Demolition Waste Management Plan and agreed with SDCC for the project. Possible Stone to be imported will sourced from a reputable supplier.
- Construction and Demolition Waste, arising from the development of the site, will be kept to a minimum, segregated where appropriate, and disposed/recovered at a waste facility authorized under the Waste Management (Facility Permit and Registration) Regulations 2007, as amended, to accept the categories of waste. This authorised waste facility shall have the required annual capacity to receive the categories of waste.
- All Construction and Demolition Waste, arising from the development of the site. Shall be transported by a waste collection permit holder authorised by the National Waste Collection Permit Office, Áras an Chontae, Charleville Road, Tullamore, Co. Offaly.
- Chain of custody documents such as waste/recovery records, including waste collector dockets/invoices and weighbridge dockets, shall be maintained on site and made available, at all reasonable times, for inspection by Authorised Persons as appointed under the Waste Management Act 1996, as amended.
- A waste Transfer Form shall accompany the transportation of all hazardous waste arising from the works, in accordance with the European Communities (Shipment of Hazardous Waste Exclusively within Ireland) Regulations 2011.

Onsite controls will include the following:

- Separate skips shall be provided for different waste streams
- All waste skips will be clearly marked with the waste type contained for better segregation of these
- Waste removal providers will have the required waste transfer and disposal permits which will be monitored by WEC. Documentation will be keprt on file.
- All domestic skips must be of closed type to prevent access to vermin
- No eating is permitted on site or in the car parking area. Eating is only permitted in the canteen area
- All waste, wrapping, debris etc. must be placed into skips as soon as they are generated, and cannot be stockpiled for disposal at a later date.
- The concrete wash out area is to be used for cleaning the chutes of all concrete trucks. The wash out area must be clearly marked and warning signs to be provided for all users
- Suppliers are to be contacted prior to orders to assess whether waste packaging and pallets can be returned

- Waste oils, lubricant cans and cartridges must be stored in the stores and sent to the designated Waste Management Company at the completion of the project
- Safety Data Sheet documentation must be in place for all chemicals on site with details of the disposal arrangements
- Copies of wate disposal/recovery records, including waste collector dockets/invoices and weighbridge dockets, will be maintained on site and made available for inspection.

11. PROGRAMME

WEC will develop a project specific programme for the Procurement, Construction and Testing of the project.

WEC recognises its responsibility for the provision of an experienced Project Management Team and all associated equipment required to deliver the project.

We would produce:

- A Compliant Programme – based on agreed access dates
- A Schedule of Milestones based upon detailed design, procurement, and construction requirements.
- An associated BIM production program
- OSM production program
- Critical Dates Schedule

The project schedule underpins our execution plan and drives all activities to meet the specified dates as required.

Mobilization to site will involve a management team that is totally conversant with the project, the schedule and with the execution plan.

Constant monitoring of the execution plan and the project schedule by the management team will provide the necessary impetus to deliver the project on schedule with zero defects and zero accidents and injuries. The execution plan by necessity follows the functional specifications and key dates for delivery; there is no intent to duplicate the specifications herein. It is a given that all buildings and services will comply in all manners with the approved drawings and the functional specifications.

12. DESIGN ENGINEERING AND PERMITTING (IF APPLICABLE)

WEC will engage with Client Design team to ensure all Design Information and Permits are in place to ensure we achieve the project schedule dates.

WEC recognises the importance of early engagement with the Architects and Engineers, the key benefits to the project being.

- Achieving the project Schedule successfully

- Early Risk identification & mitigation
- Collaborative Prioritization of the Workflow
- Early Issuance of Purchase orders for long lead items
- Interface Identification & Management
- Implementing Constructability though the Design process
- Increased Certainty of Cost & Quality

13. DESIGN CO-ORDINATION & CONSTRUCTION LIAISON

Engineering and design are the responsibility of the Client. We will participate on an early engagement basis when and where required. Details and level of engagement to be agreed after award.

14. KNOWLEDGE TRANSFER

WEC will incorporate our Lessons Learnt and best practices from similar projects delivered, capturing the wealth of knowledge generated during the course of these contracts for the benefit of a successful outcome. WEC are aware of our commitment to ensure excellence in respect of every facet of our business operations and in the service, we provide to our clients. In undertaking this journey WEC is determined to ensure that the knowledge and experience which resides within the Company is used to develop a consistent and collaborative approach to project delivery excellence.

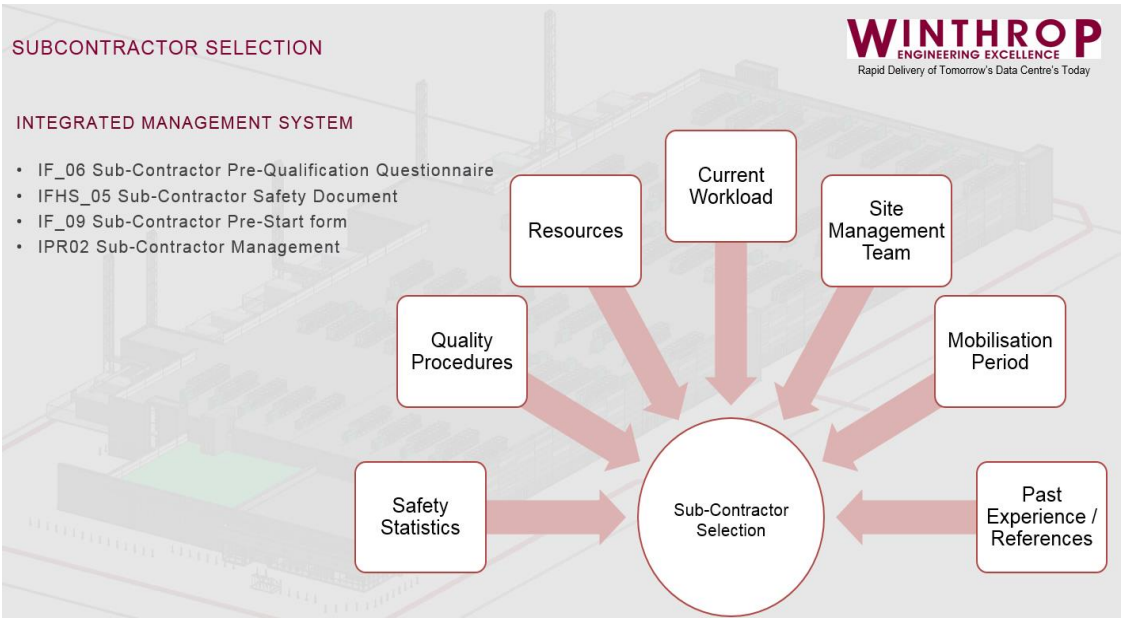
All WEC's Project Execution Plans incorporate a Knowledge Sharing module and we outline below the knowledge we intend to capture during the course of the contract:

- Identification of a knowledge sharing officer on the project
- Measures to avoid the mistakes that have occurred in past projects.
- The establishment of objectives and expectations for information capturing and dissemination
- Means of ensuring that relevant lessons learned are captured and available for wider benefit of the Company and staff and also to share with The Client on an ongoing basis.
- The provision of contract information and experience for a full BIM operated contract up to LOD levels as defined by the contract.

All WEC's staff are encouraged to actively participate in this initiative by recording and sharing their personal experiences with the Company for the benefit of their colleagues and the future generation of the contractor's professionals.

15. PROCUREMENT

The procurement team will be responsible for material and equipment ordering, expediting deliverables and to support engineering for review and incorporation into the project drawings and specifications. The vendors will be selected based on the Clients AML (Approved Manufacturer List).



The procurement team shall perform the following activities:

- Preparation of request for quotation for all equipment and material.
- Responses to vendors' and bidders' queries
- Issue of bid bulletins as appropriate
- Clarifications and / or clarification meetings with Vendors
- Preparation of Purchase Orders and variations / amendments
- Desk and Field expediting including expediting of Vendor drawings and data
- Coordination with QA / QC Engineering for Inspection, including performance test witnessing where applicable
- Management and coordination of freight forwarding
- Material receipt at the jobsite
- Administration of invoices, performance bonds, insurance, and warranties
- Management of Inspection Agencies as applicable.
- Expediting and collating of Vendor final documentation, QA / QC documentation, maintenance manuals and recommended spare parts.

15.1 Procurement Strategy

The Project Procurement Strategy and the procurement plan will be finalised immediately after award in order to achieve the following objectives:

- Adequacy of equipment and material deliveries to meet the constraints of the construction schedule.
- Worldwide equipment / material sourcing to achieve the best possible schedule and cost effectiveness from reputable suppliers including the local market.
- Early delivery of material for preparatory works.
- Evaluating the requirements of offsite Laydown requirements on deliveries

The Procurement Manager will prepare the procurement plan ensuring priority to equipment and material for which procurement activities are on the critical path. The plan will identify the planned date for floating the enquiry, the planned date for Purchase Order Placement and delivery.

Bids will be adjudicated with an evaluation / clarification exercise which will result in a recommendation for purchase. Upon management approval, a purchase order will be prepared and sent to the bidder for acceptance.

For all the Critical Engineered Packages, a kick-off meeting will be conducted attended by the Project Manager, the Engineering Manager, and discipline Engineer. Participants will re-emphasise to the Supplier the specific needs for the Order and the criticality of the package to meet the construction schedule. The supplier will confirm that their understand the criticality and will ensure the compliance to the milestones for the Design, Procurement, Fabrication, Inspection, Test and Delivery schedule.

Inspection of equipment and materials will be carried out as per the approved Inspection Test Plan (ITP) and / or any approved suppliers Quality Control Plan by the projects personnel or approved Third Party Inspection Agencies. The project inspection coordinator will control and approve all inspection reports issued by the field inspectors.

16. INTERFACE MANAGEMENT

On a project of this complexity, it will be essential to maintain close co-ordination between WEC and numerous stakeholder including the Client, Local Authorities, design team Client's Representative, Construction team, and any sub-contractors engaged in the project.

WEC has designated that ALL communications shall pass through the WEC Project Manager in order to have a single point of contact for all parties.

An interface management plan will be developed in consultation with the Client's Representative and submitted for approval following contract award.

17. RISK MANAGEMENT

At the commencement WEC will schedule a risk review and will concentrate on the areas of schedule risks, safety risks in design and construction, procurement/delivery risks, and commercial/cost risks.

The risk register developed during the tender phase will be developed further and will rank the risk in terms of impact on the project. Regular risk reviews will be held to monitor and control the applicable risks with all Stakeholders

The Critical Date Schedule will be tracked in conjunction with risk management to highlight any issues and any mitigation required.

18. COMMERCIAL MANAGEMENT

The Commercial Management Module of WEC's Integrated Management System comprises of Cost Control and Value Management.

The Client has a specific process for Commercial management based on the submitted Tender BoQs, these processes will be integrated into our commercial managements plans for the project.

18.1 Cost Control

WEC's Programme Manager shall ensure that a Cost Control Sheet (CCS) is compiled, monitored, and reviewed at scheduled weekly Commercial Meetings. The CCS shall be prepared in a suitable format for ease of package award, material procurement and management.

The CCS is to be initially compiled using information obtained from the Estimators during the Tender Handover Meeting. It will assist in controlling the cost of the contract within the limits of a predetermined tender sum.

WEC's Programme Manager and his team will then prepare their Target/Adjusted Tender, and this will be monitored as packages are awarded. The CCS also serves to create a best estimate of the current financial position and a forecast of the Final Account. This information is beneficial when preparing the overall Cost Report, turnover projections, and cash flow reports.

Control is exercised throughout the construction phases until final completion of the contract. Progress against the CCS will be monitored on an ongoing basis and updated to form part of the regular Cost Reports produced by the Quantity Surveyor for review at the Internal Team Meetings.

The CCS Cost Report is central to this entire Cost Control process and will include:

- Progress on the sub-letting status of each work package
- Progress on the procurement of materials
- Labour requirements and cost management
- A summary report on the anticipated profit or loss on each work package

- Details of any Post tender budget adjustments
- Programme – extension of time issue
- Internal valuation and payment status
- Work in progress
- Turnover and cash flow forecasting
- General Requirement expenditure and analysis
- Commentary on subcontractor's performances
- An update on all major commercial issues

The Cost Report is developed from the initial CCS compiled by the Quantity Surveyor using the information supplied by the Estimator during the Tender Handover Meeting and updated thereafter. Appropriate elements of the Cost Report shall be discussed at the Internal Team Meetings.

The importance of establishing cost budgets in respect of all major works is crucial to the overall effort to successfully manage and control cost.

Cost Control is achieved by implementing procedures which ensure that the following key processes are monitored regularly and consistently throughout the project:

- **General Requirements** - monitored by comparing value (obtained from tender General Requirements), budget (obtained from the CCS) and cost (obtained from Contracts Manager and the accounts of certain sub-contractors).
- **Labour Cost** - monitored by comparing value (obtained from the tender or measurement of the contract work), budget (obtained from the CCS) and cost (obtained from Contracts Manager / Accounts /wages sheets and the effective calculation of Spent/earned ratios).
- **Subcontracting Costs** – monitored by comparing value (measurement of sub-contract work), budget (obtained from the CCS) with cost (obtained from the subcontractor's accounts/final account)
- **Materials Cost** - monitored by comparing value (obtained from tender and measurement of the contract work), budget (obtained from the CCS) and cost (obtained from Purchasing / Contracts Manager / invoices)

The following good practices will be implemented in respect of the procurement and management of materials:

- ✓ The Commercial Manager shall complete Contract Materials Schedule in conjunction with the heads of engineering and issue to the Purchasing Department in sufficient time to enable the Department to secure a compliant offering.
- ✓ Specialist or long lead materials require particular attention. These will be identified and prioritised by Engineering on commencement of the project.
- ✓ WEC will ensure that procedures in respect of the delivery and verification of the quantity and quality of materials are fully implemented and regularly monitored. Materials and delivery dockets must be checked by the person so authorised and

defined in the Project Quality Plan. Materials shall not be accepted until they are so checked.

- ✓ The contractor is committed to the Implementation of procedures which minimize materials wastage.
- ✓ WEC will obtain copies of all invoices to assist in verifying that materials were actually received and to assist in the cost certification process particularly in respect of Contract works and any potential variations.
- ✓ WEC is committed to the compilation of materials wastage reports on a monthly basis highlighting wastage relevant to primary, high costs/value materials to ensure waste is managed effectively and kept to a minimum.

18.2 Value Management

Internal Valuation/ Management Accounts

The Commercial Manager shall prepare a detailed review of the CCS at prescribed periods of the project in accordance with the contractor management procedures. The internal valuation then forms part of the Company's consolidated Management Accounts.

A CCS Reconciliation Statement shall be completed by the Commercial Manager in conjunction with each internal valuation and will be issued to the Programme Manager.

The Commercial Manager shall prepare turnover, profit, and cash flow forecasts in conjunction with the internal CCS review and as and when required by the Company. These forecasts are again consolidated to form part of a rolling twelve month look ahead.

The Commercial Manager shall prepare a monthly cash flow income and expenditure forecast.

External Valuation /Application for Payment

The Commercial Manager shall prepare detailed monthly account involve ensuring conformance with the overall contract for payment.

19. CHANGE MANAGEMENT

The WEC Project Director and Commercial Manager shall ensure that all staff members are made aware and fully understand and appreciate the Management of Change process that applies on this contract.

20. PRE-CONSTRUCTION,MOBILISATION AND CONSTRUCTION

20.1 Aims for pre-construction and mobilisation activities

- To mobilise the site efficiently to minimise disruption, provide safe access, and adequate security is provided to keep the site and any valuable resources secure.

20.2 How the works will be managed to deliver the aims?

20.2.1 Pre-construction communications and ongoing communication

- Pre-Construction meetings would be held to align all stakeholders to the Site-Specific Scope of works for each project
- All Critical Milestones will be listed and agreed at these meetings
- Actions lists for liaison with 3rd party suppliers and service agreements partners will be listed for engagement and their alignment with the project specific milestones

20.2.2 The Pre-Construction and Mobilisation Works

- These activities would commence with the setting out of secure and non-secure areas
- Clear Signage and maps will be displayed so all Construction and Client Staff understand these areas.

It is also understood that as the project develops these Secure and non-Secure areas are likely to change and these changes will be communicated to all staff on the complex.

21. CONSTRUCTION MANAGEMENT

The construction team proposed will have significant experience in Civils works and datacentre construction. The project requirements will be reviewed in their entirety, and this implementation plan will address each area of responsibility for the project. The project team are committed to delivering a project that exceeds the requirements set forth in the tender documents and that exceeds expectations in the area of HSE. As a minimum, the following objectives will be achieved:

- Complete the project on schedule and meet all schedule milestones
- Exceed the Client's HSE goals
- Achieve an Incident and Injury Free environment for all our workers
- Meet and/or exceed all technical performance objectives
- Achieve total satisfaction for both the client and the owner in the services of WEC
- Comply with all contract and regulatory requirements

21.1 Construction Structure

The Project Director will have direct line reports from discipline project managers on Civil Structural and Architectural works. Project Mangers for Mechanical and Electrical elements of works will also be assigned. These PM's have a demonstrable track record in the industry with relevant project experience. In conjunction with the Project Director these PM's will be directly responsible for safety of all personnel under the project umbrella.

Each project manager will have a dedicated construction manager who will have the relevant expertise in similar projects.

WEC will comply with the National Construction Industry Federation regulations and in all areas will utilize a Method Statement, Safe Plan of Action (SPA), and Permit to Work (PTW) system (associated with Commissioning and Finishing activities). All permits to work shall be secured from the Client Representative prior to commencement of any associated activity.

Method statements will describe the work to be performed, materials and tools and equipment to be used, risk and hazard identification and remediation, and the actual work methods and techniques to be used. Drawings will be attached to the method statement for reference. Methods statements will cover extensive pieces of work and can cover the entire duration of the project.

SPAs (Safe Plan of Action) will follow the method statement layout describing the work and tools and risks but will be prepared daily for each work crew. The SPA will have input from crew members during the daily toolbox talk and each member will sign the SPA before starting work.

The SPA is a living document and must be changed during the day if the crew's activities change. All new activity – no matter the duration – must be addressed in a SPA. Any visitor to the work area must first read and sign the SPA before entering the work area.

A permit-to-work will be issued by a skilled construction safety engineer jointly with the client after having reviewed the drawing, the method statement, and the SPA. Most PTWs can be issued for up to a 30-day period if the work is repetitive but there must be a new PTW for each new piece of work.

On site, the method statement, SPA, and PTW will be prominently displayed and ready for inspection and review by any interested party.

21.2 Extent of Works

The construction works will involve an indicative sequence of works, with a brief description outlined below. WEC will clearly outline works which impact public spaces and thoroughfares within this Construction Management Plan that shall be submitted as part of the planning process.

WEC will ensure the development shall be carried out and completed in accordance with the plans and particulars lodged with the planning application, as amended by the further plans and particulars submitted on the 29th of August 2019. Construction will be carried out in accordance with the Construction Drawings as produced by the project designers.

The description of the development to be constructed is outlined in Section 3 of this document. To achieve the construction of the project the below processes will be undertaken.

- Preconstruction Items.
- Setting up and Securing Site.
- Construction Works.

It is envisaged that works will be carried out on ESB substation, Dub4.0 and yards simultaneously.

21.3 Preconstruction Items.

Prior to commencing on site, the below measures will be in place.

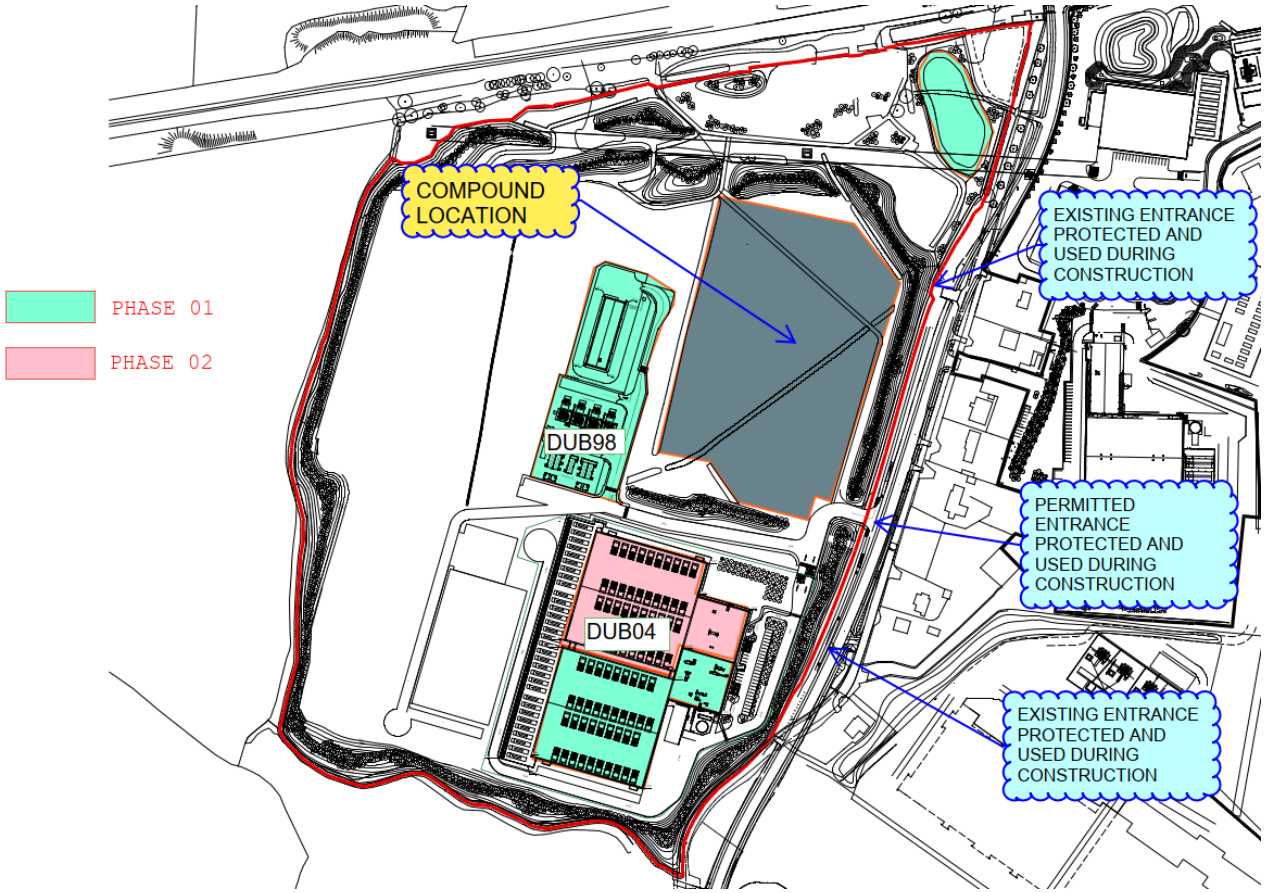
- Completion of the soil enabling works for the building footprints and roads will have been completed in line with planning reference no. SD19A/004.
- A Commencement Notice will have been applied for in accordance with the Building Control Act and will have been lodged with Dublin County Council.
- AF1 will have been lodged with the Health and Safety Authority by the Project Supervisor Design Process (PSDP).
- AF2 will have been lodged with the Health and Safety Authority by the Project Supervisor Construction Stage (PSCS). This form will be posted up on site.
- Issue for Construction Drawings will be in place, to ensure the development shall be carried out and completed in accordance with the plans and particulars lodged with the planning application, as amended by the further plans and particulars submitted on the 29th of August 2019. WEC will undertake to construct works in accordance with the planning conditions and construction drawings.
- During Construction and or demolition phase of the development, Best Practicable Means will be employed to minimise air blown dust emitted from the site. This shall include covering skips and slack-heaps, netting of scaffolding, daily washing down of pavements or other public areas, and any other precautions necessary to prevent dust nuisances, WEC will comply with British Standard B.S. 5228 Code of Practise Noise Control on Construction and Open sites and British Standard B.S. 6187 Code of Practise for Demolition.
- WEC will engage with Irish Water and South Dublin County Council in relation to access of water and drainage for both Temporary and Permanent Works. Connections will comply with the requirements of the planning authority for such works. Watermains and storm water pipes shall be laid in accordance with the Construction Drawings. The drawings and specifications will be compliant with planning constraints. All development shall be carried out in compliance with Irish Water Standards codes and practises in relation to water and wastewater infrastructure.
- WEC will engage with South Dublin County Council in relation to the discharge of Temporary and Permanent foul sewage and soiled water. Construction Drawings and specifications compliant with planning conditions will be produced for the project, which WEC will contract. Liaison will be carried out with the local authority in relation to downstream connections.
- WEC will engage with South Dublin County Council in relation to Permanent and Temporary storm water discharge to the existing public system. Only Clean, uncontaminated storm water will be discharged to the drainage system. This will be aided by identifying attenuation pond and interceptor tank locations as per the construction drawings. The drawings and specifications will be compliant with planning constraints.

- The water supply and drainage infrastructure shall comply with the requirements of Irish Water.
- There will be complete separation of the foul and surface water drainage systems, both in respect of installation and use.
- All works for this development shall comply with the requirements of the Greater Dublin Regional Code of Practice for Drainage Works.
- The construction of the development will be managed in accordance with this Construction Management Plan. This Document will be submitted to, and agreed in writing with, the planning authority prior to commencement of the development. This plan gives details of intended work practises for the development, including hours of working, noise management measures, dust minimisation and off-site disposal of construction/demolition waste.
- WEC will implement the recommendations of the archaeological report prepared by AMS-CRDS submitted as further information received by the planning authority on 29th August 2019 relating to further test trenches. AMS have been employed as the project licenced archaeological monitoring specialists for all sub-surface works carried out within the development. WEC will ensure that AMS are present to monitor the removal of topsoil for operations including, excavation of foundation trenches, services, and access roadways, associated with the development. During the project AMS will produce and submit reports describing the results of the Archaeological monitoring to the planning authority and the Department of Culture, Heritage and the Gaeltacht within six weeks following the completion of monitoring. Should AMS discover material of archaeological interest during the monitoring, WEC will facilitate the archaeologist in recording material. WEC will also be prepared to be advised by the Department about the appropriate course of action, should archaeological material be discovered.
- Prior to any disturbance, or any pre-demolition works commencing on the disused farm buildings, a pre-demolition survey for bats will be undertaken by an ecologist with appropriate qualifications, training and experience in bat surveys. Scott Cawley Ltd. Have been employed by the Client to undertake such works. The bat survey shall be undertaken in accordance with provisions of the “Bat Mitigation Guidelines for Ireland- Irish Wildlife Manuals Number 25, issued by the Department of the Environment, Heritage and Local Government in 2006 or any document that might supersede the same. Should Bats be found, contact will be made with the National Parks and Wildlife Service to seek advice regarding the necessity of a bat derogation licence before works to demolish can proceed. Similarly, prior to any removal of trees or hedgerows, a bat expert shall be o site to address any bats inadvertently found during felling.
- Scott Cawley Ltd. have been employed as the project ecologist and have the necessary experience in habitat management. Bat protection issues shall be engaged to oversee the protection of biodiversity both during construction and for a monitoring period of five years following the completion of the proposed development. Annual reports shall be submitted to the planning authority.
- WEC will implement the landscaping construction drawings which are in line with the landscaping proposals submitted to the planning authority on the 5th of February 2019. Planting will be carried out within the first planting season following substantial completion of external construction works. All planting will be adequately protected from damage until established. Any plants which die, are removed, or become seriously damaged or diseased, within a period of five years from the completion of the development shall be replaced within the next planting season with others similar size and species, unless otherwise agreed in writing with the planning authority.
- WEC will contact Irish Aviation Authority (IAA) 30 days in advance of crane operations. Lift Plans will be submitted, and coordination will be advanced with Air Corps Traffic Services especially in relation to the nearby Casement Aerodrome. The Authorities will be

notified when craneage is to be used 45m above ground level. WEC will provide and discuss lift plans with the authorities and methods to be implemented whilst lifting operations are taking place.

- A Traffic Management Plan will be produced and lodged with the local Authority.
- WEC will engage with ESB in relation to protection measures to be put in place for the 110kv overhead powerlines to the north of the site.
- A Ground Penetration Radar Survey will be carried out to determine the presence of underground services. WEC will also obtain Utility Providers drawings.

21.4 Setting up and Securing the Site.



Compound Location

In the initial stages of construction, it will be necessary to set up site welfare facilities. See above figure for the proposed location of the site offices and carpark area. The location of the offices is located to the Northeast of the site.

The site boundary will be secured with heras fencing with green debris netting attached. The fencing will be tied and secured to driven posts.

WEC with engage Irish Water for temporary water and sewer connection for the proposed compound area. It is envisaged that clean storm water will be discharged into the attenuation

pond area to the northeast of the south. The discharge from the pond will be via agreed outlet connection as already provided by South Dublin County Council on site.

WEC will engage with ESB in relation to temporary power supply to be provided for the compound area.

Compound Layout

The compound will be constructed in the below sequence.

- Existing Hedgerows will have protection hoarding installed at 1m offset as per the above layout figure.
- A site entrance to the R120 will be constructed. This will be constructed in the location where the permanent entrance as per planning is to be constructed later. The entrance will receive a concrete protection slab to ensure that there is protection to existing services.
- The topsoil will be stripped with the Project Archaeologist present monitoring the ground. WEC will aid the Archaeologist in recording any potential findings. The topsoil material will be stored temporarily for later use in landscaped areas.
- The ground will be brought down to formation level and services will be installed.
- Pads for the compound messes will be excavated and concrete poured in the same and allowed to set.

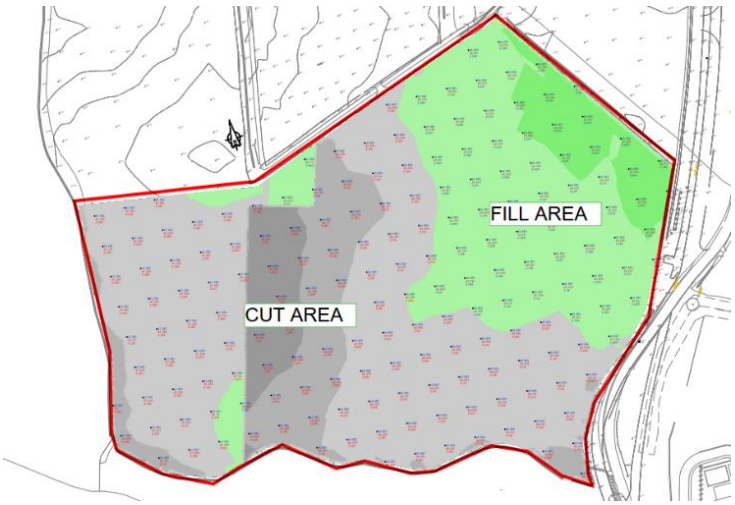
- Subbase material will them be laid and compacted in position. Furniture, such as railing signs, micro pillars and lighting standards will be installed.
- The Compound accommodation will be installed via crane. A lift plan will be in place for these works. The offices will then be fitted for use.
- Tar will be installed, compacted and white lining and signage will be installed where required.
- Perimeter fencing/hoarding will then be erected to the perimeter of the compound and carpark.

The carpark and office areas will be delineated and secured from the general working site. Security will be located within and all personnel working on site will report to this area in a controlled fashion. There will be parking for circa 300 vehicles to allow for peak demand. The Office site compound area will consist of Office Accommodation, Hot Food Canteen, Safety Briefing Rooms, Toilet Facilities and Drying Rooms. There will be automated turnstiles that will control persons inducted only to enter the works are.

WEC will be responsible for the security of the site and the following measures will be in place.

- Operate a Site Induction Process for all site staff
- Ensure all site staff shall have current ‘Safe Pass’ cards and CSCS plant operator cards where relevant
- Install adequate site hoarding to the site boundary
- Always maintain Site Security staff
- Install access security in the form of turn-styles and gates for staff
- Separate public pedestrian access from construction vehicular access
- Ensure restricted access is maintained to the works and prevent access to unauthorised persons
- Provide appropriate site welfare and personnel accommodation including canteens on site.
- Ensure that any planned activities do not adversely impact on adjacent residences
- Install a CCTV camera system for security to continuously monitor the site.

21.5 Construction Works:



Previous Enabling Works carried out.

Soil Stabilization works have been previously carried out as part of Enabling works for the footprint of the Dub04 Buildings, associated yards, and buildings. Heras Fencing is already placed around the site. It is envisaged that the

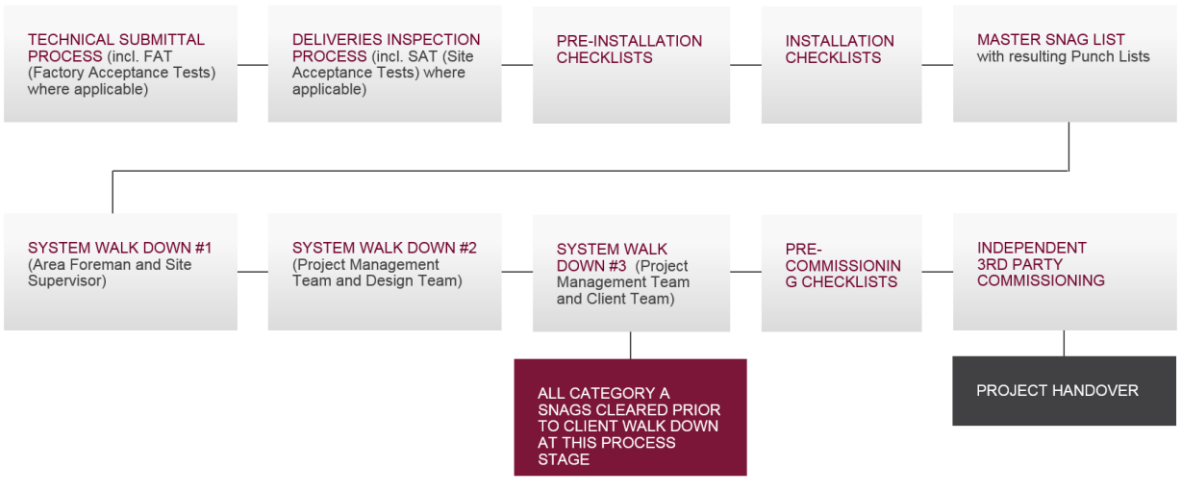
Works will be carried out as per the below sequence. There will be an overriding programme produced with works being carried out in agreed sequences, commencing with Compound set up, followed by Sub Station (Dub 98) and Dub04 phase 1 works and concluding with Dub04 phase 2 works.

- Storm and Sewer Drainage and manholes will be constructed to designed outlets with arisings being utilised to form subsoil berms around the perimeter of the site. The association attenuation is to the northeast of the site will also be constructed.
- Utility Ducting for power and communication services will be installed.
- Foundation pads will be excavated, and concrete poured and allowed to set.
- Access Roads and Footpaths will be constructed.
- The prefabricated Structural columns, beams and bracing will be installed followed by the required cladding. Cranage will be utilised to install these elements. Dublin Airport Authority and Baldonnell Aerodrome Air Traffic Control will be notified of these works in advance.
- The internal underground services will be installed in the buildings.
- The concrete floors will be prepared, poured, and allowed to cure.
- Electrical and Mechanical Plant will be installed along with associated ducting, cables and first fixing items.
- Internal slabs and second fixing items will then be completed.
- Internal and External finishings will be completed.
- Commissioning will be completed.

22. QUALITY IN CONSTRUCTION

WEC's Team shall develop its project specific strategy for achieving zero defects, specifically identifying the issues which are likely to impact or hinder our efforts to succeed

ZERO SNAGS PROCESS CHART



The following practices will be implemented and rigorously enforced to ensure the quality and excellence of our work:

- Prioritise quality and ensure that a strong quality culture prevails within the contract team.
- Prepare a plan which highlights the key quality control issues and ensure that the team members fully understand the quality plan and their respective roles in successfully delivering the plan.
- Establish the desired outcome from the perspective of the Employer, the Design Consultants, the Architect, and other key stakeholders.
- Ensure that all specifications, codes of practice and specific design requirements are clearly established. Utilise mock-ups and samples to facilitate this objective.
- Ensure that key material requirements are identified and place particular focus on quality, suitability, fitness for purpose, availability, ordering, delivery, and storage.
- Prepare inspection, test plan, and sign off arrangements.
- Maintain records which ensure full traceability.
- Ensure that subcontractors are appointed on the basis of the quality of their work.
- Engage in a continuous programme of education. Learn from our mistakes and share relevant information to avoid reoccurrence.
- Operate a rigorous and challenging handover protocol which includes:

- The operation of a Defects Management System with clear allocation of ownership and sign off procedures.
- The implementation of a Maintenance Period Management Plan
- Engagement with the Employer/Design Team to agree the protocol for sign off the completed work.
- The production of handover documentation.
- Facilities management arrangements, if applicable.
- Post contract procedures to ensure timely issue of Maintenance Certificate / Final Taking over Certificate and release of retention.
- Ensure the total buy in of all subcontractors in respect of the foregoing.

23. SITE PROCEDURES

23.1 Weekly Progress Meetings

The Construction Manager will chair a weekly progress meeting to be attended by The Clients Rep. WEC will provide representatives for construction, project control, procurement, for these meetings. All open items from previous meetings and open RFIs will be a priority on the agenda. Progress will be a major item on every agenda and updated current schedules will be distributed prior to the meeting. Thirty and sixty-day schedules will be discussed as well. Any material/procurement and engineering issues will be discussed. Minutes will be kept and disseminated immediately following the close of the meeting.

23.2 Toolbox Meetings

Every construction crew will start the day with a Toolbox meeting in which the day's activities, risks and hazards will be discussed by the entire crew. At the end of the meeting, a Safe Plan of Action (SPA) will be prepared and signed by all crew members. Any visitors to the work site must first read and sign the SPA before entering the site.

23.3 Site-Wide Safety Meeting

There will a site-wide safety meeting once a week with Client Ops participation invited. The Construction Manager will co-host these meetings with the HSE Manager. These Meetings are invaluable and shall be used to reinforce the importance of safety in all aspects of our lives.

24. MANAGEMENT OF SUB-CONTRACTORS

24.1 Procurement of Sub-Contractors

The sub-contracting process used by WEC seeks to ensure that the work is carried out in accordance with the requirements of the Conditions of the Main contract.

WEC's team will implement a comprehensive subcontractor procurement strategy. As part of its strategy, the team shall:

- Identify the key subcontract packages and their respective lead-in durations. Utilise the standard Company Procurement Schedule to identify the key milestone dates relevant to the award process.
- Scope the packages to ensure a completeness of award and to minimize split responsibility with other subcontract packages.
- Develop and agree a rigorous subcontractor selection criterion and any particular tendering option worthy of consideration. For example, negotiation with a key partner. The criteria for selection of sub-contractors must not be limited to cost and must include issues such as co-operation, management structure, capacity to bond, health and safety policy, claims policy, current workload, quality, snagging policy, ability to provide attendances, cleaning policy etc. The Project Director shall make the final decision should any dispute arise regarding the appointment of a particular sub-contractor.

- Specify WEC's expectations of the subcontractor, particularly in terms of:
- Health and Safety Regime
- Scope, quality, and specification of work.
- Programme obligations.
- Contractual obligations
- Design responsibility
- Insurances, Bonds, Guarantees, Warranties, Certificates of Compliance.
- Change Management/Conditions Precedent/Timing of notifications
- Statutory requirements
- Cleaning/Waste Management
- Sub-contractors Site Management.
- Maintenance of Records
- Payment arrangements/Submission of progress applications.
- Contra charge procedures
- Attendances. Endeavour to ensure that each sub-contractor provides its own attendance, (labour and plant) whenever possible.
- Ensure that daily/weekly reports contain a status report in respect of progress on the procurement/ award of each subcontract package.

- Ensure that a formal Pre-Appointment Meeting is convened with all subcontractors This meeting should serve to confirm the Contractors expectations of the subcontractor and to confirm the agreement of the parties to the conditions discussed during procurement. It also serves to tidy up loose ends and eliminate the scope for future claims. The minutes of the Pre-Appointment Meeting must form part of the formal subcontract documentation and take precedence over any conflicting documents
- Provisions contained within the standard form of subcontract or any terms and conditions appended to the subcontractors.
- Insist on the attendance of the subcontractor's site manager/foreman at all Pre-Appointment Meetings thereby ensuring his familiarity with the subcontractor's obligations vis-à-vis attendances, cleaning, unloading etc.
- Ensure that a formal Subcontract Agreement is executed in respect of all subcontract packages. When appropriate, the subcontract shall be amended to reflect the Conditions of the Main Contract. Occasionally a situation arises whereby the main contract conditions are not agreed when sub-contract packages are being awarded. In such circumstances ensure that the main principles governing the sub-contract are identified, for example, by clearly stating that the terms and conditions of the standard sub-contract agreement shall apply subject to some minor adjustments to comply with the terms and conditions of the Main Contract.
- Ensure that subcontractors comply with the terms and conditions of the main Contract.
- It is now commonplace for Clients and Design Teams to impose certain subcontractors on the Contractor and award them domestic status. It is vitally important to establish that such subcontractors are prepared to fully comply with the terms and conditions of the Main Contract in so far as they relate to the subcontract.
- Obtain a fully resourced sub-contractors programme in respect of all substantial sub-contract packages. The logic must be clear and unambiguous, and the Contract Team need to be alert to the possibility that a sub-contractor may under resource his programme in an effort to support subsequent claims for delay and extension of time.
- Seek to broaden the WEC sub-contractor base and to provide more feedback in respect of the performance of sub-contractors particularly those who are exceptionally good or exceptionally bad. The Contract Reporting mechanism employed by WEC serves as a useful means of providing feedback on subcontractors. Endeavour to avoid a situation whereby better performing sub-contractors are over stretched thereby reducing their effectiveness on the contracts on which they operate.
- Assess the risk and exposure in the event of non-performance by a subcontractor. When any doubt exists the Project Director in charge will be consulted and appropriate action taken.

25. LOGISTICS

We envisage a Temporary Site Setup for the duration of the works for Material & Component Storage but also to facilitate site specific pre-fabrication within a controlled zone thus removing as much construction works as possible to outside the Live environments.

A secure manned access and egress point will be created to ensure security and control of site vehicle & staff movement.

A Fire access route shall be maintained through the project

26. INDIVIDUAL SYSTEM CONSTRUCTION

26.1 Architectural

Upon contract award WEC Architectural team will engage with Client Team, Design team and wider construction team, through a series of workshops to finalise the works designs so as to enable procurement to commence and to align the program.

The PM will also identify any work scopes that be delivered via OSM to minimise install time and trades having to be on the jobsite.

Responsibilities of the WEC Architectural lead will be as follows:

- Develop the Procurement and submittal schedule.
- Managing and monitoring the overall Architectural schedule.
- Ensuring all submittals are submitted on time and any comments are responded to in a timely manner in order to meet the overall schedule
- Liaise with WEC H&S and QA departments to ensure compliance with all WEC system
- Ensure the final co-ordinated services drawings and mini programs are developed, approved, and delivered for each of the works sections
- Early procurement of all, sub-contractors, plant, and equipment to guarantee delivery on time and in line with the programme.
- Ensuring builders work drawings are prepared and approved to suit construction.
- Resolving services queries in time to avoid disruption to programme.
- Liaising with M & E and their various specialist sub-contractors
- Managing logistics and deliveries.
- Oversee the quality of the installation of services
- Ensuring all services are tested and proven to specification
- Arranging and reporting on regular progress meetings with all relevant participants.