



CONSTRUCTION PHASE ENVIRONMENT, HEALTH & SAFETY PLAN PROJECT SAM3A

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SCHEDULE OF CHANGES

Section	Date	Title	Amendments

SECTION 1 – PROJECT DETAILS

1.1 Document purpose

The project construction phase falls under the scope of the Belgian Royal Decree of 25 January 2001 on temporary or mobile construction sites.

<https://employment.belgium.be/en/themes/well-being-workers/temporary-or-mobile-construction-sites>

This document consists of the General EHS Plan validated by the CSC (Construction Safety Coordinator) designated by the Owner. Under Belgian law the CSC is also called 'coordinator for safety and health matters at the project execution stage'; i.e. the person entrusted by the Owner with ensuring safety and health coordination during the project execution stage.

This document is a legal document. All contractors and their subcontractors with site activities must comply with the requirements given in this document.

1.2 Project Details

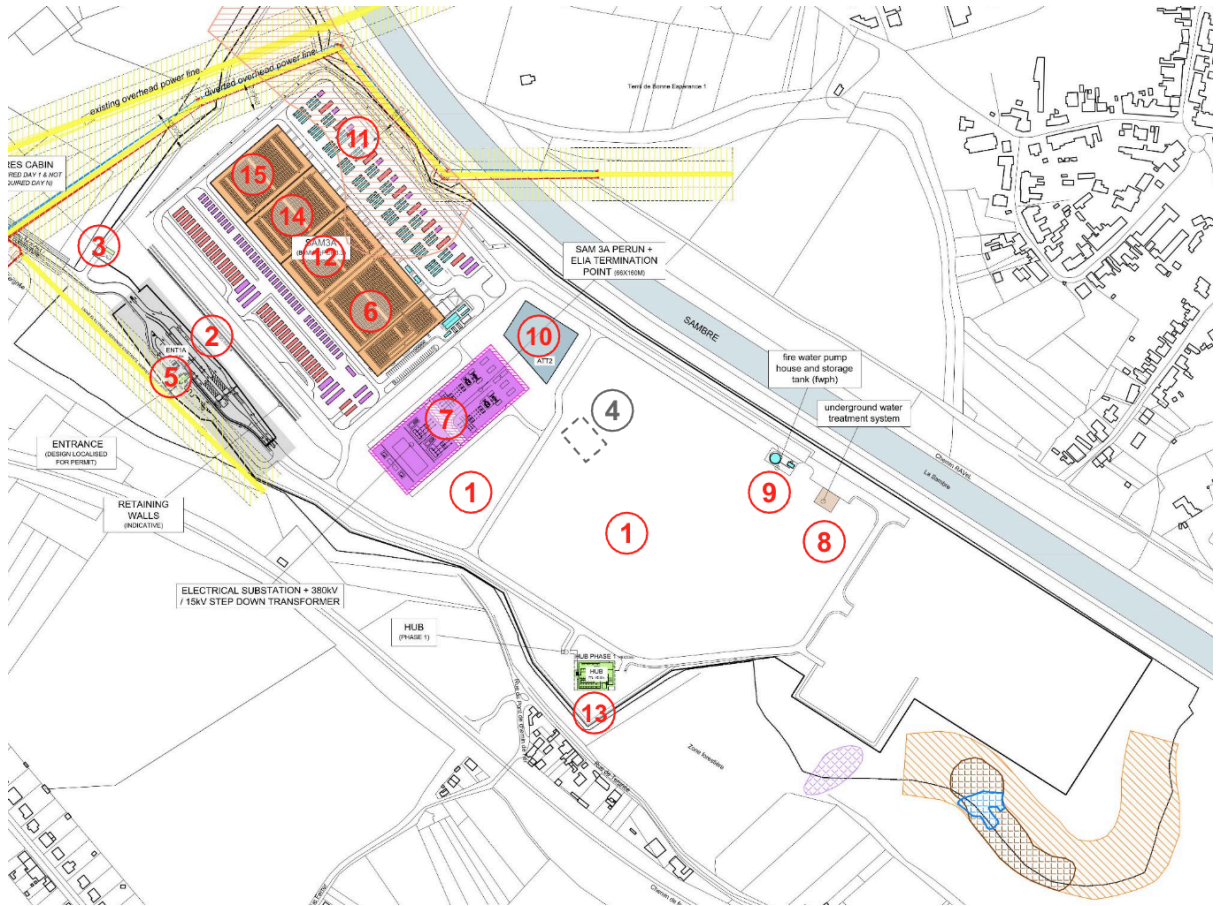
This section sets out the project particulars and background to the SAM3A project. It covers the context and scope of the project and provides a brief outline of the key aspects of the project.

1.2.1 Project Brief & Scope

The works comprise the construction of various buildings and installations, including:

The SAM3A greenfield project consists of the following elements - see picture below:

- Location for Contractors Compound (1)
- Retaining Walls (2)
- ORES Cabin - Power Point of Connection - Temporary MV (3)
- ORES Power Cord (to be removed after phase 1) (4)
- GDC Small Security Entrance (5)
- SAM3A gPOR3.3 DC (6)
- SAM3A Perun Substation + 380/150 kV Substation (7)
- Underground Waste Water Treatment System (8)
- Fire Water Pump House & Tank (9)
- SAM3A Attenuation Area (10)
- Contaminated Area (11)
- SAM3A gPOR3.3 DC Expansion (12)
- HUB ODC (13)
- SAM3A gPOR3.3 DC Expansion (14)
- SAM3A gPOR3.3 DC Expansion (15)



1.2.2 Location

The SAM3A is northeast of Charleroi town in Hainaut province.



Site Address

SAM3A site

Rue Jean Monnet 1

6240 FARCIENNES

Belgium

Adjacent to SAM3A

- North: Walagri SA - Fertiliser company
- Northwest: Sambre Compost SEDE Benelux - Composting centre
- West: Ecoterres - Treatment of polluted land
- Southwest: Elia TS Tergnée - High Voltage utility company
- West: Séchage Industriel Basse Sambre sa

In addition, Charleroi airport is 10.6 km to the west of the Project. Prior to any activity that may impact on airport movements, PMC Team must contact the airport authorities or the DGTA prior – Crane lifts and drone use. This project site is partially designated as a no fly zone.



Charleroi Airport

Rue des Frères Wright 8

6041 Charleroi

Tel: +32 78 15 27 22

Direction Générale Transport Aérien (DGTA)

Rue du Progrès 56

1210 Bruxelles

Tel: +32 2 277 31 11

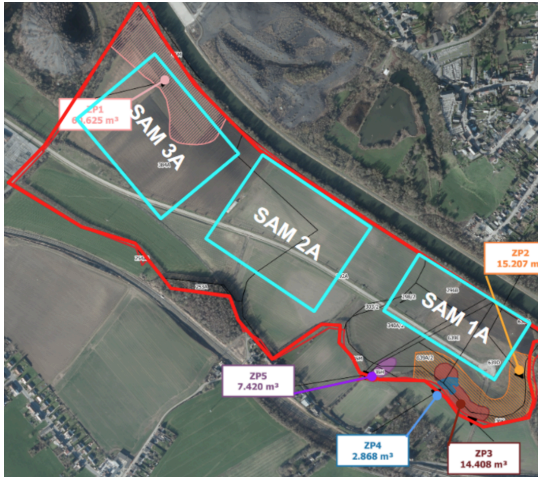
1.2.3 Site Conditions

Ground Conditions

Soil contamination

Soil investigations resulted in the identification of different areas and multiple degrees of contamination. Heaviest contaminated areas (ZP3 and ZP4) will require remediation via capping these zones with clean soil. This plan is aligned with AHJ and will be executed before the actual construction of the SAM3A project will start.

The other areas (ZP1, ZP2 and ZP5) don't require real soil remediation upfront. Soil coming from these areas can only be reused in the same area. In case this soil needs to be removed from site, a proper soil treatment needs to be carried out in accordance with the local Walterre regulations.



DD2 soil investigations resulted in the identification of multiple degrees of contamination

- ZP1, ZP2 & ZP5:
Soil from these areas can only be reused in the same area.

- ZP3 & ZP4:
Soil will be remediated by putting a capping of 50 cm.

Existing Surface Water Drains

The site is equipped with surface water drains which need to be kept operational to allow natural surface water to be drained from adjacent parcels. Drains can be relocated if required.

Archaeology

Nothing of note declared.

Any unanticipated archaeological finds are to be reported to PMC Team and to the Social Compliance Manager immediately and work stopped until it has been investigated further.

1.3 Teams and Roles & Responsibilities

The management structure and details of roles and accountabilities for SAM3A project are set out in this section.

1.3.1 Project Organisation Structure

Owner - The project Owner refers to Crystal Computing SRL.

Project Management Consultant (PMC) - The Project Management Consultant is contracted by the Owner to manage the delivery of the project on the Owner's behalf. The PMC team is the entry point of contact to the Owner.

Early Works Packages - Early Works Packages Contractor will be in charge of the site preparation works, e.g. cut and fill, enabling works, site development and general Logistics.

Specialty Package Contractor (SPC) - The Specialty Package Contractors refer to the three main construction contractors namely: PUF Contractor, Core & Shell Contractor and Fit-out Contractor.

Contractors - This includes other Contractors such as the LLE providers, FIA equipment providers, integrators, General Requirements Contractors, EHS consultants, A/E (Architect/Engineer), Architect of Record, Independent Commissioning Agents, Auditors, High-Performance Consultants and any subcontractors or vendors nominated by the Owner, working to develop the Project at any given time.

Project Team - This is referring to all the parties which are involved in the project (Owner, PMC, SPC, Contractors).

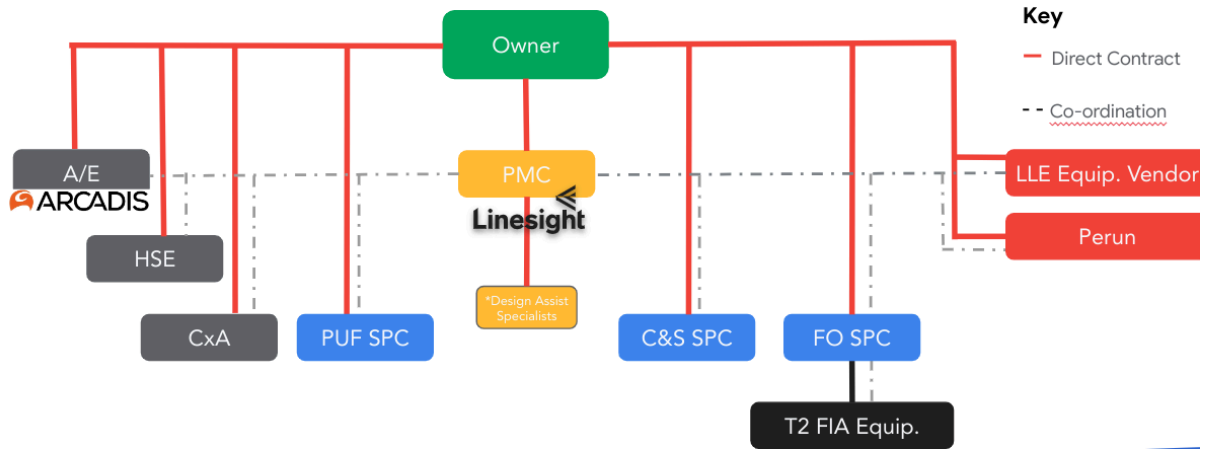


Figure: SAM3A PMC structure

1.3.2 Teams Details

Company Name	Role	Address	Contact details
Owner			
Soufyan Chebil	Design Safety Coordinator		M +32 479 87 24 96 E schebil@google.com
Sebastien Verhaeven	DCS Manager	Rue de Ghlin 100 B-7331 - Baudour, Belgium	M +32 477 70 00 04 E sverhaeven@google.com
Davy Bamps	Technical Project Manager	Rue de Ghlin 100 B-7331 - Baudour, Belgium	M +32 475 504 941 E davyb@google.com
Wayne Rogers	EHS PM		M: +44 7386 665 151 E wavnerogers@google.com
Gilles Delmee	Facility Manager	Rue de Ghlin 100 B-7331 - Baudour, Belgium	M: +44 7386 665 151 E gdelmee@google.com
Owner's Representatives			
Memis Icel	SAM3A CSF L1	Rue de Ghlin 100 B-7331 - Baudour, Belgium	M +32 484 541 180 E memis@externalworkforce.google.com
<i>Linesight (Hensafe)</i> Karin Trosch	SAM3A - PMC EHS Construction Lead		M +32 493 32 67 08 E trosch@google.com
TBD	SAM3A - PMC EHS Manager		TBD

Company Name	Role	Address	Contact details
Site Security			
<i>Securitas</i> (24hr Number)		Rue de Ghlin 100 B-7331 - Baudour Belgium	M: TBD E: TBD
Design Team			

Arcadis	Architect/Engineer A/E Manager		T: TBD M: TBD E: TBD
Group Sigma	Architect of Record	La Maison Blanche du Lac Avenue Normande n°19 à B-1332 Genval, Belgium	T +32 10 22 80 80 E info@groupsigma.be
Commissioning Consultant			
TBD			

1.3.3 Roles and Responsibilities related to EHS

Senior members of the Owner and PMC Project Director are involved in selection and appointment of individuals to fulfil roles within the PMC Team. Suitability and competence of individuals for each role is measured relative to their skills, qualifications, knowledge and experience.

Owner Technical Program Manager (PGM)

- Ensure this Construction Phase Environment, Health & Safety Plan (CPEHSP) is developed, and the PMC, SPCs and Contractors have provided written acceptance of it following any amendments.
- Ensure the review of CPEHSP is carried out and is signed off as suitable for current / imminent construction activities.
- Ensure the Traffic and Logistics Management Plan and Emergency Response Plan are in place prior to construction activities commencing.
- Ensure the Project Management Plans are reviewed periodically.
- Liaise with the Owner Project Director to set up a Design Process regarding design issues.
- Ensure the relevant EHS duties and coordinator roles for the project are properly assigned to members of the construction management team.
- Ensure that an initial project meeting is arranged with the SPCs and Contractors to agree on the EHS support resources necessary for the project.
- Ensure that EHS pre-qualification procedures are effectively implemented prior to inviting SPCs/Contractors to tender.
- Promote a positive EHS culture on the project and within the project organisation in general.
- Chair the project Safety Leadership Team (SLT) meeting and attend/dial in to the Owner SLT as required. Set the requirements for the project.
- Carry out regular leadership tours and identify good practice and unsafe acts / unsafe conditions by bringing these to the attention of the operatives and their supervisors.
- Follow up these tours by registering observations (relating to good practice as well as unsafe acts / unsafe conditions) using the Owner BOTG (Boot On The Ground) system and ensure that issues and actions are properly closed out.
- Support the PMC EHS Manager during any investigation following an accident/incident on site.

Owner Internal Prevention Advisor

The Owner Internal Prevention Advisor will have to combine two roles that are required by the Belgian law:

Owner CSF (Construction Safety Facilitator) - Level 1

The Internal Prevention Advisor (Conseiller en prévention niveau I) ensures the application of the Act of August 4th 1996 and the Royal Decree of March 27th 1998 within their company.

Their tasks and duties are as follows:

- Analyse Risk Assessments and provide advice on preventive measures.

- Compile a report for each piece of work equipment regarding compliance to Belgian legislation in the field of safety, hygiene and additional requirements provided when ordering.
- Compile a yearly report, according to appendix II 1-3 of the Belgian Code on Wellbeing at work.
- Contact the External Services for occupational health.
- Assist PMC EHS Manager on EHS related issues.

The PMC EHS Manager will report to the Owner CSF Level 1.

Owner Coordinator Construction - Level A

The Coordinator Construction (Coordinateur Réalisation / Coordinateur sécurité-santé sur chantiers temporaires ou mobiles) endorses the legal part of the construction project.

According to Article 4 of the Royal Decree of January 25th 2001, the tasks and duties of the Coordinator Construction are as follows:

- Amend the EHS Plan and distribute it to the intervening parties.
- Ensure that those involved are informed in writing of any conduct, actions, choices or negligence that violate the general principles of prevention. To this end, he/she may also use a coordination diary
- Organise any coordination structure under the provisions of Article 40.
- Complete the post-intervention file in function of the elements of the updated health and safety plan, which are important for the execution of later work on the construction site.
- In the provisional delivery of the works or, failing that, in the delivery of the works, he/she transfers the updated health and safety plan, any coordination diary and post-intervention file to the Owner who appointed him/her and records the handover in writing in the post-intervention file.

PMC Project Director

- Enforce, check, review and update if required this Construction Phase Environment, Health & Safety Plan (CPEHSP), and that the SPCs and Contractors have provided written acceptance of it following any amendments.
- Ensure compliance with the owner requirements, as set out in Exhibit U.
- Enforce, check, review and update the Traffic and Logistics Management Plan and Emergency Response Plan throughout the construction activities.
- Review the Project Management Plans periodically.
- Liaise with the Owner TPM to set up a Design Process regarding ongoing design issues.
- Enforce, check, review and update the proper assignment of EHS duties and coordinator roles to members of the construction management team.
- Enforce and check that an initial project meeting is arranged with the SPCs and Contractors to agree on the EHS support resources necessary for the project.
- Ensure that EHS pre-qualification procedures are effectively implemented prior to inviting SPCs/Contractors to tender.
- Promote a positive EHS culture on the project and within the project organisation in general.
- Chair with the TPM the project Safety Leadership Team (SLT) meeting.
- Chair the project Safety Leadership Team (SLT) meeting and attend/dial in to the Owner SLT as required. Set the requirements for the project.
- Carry out regular leadership tours and identify good practice and unsafe acts / unsafe conditions by bringing these to the attention of the operatives and their supervisors.
- Follow-up these tours by registering observations (relating to good practice as well as unsafe acts/ unsafe conditions) using the BOTG (Boot On The Ground) system and ensure that issues and actions are properly closed out.
- Support the PMC EHS Manager during any investigation following an accident/incident on site.

PMC Construction Manager

- Maintain a comprehensive understanding of the Owner Environment, Health, Safety & Wellbeing Management System.

- Ensure compliance with the owner requirements, as set out in Exhibit U.
- Assist in promoting a positive EHS culture on the project and within the organisation in general.
- Report to the PMC Project Director any policy improvements considered necessary.
- Assist in the Pre-commencement Project EHS Assessment to identify the risks associated with the initial stages of the project and continue to assist in safety assessments to identify the main risks during the execution of the project.
- Assist in the assessment of SPC/Contractor tender documents for EHS content to ensure, so far as is reasonably practicable, that suitable and adequate provisions are made therein.
- Arrange pre-mobilisation meetings with SPC/Contractor Management to discuss general site safety procedures and SPC/Contractor EHS procedures and work methods.
- Monitor SPC/Contractor operations for general health and safety compliance in accordance with their agreed risk assessments/ method statements.
- Ensure SPC/Contractor Risk Assessments and Method statements are reviewed by the Construction Management Team (Self or CSA Package/Project Mgrs) and an EHS Team representative for the issuing of approval or rejection. Final Approval or Rejection to be completed by the EHS Manager.
- Participate in the SPC/Contractor Key Performance Indicator (KPI) process ensuring that each package of works is measured in line with the project sub-KPI categories.
- Perform weekly site inspections during construction activities. Act as necessary by bringing good practice and unsafe acts / unsafe conditions to the attention of the operatives and their supervisors.
- Follow-up these site inspections by logging observations (relating to good practice as well as unsafe acts/ unsafe conditions) using the BOTG and ensure that issues and actions are properly closed out.
- Ensure SPCs/Contractors investigate all incidents including Near Miss and those that cause minor injury.
- Attend site EHS meetings to discuss and deal with any matters as may be presented.
- Chair weekly/monthly progress or review meetings with SPC/Contractor and ensure EHS forms part of the agenda.
- Set a leadership example by following and applying Owner Safety standards at all times on site. Engaging with the workforce, using BOTG as required and by encouraging the SPCs/Contractors to use BOTG and the Safety Observation Cards on site.

PMC EHS Manager

- Support and advise the Owner and PMC team to ensure understanding and implementation of the EHS Management System and to assist in the preparation of an adequate and effective CPEHSP on a project specific basis.
- Ensure the review of the CPEHSP is carried out in collaboration with the Project Director and is signed off as suitable for current / imminent construction activities.
- Prepare and present effective EHS training courses, seminars and workshops in accordance with the project requirements.
- Conduct inspections on a regular basis to ensure compliance with standards is being achieved on site.
- Register observations using the BOTG system and ensure that observations are properly closed out.
- Undertake project EHS Performance Measurement auditing in accordance with the Owner procedures.
- Provide a monthly reconciliation safety report or discussion with the TPM, the PMC Project Director and Senior Management Team.
- Investigate all incidents resulting in accidents, major injury, significant Near Miss incidents and dangerous occurrences.
- Prepare and develop EHS procedures in accordance with current and proposed legislation.

PMC, SPC and Contractor Project Managers

- Ensure a Company specific CPEHSP is developed for SAM3A project, and the Owner has provided written acceptance of it prior to commencing construction activities.

- Ensure Company specific Traffic Management and Logistics Plan and Emergency Response Plan are in place prior to commencing construction activities.
- Ensure the review of the Company specific CPEHSP is carried out and is signed off as suitable for current / imminent construction activities.
- Ensure the relevant EHS duties and EHS Coordinator roles for the project are properly assigned to members of the construction management team.
- Ensure that an initial project meeting is arranged with the EHS Department to agree on the EHS support resources necessary to the project.
- Ensure that EHS pre-qualification procedures are effectively implemented before inviting Contractors and Subcontractors to tender.
- Promote a positive EHS culture.
- Report to the Project Director any improvements considered necessary.
- Set a safety leadership example by following and applying the Owner safety standards (GSafe) at all times on site. Engaging with the workforce, using BOTG as required and by encouraging the Contractors and Subcontractors to use BOTG on site.
- Carry out regular site safety tours and identify unsafe acts / unsafe conditions by bringing these to the attention of the operatives and their supervisors.
- Follow-up site safety tours by registering observations (relating to the unsafe acts/ unsafe conditions) using BOTG system and ensuring observations are properly closed out.

A/E Manager

- Maintain a comprehensive understanding of the Owner Environment, Health, Safety & Wellbeing Management System.
- Help promote a positive EHS culture on the project.
- Report to the Owner and PMC Project Director any policy improvements considered necessary.
- Coordinate the design risk assessment process with the various designers and the PMC to identify the main hazards associated with the project, particularly those associated with design features, post occupation and maintenance issues.
- Arrange pre-mobilisation meetings with the Design team to discuss and review any design aspects which have potential safety implications.
- Set a leadership example by following and applying Owner's safety standards (GSafe) at all times on site. Engaging with the workforce, using BOTG as required and by encouraging the SPCs/Contractors to use BOTG and the Safety Observation Reports on site.
- Ensure that the design requirements of the Working Conditions Decree are incorporated in all designs and inform the coordinator of any changes.

Architect Manager

- Maintain a comprehensive understanding of the Owner Environment, Health, Safety & Wellbeing Management System.
- Help promote a positive EHS culture on the projects.
- Report to the Owner and PMC Project Director any policy improvements considered necessary.
- Arrange pre-mobilisation meetings with the Design team to discuss and review any design aspects which have potential safety implications.
- Set a leadership example by following and applying Owner's safety standards (GSafe) at all times on site. Engaging with the workforce, using BOTG as required and by encouraging the SPCs/Contractors to use BOTG and the Safety Observation Reports on site.
- Ensure that the design requirements of the Working Conditions Decree and Permit requirements are incorporated in all designs and inform the coordinator of any changes.

PMC Commercial Manager

- Maintain a comprehensive understanding of the Owner Environmental, Health, Safety & Wellbeing Management System.
- Promote a positive EHS culture on the project.
- Report to the PMC Project Director any policy improvements considered necessary.

- Ensure, so far as is reasonably practicable, that adequate financial provisions are available for EHS requirements and included in the project budget.
- Ensure, so far as is reasonably practicable, that out-to-tender documents include adequate information on significant cost related safety resources for consideration by tendering SPCs/Contractors.
- Assist in the assessment of SPC/Contractor tender documents for Health and Safety content to ensure, so far as is reasonably practicable, that suitable and adequate provisions are made therein.
- Set a leadership example by following and applying Owner's safety standards (GSafe) at all times on site. Engaging with the workforce, using BOTG as required and by encouraging the SPC/Contractors to use BOTG and the Safety Observation Reports on site.
- Ensure the BOTG system is used to register observations relating to the unsafe acts/ unsafe conditions.
- Ensure, so far as is reasonably practicable, that out-to-tender documents include adequate EHS information i.e. starter packs are issued for consideration by tendering SPCs/Contractors.

1.3.4 Competency and Training

A formal up-to-date record of training is maintained by the SPC for the Owner and PMC Team and located on the drive available at any time.

All SPCs and Contractors must only employ competent and trained personnel on the project and must provide an up-to-date record of relevant training and certifications for their personnel employed on the project. The record must be maintained by the SPC/Contractor on the shared drive, updated and provided upon request.

All SPCs and Contractors will confirm the requirements for training, qualification and certification in their operational control plans. This information is required as part of Method Statements and can be audited upon request.

Regular review of training compliance and competencies will be conducted to ensure that all SPCs/Contractors are meeting project requirements.

1.3.5 Authoring Review and Accepting

Arrangements need to be put in place by the PMC to ensure that the key project documents are authored and approved by the appropriate party. Each key control document is to be completed in response to the specific project and contractual requirements.

Any deviation from the current processes needs to be identified within the relevant section or key control document contained within the CPEHSP and signed off by the Leadership.

The latest version of each document identified should be located on the drive (or equivalent document management system for the project).

1.4 Objectives & Targets

Under their commitment to meet key stakeholder requirements and their drive for continuous improvement, the Owner has established objectives at appropriate levels to achieve these aims.

1.4.1 Owner/PMC Key Performance Indicators

Standard	Target	Participants
Attendance at meetings (DABS, Housekeeping walks, SLT, Weekly EHS meeting)	100%	All SPCs/Contractors

RAMS Schedule submitted and updated weekly	1 schedule	All SPCs/Contractors
Weekly EHS documentation follow up - completed & submitted on time	1 return form	All SPCs/Contractors

1.5 Information Management & Reporting

This section sets out the minimum requirements for managing information on the project. It still needs to be developed to incorporate the project specific requirements.

Information management procedures may vary depending on the contract type and requirements of the Owner and PMC.

1.6 Information & Data Management

Information and Data Management must be in accordance with legal and contract responsibilities.

All personnel receive an induction and have to review and sign the NDA document.

1.7 Project Meetings/Reporting

Meeting	Purpose	Parties Involved	Frequency
Design Safety Team Meetings	Coordinate design Resolve design issues Monitor information release	Architects, SPCs/Contractors	Weekly
Owner Project Meetings	Gives the Owner an overall picture of the project, including EHS	All members of the Owner and PMC Team	Fortnightly
EHS Review Meetings	To inform the Owner of actions and issue on EHS	Global (Owner + trades) EHS team	Weekly
Housekeeping Walks	To have a closed status of the storage and housekeeping condition on site	Global (Owner + trades) EHS team	Weekly
Trade Contractor Directors Meeting	Carry out a safety inspection or audit prior to attending the meeting to review project Health and Safety, Progress, and Financial Issues with the Trade Contractors Directors.	SPCs/Contractors	Monthly
Trade Contractor Progress Meeting	Review progress against programme Resolve coordination issues	SPCs/Contractors	Weekly
Trade Contractor Health and Safety Meetings	Carry out a site inspection prior to the meeting to review all aspects of Health and Safety on site with all Trade Contractors supervisors	SPCs/Contractors	Weekly
Daily Coordination	Review of activities and coordination on site for the coming day, night and weekend	SPCs/Contractors	Daily

Meeting	Purpose	Parties Involved	Frequency
(DABS, DABS, WABS)			
Last Planner	Weekly review and look ahead of activities and program for	SPCs/Contractors	Weekly
Lifting Coordination	Review of all upcoming lifts on site	SPCs/Contractors	Daily
Four Weekly Lookahead	Review of Program and upcoming works	SPCs/Contractors	Weekly
Four Weekly Health and Safety Review Meetings	Internal review of the Health and Safety performance and issues over the past month	Internal Owner and PMC Team	Monthly
Safety Leadership Meeting	Monthly walk and meeting to assess the safety performance of the trades by entire leadership (Owner + trades)	Owner and PMC Team + SPCs/Contractors	Monthly

Safety Leadership Team (SLT)

SAM3A	
Central Europe Manager	Emmanuel Wendrix
BRU Metro DCS Manager	Sébastien Verhaeven
SAM TPM	Davy Bamps
Construction	TBC
Safety	TBC
Commercial	TBC
Design	Arcadis

Key Metrics & Activities for the Campus SLT's

Daily	Weekly / Bi-Weekly	Monthly/Bi-Monthly
Share R360 information and associated lessons learned with all GBL Projects and feed into the Owner SLT (As and When Happen)	Nominated Campus SLT member to attend the Workers safety committee meeting (Bi-Weekly)	Host and facilitate the Campus Specific SLT meeting involving representatives from each project SLT team (review Safety performance, identify trends, good/bad SPCs/Contractors, share best practice across Campus etc etc) (Monthly) to be at the same time as 4 weekly meeting
Ensure safety is discussed and considered and where appropriate implemented at all scheduling / planning and operational meetings / decisions (As and When Required)	Nominate Campus SLT member to attend the weekly SPC/Contractor safety meeting (Weekly)	Participate in Owner Framework SLT Meeting (Monthly)

	Nominated Campus SLT member to attend Safety Meeting with SPCs/Contractors (Weekly)	Ensure a site evacuation is executed (Every 3 months, during first part of the project and then on a Monthly base during the first phase of the Fit out)
		Complete a Site Safety Tour. All Campus SLT Members to attend (Monthly)
	Undertake 3x R2L2 assessments per week	Ensure the R2L2 Assessment are share with all SPC/Contractors
		Collect and collate project specific metrics and from each Project SLT and ensure metrics are being generated and targets met (Monthly)
		Feed Campus Metrics to the SLT (Monthly)

1.8 Communication guidelines

Owner and PMC Team, SPC and Contractors will have to share and regularly update their contact details, including escalation contacts, with the PMC that will ensure the centralisation of the information for the project.

PMC will ensure that communication arrangements agreed by the Owner and PMC Team are implemented.

See Communication guidelines in SAM3A Project Execution Plan.

1.9 Media & Public Relations

The SAM3A project is subject to strict confidentiality agreements.

Specifically, on this project all matters relating to Media and Public Relations are to be dealt with by the Owner directly. PMC, SPCs and their supply chain and the Contractors are not permitted to speak about the project outside of those involved in the project.

All matters relating to Press, Media and other Public networks are to be immediately referred to the Owner and PMC Project Director.

1.10 Community

Community Feedback (Complaints, Compliments and Enquiries)

In the event of a complaint, compliment or enquiry from a neighbour, member of the public, Local Authority, or any other stakeholder, whether given verbally, in writing or both, it must be recorded by the PMC. Initial response is to be polite and courteous but do not engage and give more detail than is necessary. Escalate to your Manager for reporting to the PMC Team or Owner.

PMC/SPCs/Contractors must immediately notify the Owner should they receive any complaints or enquiries. A 24-hour emergency contact will be available (To be confirmed later) for all stakeholders. Detailed record-keeping on this matter is essential as it can be used in a range of situations from audits and inspections to legal proceedings.

All complainants will be reported to the PMC Project Director or their representative for further discussion within 24 hours. Identification of a mutually acceptable resolution will be found within seven days where reasonably possible.

1.11 Onsite Awareness & Instruction

Arrangements for co-operation and co-ordination between all parties involved in the project (including Owner, Principal Designer, etc.) and engagement of the workforce is undertaken through regular meetings and the following forums implemented on the project.

Forum	Requirement
Induction - General	<p>For inductions, the following applies:</p> <ul style="list-style-type: none"> • An induction request must be submitted to PMC Social Compliance, 2 workdays in advance. • Evidence <u>must</u> be provided that the involved person is entitled to work in Belgium, by providing: <ul style="list-style-type: none"> ○ Passport or ID card ○ For Belgians: The Belgium National Number (NISS) and DIMONA ○ For Non-Belgians: A1 showing contribution to Belgian Tax and LIMOSA ○ If from outside the EU, also a copy of work visa. • Evidence of completed training and competence <u>must</u> be provided, for example B-VCA, VOL-VCA, CSCS, IPAF, PASMA, Safe Pass, MASE. • All site personnel are required to attend the project operatives' health and safety induction of the project remotely and should pass it with minimum 80% prior to accessing the site. This induction will be available in 10 different languages (French, English, Dutch, Roumanian, Polish, Hungarian, German, Lithuanian, Bulgarian and Ukrainian).
Access to site	<p>After receiving all legal documents and having the proof that the person has succeeded the induction test, the person will be issued with their security badge to access the site. Prior to receiving the badge, the person will have to read, sign and adhere to a non-disclosure agreement (NDA).</p>
Visitors	<p>All visitors are required to be escorted by a fully inducted member of the site team.</p> <p>Visitors are not permitted to undertake any physical labour onsite. Visitors must wear the required PPE at all times as advised prior to their site visit.</p>
Induction for Delivery Drivers	<p>Before a delivery can be done on site, a delivery access needs to be requested and approved by the PMC. When the delivery arrives on site, it will be requested that the driver becomes acquainted with "Site rules" outlining the essential site rules. Delivery Drivers are not allowed to bring under age persons on to site lower under 16 years old.</p>
RAMS Briefings	<p>SPCs/Contractors are required to undertake RAMS briefings to their workforce. The SPC'S/Contractors must ensure their workforce sign to say they have received and understood the RAMS Briefings. These must be recorded and must be shared via Weekly EHS documentation submission. Briefings will take place prior to commencement of the task and must include an explanation of risks, agreed methods, precautions and implemented preventative measures to ensure safety.</p> <p>Suppliers will undertake re-briefing following any changes to the work in hand, or for ongoing works at regular intervals defined within their RAMS.</p>
Safety and Environmental Toolbox Talk	<p>SPC/Contractor Managers or Health and Safety Managers are required to provide a weekly safety toolbox to their workforce.</p> <p>Safety toolbox talks must be on a relevant EHS topic associated with the current or planned imminent works. Toolbox talks may further be instructed by the project management team at any time to cover learning points from incidents or project bulletins.</p>

Forum	Requirement
Collaborative Planning Meetings	The PMC Team must undertake monthly collaborative planning meetings with all SPCs and Contractors to agree and coordinate activities for the coming months to identify and address any High Risk Activities (HRAs).
Daily Activity Briefings (DAB's)	<p>The daily activity briefing will be attended by PMC Project Managers and all SPC's Site and Project Managers, Supervisors at 7:30am to document and communicate the same day's work activities.</p> <p>The activities will be recorded by the PMC and further include the SPC/Contractors' High Risk Activities (HRA's).</p>
Last Minute Risk Assessment (LMRA)	<p>LMRA to be undertaken daily before works commence by the SPC/Contractors' Supervisor(s).</p> <p>To communicate requirements regarding high-risk activities impacting on planned activities and any key issues / lessons learnt from previous shifts. Further communicating co-trades activities and High-Risk Activities (HRA's). SPC/Contractor documentation can be used for this. Owner and PMC will audit LMRA's on a daily basis.</p> <p>Note: May also undertake NAB's for night shift working.</p>
Weekly Project Progress Meeting	Progress meetings to be held between PMC, SPCs and Supplier supervision to review EHS performance and targets.
Project Safety Leadership Team (SLT) Meeting	<p>Senior Leadership represented, to review the project EHS and Environmental performance, and strategy for improvement. Chaired by PMC Project Director.</p> <ul style="list-style-type: none"> ● Meets Monthly. ● Meeting will be minuted and sent out to personnel by email.
Project EHS Meeting	<p>EHS professionals meet to review performance and work collaboratively to ensure common standards are implemented effectively. Chaired by the PMC Team Lead EHS Manager.</p> <ul style="list-style-type: none"> ● Meets weekly. ● Meeting slides communicated. ● SPC/Contractor EHS tour to take place weekly.
Worker's Forum	<p>An employee (blue collar) will represent each of the trades on the project. Besides the formal meeting, a project EHS inspection must be conducted prior. Chaired by the PMC Team Lead EHS Manager.</p> <ul style="list-style-type: none"> ● Meets Monthly. ● Forum is minute and or communication of key actions jointly issued by Owner and PMC EHS leads.
Supervisor site Tour	<p>The meeting will include a tour of the workplace and a formal meeting to review the findings and strategy to improve workforce engagement. Chaired by an EHS Manager.</p> <ul style="list-style-type: none"> ● Meets Monthly.

1.12 Site Training & Awareness

SPCs and Contractors must provide qualified and competent supervisors to oversee and supervise the safe delivery of works as per Owner and PMC mandatory training requirements.

All operational Project personnel must hold the appropriate card/certificate for their work activity. Country qualification requirements vary from country to another (e.g. Belgium). Minimum standards are at least one of the following:

- SCC (VCA) - Germany/Netherlands/Belgium
 - VCA Basic for site operatives
 - VCA Vol for operational supervisors
- CSCS - UK
- Safe Pass - Ireland
- MASE - France
- 8-hour Safety training certification as per Belgium Law.

Any other country specific competence card is accepted after prior agreement by the PMC.

All PMC/SPCs/Contractors' personnel must have attained and continue to maintain competence for the roles and tasks they undertake. Training requirements are set out in the document "SAM3A EHS Minimum Performance Requirements".

The supervisors must attend the "GSafe workshop for Supervisor" Training (French and English) as soon as practically possible after commencement, and also attend the "Supervisor Orientation".

SPCs/Contractors must demonstrate that their supervisors are competent and suitable for their position. Each SPC/Contractor on site and PMC is required to maintain an up-to-date training matrix identifying names, job titles, training undertaken, dates for refresher training, for each individual on site. A copy of the updated matrix must be issued to the PMC management team each month.

Besides the aforementioned, Supervisors to be appointed on the project will be assessed by the Owner and PMC, on a.o. the following items:

- Qualifications and Certifications (VOL VCA or equivalent)
- Behaviour
- Engagement
- Communication skills with his/her Workforce

1.13 Access to Competent EHS advice

All PMC, SPCs, Contractors' workforce must have access to a professional EHS advisor within their own organisation.

PMC, SPCs and Contractors will be responsible for implementing for them and their Subcontractors at least the following measures:

- If the number of workers of the PMC / SPC / Contractor (incl. their Subcontractors) is less than 29, only a part time Health and Safety Advisor is required.
- Between 29 up to 99 workers (incl. Subcontractors), at least one full-time on-site Health & Safety Manager is required.
- For every additional 100 workers (incl. Subcontractors), an additional field Health & Safety Supervisor is required.

The required level of education and qualifications for the Health and Safety Manager of each PMC / SPC / Contractor are the following:

- Health and Safety Professional with Health and Safety Advisor Level I or II training AND
- Twelve (12) or more years of construction safety experience.

The required level of education and qualifications for the field Health & Safety Supervisor are the following:

- Basic Health and Safety Advisor Transition Level training AND
- Three (3) years or more of relevant knowledge of all safety and health rules and regulations specifically in the hazards of the Work to be performed.

If the SPC/Contractor requires more than one Health and Safety Professional due to the number of workers, then the level of education and qualifications required from the additional professional must be at least Health and Safety supervisor.

1.14 Continuous improvement

To ensure that SPCs and Contractors continue to meet Owner expectations, the Owner and the PMC are required to identify opportunities for improvement and implement any necessary actions to improve the services provided.

1.15 Lessons Learned and HAZID

Exercises should be carried out to suit the complexity, nature and timescale of the project. Lessons learned will be communicated and shared with EHS Advisors quarterly through a site bulletin.

A specific HAZID for SAM 3A will be carried out by the A/E together with the Owner and the PMC Team and will be updated at onboarding of a new SPC or Contractors (e.g: Perun and Hub)

1.16 Health and Safety Audits

Independent inspections and weekly audits of the site need to be undertaken and reports issued by the resident Health and Safety Manager and SPCs/Contractors' representatives.

The basis of such inspections and audits will be the Health and Safety Plan, Major Incident Plan, compliance with the Safety Management System and relevant legislation. SPCs/Contractors must fully cooperate with this activity and provide any information that may be requested. SPCs/Contractors are to be given copies of reports and are required to comply with any corrective actions requested.

The results of such inspections/audits must be recorded by the PMC on specific forms and maintained within the project office. Any resulting instructions are to be passed in writing to the Owner site management and must be complied with by the action date stated.

1.16 BOTG (Boots on the Ground) and Minimum requirements

What is it?

The BOTG program aims to capture meaningful observations and coaching/kudos opportunities to build a safe working environment at the Owner data centres which will reduce the occurrence of incidents. This program can be utilised to report observations and engagements related to construction safety/environmental topics. Training will be provided by the PMC EHS Team to enable the participants to correctly understand what is expected of them.

The spirit of BOTG is to praise and reinforce positive behaviours and to correct, with coaching and mentoring, poor or negative behaviours. The idea is to promote a positive and healthy Safety Culture.

It will be required from everyone to capture positive/negative observations to encourage a good Safety Culture or to improve it if required.

Specific target will be assigned to all the actors of the project:

- Owner and PMC: requirement is minimum 3 to 5 BOTG observations per day/pers
- SPC: requirement is minimum 3 to 5 BOTG observations per day/pers
- Contractors and Subcontractors: requirement is minimum 5 BOTG observations per week/company

SECTION 2 - HEALTH, SAFETY & WELLBEING

REQUIREMENTS

2.1 Minimum Requirements

Minimum requirements to be followed by any member of the PMC Team, SPCs and Contractors are:

- [SAM3A EHS Minimum Performance Requirements](#)
- [SAM3A Emergency Plan](#)
- [SAM3A Environmental Management Plan](#)
- SAM3A Logistic Plan (add link)

2.2 Subcontracting and Subcontractor EHS KPI League

Where a SPC, Contractor or supplier subcontracts works it must be satisfied that the entity they are contracting to has the required resources, skills, knowledge and experience to undertake the works in a safe manner and that the "Owner EHS Minimum Performance Requirements" form part of the subcontract arrangements. Subcontracting tier level -2 maximum from Owner level will be authorised.

If for any kind of reason, the SPC and Contractors want to go below that level, agreement will need to be requested to the PMC Compliance Team.

Subcontractors health and safety league

PMC EHS Manager will set up the Subcontractor Health and Safety league. Subcontractors will be marked on the following items as per the [HEALTH AND SAFETY SCORING CRITERIA](#) :

- PPE
- Housekeeping
- Safe working practices
- Supervision
- Toolbox talks
- Quality and compliance with Method Statement and Risk Assessments
- Safety audits / inspections
- Safety documentation

Each Subcontractor will be marked then the Subcontractor with the highest score will be awarded the monthly Subcontractor award for Health and Safety.

The results of the Monthly Subcontractor award must be included within the Project Report and will be discussed at the Subcontractors Directors meeting, where the award will be presented to the best performing Subcontractor.

In case of poor performance, Subcontractors need to be informed and requested to improve their performance. Failure to improve will be escalated to the Owner EHS advisor / manager.

2.3 Activity Planning

This section details activities that must be undertaken prior to commencing physical work on site. Many of these activities are processes which must also be maintained during the mobilisation phase.

SPCs and Contractors must provide competent managers, supervisors and workers to complete the work activities within their scope.

2.3.1 Competency & Training

- SPCs and Contractors must include in their EHS Plan submittals to assess employee's competence related to their job.
- SPCs and Contractors must provide competent persons for key safety related roles i.e. vehicle marshals, confined space coordinators and temporary works coordinators, if required.

- SPCs and Contractors must retain copies of competency cards on site and be able to demonstrate the training provided for those undertaking specific roles.
- All SPCs and Contractors shall conduct a training following needs assessment of their workforce (including self-employed persons under their control) and provide task specific training e.g. abrasive wheel, before commencing a task.

Induction training must be provided by the PMC to everyone working on the project A training matrix with all the training details must be kept and updated by the SPCs/Contractors. The matrix should be available on demand.

The following tasks have been identified as requiring specific training:

Task	Training Required
Plant and Machine Operators	Certificate of competence from an accredited training organisation.
Use of Mobile Elevated Work Platforms (MEWPS)	Certificate of competence from an accredited training organisation.
Lifting Operations - Slinger/Signaler	Confirmation letter of competence or Certificate of competence from an accredited training organisation. Lifting accessories, all web slings and fibre strops should be protected with protective sleeves where they come into contact with the load that is to be lifted. This will prevent the sling/strop from becoming damaged from abrasive surfaces or sharp edges.
Fixed Scaffold Erection and Inspections	Scaffold Inspection Course, Confirmation letter of competence from an accredited training organisation or Certificate of competence.
Erection and Safe use of Mobile Towers	Certificate of competence from an accredited training organisation.
Work on Electrical Systems	Recognised electrical qualification according to Belgian legislation (BA4, BA5).
Work on Gas Systems	Recognised qualification for work on gas systems.
Work within Confined Space	Confirmation letter of competence and training or Certificate of competence from an accredited training organisation.
Hot Works Permits- Fire Spotter	Competent training/knowledge with certificate of competence and training or Certificate of competence from an accredited training organisation.
Manual Handling	Confirmation letter of competence and training or Certificate of competence from an accredited training organisation.
First Aid	Certificate of training course completed by an approved provider.

To reinforce the site rules, the requirements of Method Statements and Risk Assessments and to raise the awareness of specific issues, such as Manual Handling and Hand Arm Vibration, each SPC/Contractor is required to provide their operatives with Tool Box Talks. These are performed weekly and recorded. A register of all Tool Box Talks given must be signed by all operatives, maintained and kept within the project office by the SPC/Contractor.

A copy of this Health and Safety Plan, together with the project specific site safety rules need to be formally issued by the PMC to each SPC/Contractor prior to their start on site.

2.3.2 Risk Assessments and Method Statements (RAMS)

Prior to the commencement of work each SPC/Contractor must identify significant hazards and prepare a Risk Assessment and Method Statement (RAMS) for each work activity. SPC/Contractor must submit their RAMS using the approved SAM3A template.

All SPCs/Contractors are required to submit their RAMS at least two weeks prior to the agreed start date of the work activity. This will allow sufficient time to complete the review and approval process and minimise disruption or prevent delays to the programme of works. Emergency RAMS will require Owner approval.

Before associated works can commence, all RAMS must always be reviewed for scope and adequacy

- Two PMC managers (Construction Manager/Package Manager and EHS) and
- One Owner EHS manager (CSF).

The RAMS will then be approved and signed off by the Owners EHS Manager (CSF)

The RAMS must have achieved an 'Acceptable (A)' status. Where a RAMS is reviewed and deemed to be insufficient or incomplete (either in content, clarity, depth or scope of information) the SPC/Contractor must amend it and re-submit it for review and approval prior to work starting.

The SPC/Contractor must be in receipt of the signed off submittal form, through Smartsheet before any works can commence.

All EHS RAMS are to be listed on a master schedule managed by the PMC which should include:

- The 'method statement title'
- The 'revision number'
- The 'scope of works which it covers'
- The approval status and
- The date of when the work is due to be carried out.

SPCs/Contractors must keep a record of accepted RAMS electronically through the document management system and a hard copy kept in the onsite file with associated briefing sheets attached. The uptodate register should be available on demand.

RAMS need to be reviewed at least every three months or more frequently when the Method Statement, working environment, key personnel or other project circumstances change.

Where the PMC Team has identified that the SPC/Contractor works are not adequately covered by an approved RAMS, all or specific parts of those works will be immediately suspended by a PMC manager until satisfactory action is taken by the SPC/Contractor to rectify the situation.

2.3.3 Occupational Health, Occupational Hygiene and Wellbeing

SPCs/Contractors must have processes that identify and manage the risks to the health and wellbeing of their employees, and others who may be affected by all work-related activities.

SPCs/Contractors must have appropriate, competent occupational health provision in place for the protection of their workers and fulfilment of their statutory requirements for health.

This may include regular health monitoring, appropriate health surveillance (where the need has been identified) and fitness for work assessments. The occupational health provision must be provided by an occupational physician (unless provided by an in-house nurse/doctor, whose appropriate qualifications must be demonstrable).

PMC Team and the Owner will ensure that a "Trusted Person(s)", suitably qualified as per Belgian certification, is onsite. The name and function of the "Trusted Person(s)" will be communicated to all site personnel and they will be supported by the other PMC and Owner Mental Health First Aid and wellbeing personnel.

The SPC/Contractor must also:

- Demonstrate that appropriate training, awareness and support is in place for employees' mental wellbeing.

- Adopt the Building Mental Health Charter.
- Participate in any site activities that support and improve the wellbeing of employees (such as health awareness talks, fitness challenges, healthy eating, smoking cessation). This may involve engagement with PMC Team wellbeing activities, in addition to SPC/Contractor or Owner specific activities.
- Demonstrate that appropriate return-to-work support is in place for employees returning to work following injury or illness.
- Educate, protect and enforce appropriate controls for identified health risks on site and where possible seek to minimise or eliminate harmful by-products of construction to protect health.

SPCs/Contractors must be able to demonstrate they are exercising their duty of care to protect employees through managing health risks and creating opportunities for wellbeing.

In accordance with European regulations (European directive 89/391/EEC), when the internal services of the SPC/Contractor are not able to execute correctly all the missions entrusted to them, the SPCs/Contractors have a legal obligation to subscribe to external services for prevention and protection at work. The services support both risk management and medical supervision. In addition, external services must have been created and approved specifically for this task. The legal duties of the prevention services are vast and relate not only to the safety and health of workers but also to psychosocial aspects in relation to the work environment or even ergonomics and hygiene at work.

2.3.4 Protection of the Visitors

SPCs/Contractors need to include adequate precautions to protect the Visitors and others throughout the duration of the works. Arrangements in respect of the protection of the Visitors need to be clearly defined within the RAMs.

It is the SPC/Contractor's responsibility to:

- Identify hazards to the visitors associated with the SPC/Contractor's operations.
- Provide the necessary precautions to control the SPC/Contractor's operations.

2.3.5 Young People

As per SAM3A project rules, young people under 18 years old are not allowed to work on site, except if they are under apprentice contract with a company working on site.

Before access of the young person to the construction site, the SPC/Contractor must request the Owner approval with a risk assessment specific to young people.

Employers shall adopt the measures necessary to protect the safety and health of young people at work, taking particular account of the specific risks which are a consequence of their lack of experience, of absence of awareness of existing or potential risks or of the fact that young people have not yet fully matured.

Employers shall implement such measures on the basis of a comprehensive assessment of the hazards to young people in connection with their work according to Art 6/2 of the Council Directive 94/33/EC of 22 June 1994.

The assessment must be made before young people begin work and when there is any major change in working conditions.

The employer shall inform young people and their representatives of possible risks and of all measures adopted concerning their safety and health.

EU Member States shall prohibit the employment of young people for:

- Work which is objectively beyond their physical or psychological capacity;
- Work involving harmful exposure to agents which are toxic, carcinogenic, cause heritable genetic damage, or harm to the unborn child or which in any other way chronically affect human health;
- Work involving harmful exposure to radiation;
- Work involving the risk of accidents which it may be assumed cannot be recognised or avoided by young persons owing to their insufficient attention to safety or lack of experience or training;
- Or work in which there is a health risk from extreme cold or heat, or from noise or vibration.

2.3.6 Policy for pregnant women

SPCs/Contractors must adhere to the Belgian requirements regarding pregnant women according to annexe X.5-1 of the WBW (Code du bien-être). This includes a risk assessment with subsequent controls if required.

Onsite measures may include allocated car parking space, office space on the ground floor, office space with temperature control, no access to the construction site, change to work pattern to allow more frequent breaks, no heavy lifting, etc.

2.3.7 Meeting Schedule

SPCs/Contractors are required to be represented by appropriate employees at the following meetings:

Meeting name	Frequency	Agenda for H,S&W	Attendees
SPC/Contractor Pre-Mobilisation	Following package award and prior to the commencement of works	To review and close out all key EHS issues prior to commencement on site.	PMC Team Management, SPC/Contractor Management
Employee Consultation Meetings - Workers Forum	Monthly	For operatives to raise and discuss any health and safety issues. <ul style="list-style-type: none"> • “You Said – We Did” board. • Minutes issued where required. 	PMC Team Management, Workforce representatives
Directors Safety Leadership Team Meeting (Directors SLT)	Monthly	To discuss general and raised EHS issues and agree relevant actions as may be necessary. <ul style="list-style-type: none"> • Formal meeting. • Minutes issued. 	PMC EHS Management, PMC Project Director, PMC Construction Manager, SPC/ Contractor EHS Managers and Directors
Weekly Coordination	Weekly	Discuss current and planned site progress. <ul style="list-style-type: none"> • Formal meeting. • Minutes issued. • EHS is the first agenda item. 	PMC Team Management, SPC/Contractor Management
Daily Activity Briefings (DAB's)/ Nightly Activity Briefings (NAB's)	Daily / when become aware of change in risk level or change of activity	To discuss the coordinated work for the day ahead set out by the weekly plan. <ul style="list-style-type: none"> • Review the previous shift. • Confirm activity for the next shift. • Identify key hazards and controls to communicate for the workforce in the safe start briefings. <p><u>Note:</u> Day and night shifts that are working consecutively will have a handover process from the respective shifts.</p>	PMC Team Management, SPC/Contractor Management
LMRA Briefings	Daily	<ul style="list-style-type: none"> • Communicate key hazards and controls identified in the DABs/NABs. • Confirm correct competent resources present. • Confirm the workforce has the right tools, equipment and materials. • Confirm that the PMC Team LMRA is used by the workforce before work commences. 	SPC/Contractor management/ supervision All SPC/Contractor operatives
Toolbox Talks	Weekly	<ul style="list-style-type: none"> • Topic to be determined by SPC/Contractor Manager/Supervisor. • Completed by PMC Team during the course of the project. • Minimum one Occupational health and one environmental per quarter. 	SPC/Contractor Management, All SPC/Contractor operatives

Meeting name	Frequency	Agenda for H,S&W	Attendees
BOTG meeting	Weekly	<ul style="list-style-type: none"> Aim is to review the BOTGs that are still open and to develop a Safety Culture. 	SPC and Contractor EHS
Town Halls/Return to Work Briefings	As determined by PMC Team	<ul style="list-style-type: none"> Project manager communicates to the workforce key EHS messages. 	PMC Team Management, SPC/Contractor Management, All SPC/Contractor operatives
Alerts/Knowledge Shares	As determined by PMC Team	<ul style="list-style-type: none"> Communication of learnings from incidents and good practices which can be shared across PMC Team, the SPCs/Contractors and the industry. 	Distribution to relevant parties

SECTION 3 – PROJECT DELIVERY

3.1 Construction Phase (Health & Safety) Arrangements

This section of the EHS Plan addresses the arrangements for planning, managing and monitoring the construction phase activities to safeguard the occupational health and safety of all interested parties. It is to be read and implemented along with other Project documentation, particularly:

- [SAM3A EHS Minimum Requirements](#)
- [SAM3A Emergency Response Plan](#)
- SAM3A Environmental Management Plan (add link)

This section is set out in accordance with Crystal Computing's Document – 'Contractor Environmental Safety and Health Requirements' which is based on EU standards, as well as the Legal requirements from:

- The Royal Decree of 25/01/2001 'Temporary or mobile work sites',
- The Belgian Labour Act of 16 March 1971,
- The Code on Wellbeing at Work (WBW / Code du bien-être au travail) 04 Aug 1996.

According to Appendix 1 of the Royal Decree of 25/01/2001, Section A, this present EHS Plan will be amended in function of the following elements:

- Where appropriate, the changes related to the implementation modalities agreed between the intervening parties, the impact of which on wellbeing at work provides the same guarantees as the modalities originally foreseen in the plan;
- Where appropriate, the comments of the intervening parties to whom the elements of the safety and health plan concerning them have been transferred
- State of the works
- Identifying unforeseen risks or insufficiently recognized hazards
- Intervention or departure of intervening parties
- Any changes made to the design or the works.

Owner EHS related documents

- [Exhibit U](#): Construction Environment, Health, and Safety Requirements: Global Minimum Performance Requirements
- YAWN Construction Environment, Health, and Safety Requirements
- Construction Electrical, Energy Control and Commissioning Safety Program
- Construction EHS Audit Process

PMC EHS Related Documents

The following EHS documents will be provided by the PMC to all SPCs/Contractors and the latest versions should be available on the shared drive:

- Execution EHS Plan
- EHS Minimum Performance Requirements
- Emergency Response Plan
- Emergency Response Team
- Traffic Management and Logistics Plan
- Environmental Management Plan
- Fire Risk Assessment
- Site Regulation Management Plan
- Electrical Safety Plan
- Contractor LOTO Requirements
- Belgium EHS Requirements

All members of PMC and SPCs must read the Owner's document Environmental, Health and Safety (EHS) Plan prior to starting work on site and provide a tracker to allow the follow-up. The PMC, SPCs and Contractors will need to ensure that their Subcontractors are aware of the documents and will apply them.

3.2 Project Specific Health And Safety Risks

Significant site risks and the management arrangements for their control have been identified from the Pre-commencement risk register located on the drive and are identified below:

The following have been identified as specific Risks associated with this project; these have been identified from the provided Designer Risk Assessments:

Risk / Problem	Comment
Working Adjacent Owner's Operational Works	<p>All systems on the Owner's side of the building are live and must be protected, particularly from dust, noise, water and plant movements including material deliveries.</p> <p>No SPCs/Contractors will work on the Owner's side of the wall without being inducted by the Owner and Works Notification (WN) system being adhered to.</p>
Excavations	<p>SPCs/Contractors must submit a Risk Assessment to prevent danger to workers in or near excavations.</p> <p>Edges of excavations must be banked where possible, fenced and signed off. The barriers used must be consistent and be substantial as to ensure operatives are not liable to fall into them.</p> <p>All excavations need to be inspected by a competent person who fully understands the dangers and necessary precautions who will inspect the excavation at the start of each shift or after any event that may have affected their strength or stability.</p> <p>Note: No excavation can commence without an authorised permit to dig issued by the Owner and PMC Team.</p>
Crane Lifting Operations	<p>SPCs/Contractors must submit a Risk Assessment that ensures that competent people plan, supervise and carry out all lifting operations in a safe manner.</p> <p>Lifting accessories, all web slings and fibre strops should be protected with protective sleeves where they come into contact with the load that is to be lifted. This will prevent the sling/strop from becoming damaged from abrasive surfaces or sharp edges.</p>
Moving Plant and Machinery	<p>All plant and machine operators are to provide evidence of competency and confirmation from their employer that they are fit to operate the equipment.</p> <p>All plant and machine operators are to follow the requirements of their approved Risk Assessment and the project requirements.</p> <p>All plants and machines must be inspected daily before use and provided with a plant passport to be filled in daily after the inspection.</p>
Concrete Works	<p>Suitable working platforms must be constructed with a full height and intermediate guardrail to provide a safe place of work for concrete works, i.e. pouring, vibrating, surveying or starter bolt positioning.</p> <p>Trained personnel must be wearing 5 Point PPE, goggles, face shield and long sleeves and must complete cutting of lacers, threaded bar and mesh reinforcing.</p> <p>During ready mix concrete works PPE must be worn including goggles for areas being delivered or compacted using vibratory tools, preventing splash into eyes. Barrier creams will be supplied by the SPC/Contractor and must be used to prevent skin irritation of hands.</p> <p>Appropriate clothing must be worn to prevent wet mix making contact with the skin and thus preventing skin irritation and concrete burns.</p> <p>These Specific PPE must be worn during works when wet concrete has set and produces dust and during the process of adding the metal fibres to the concrete mixer.</p>
Falls from Height	<p>SPCs/Contractors need to submit a Risk Assessment for the use of all fixed scaffolding, mobile towers /access platforms.</p>

Risk / Problem	Comment
	<p>If during the works a SPC/Contractor is creating a fall from height risk, they are responsible for the installation of a collective protection to prevent it.</p> <p>Ladders Last and ladder use must be formally justified before a ladder permit is issued</p>
<p>Mobile Elevated Work Platforms (MEWP)</p>	<p>During the works in and around the building MEWPs will be used and in close proximity to walkways and other trades. It is essential that SPCs/Contractors segregate their works at height from others.</p> <p>When machines are working at height in the same area they must be segregated to protect others in the areas where barriers can not be used; the SPC/Contractor must provide a safety Spotter.</p> <p>MEWPs are only to be operated by a trained competent operative and signed with the SPC/Contractor's name and details clearly displayed. Before use of a MEWP daily inspection must be performed and the plant passport filled in.</p> <p>The role of the safety Spotter is :</p> <ul style="list-style-type: none"> • To stop and assist others safely get around the works. • To act as emergency response if an operative is injured or becomes trapped, the spotter must know how to operate the platform to the ground to effect a rescue if required. <p>A Spotter will be needed to control a maximum of 4 MEWPs working in the same area. If these ones are not in the same area an assessment will need to be done to define the numbers of MEWPs that can be controlled by one Spotter depending on the area and the type of work.</p>
<p>Use of Handheld Grinders</p>	<p>During the scope of works concrete and metal disk grinders will be used. The SPC/Contractor must ensure that acts and omissions are assessed and managed, including noise, dust and flying sparks.</p> <p>No modification of tool safety protections is allowed.</p> <p>Where possible spark protection bays should be considered.</p> <p>All personnel must wear goggles when working with grinders (Glasses are not sufficient).</p> <p>Only a competent person can mount an abrasive wheel. When using an abrasive wheel remember the following:</p> <ul style="list-style-type: none"> • Only use reinforced disk. • Check the max speed of the disk is faster than that of the machine spindle. • Adjust the guard to expose the minimum wheel surface necessary for operations. • Be aware of others in your area or walkways and don't put them at risk. • Always be aware and ensure there is a spotter on the ground when using a grinder at height. • Use the correct disk for the work you are undertaking • Use appropriate PPE • Ensure fire extinguisher is available in the area and a 'fire watch' is put in place due to residual heat.
<p>Manual Handling</p>	<p>SPC/Contractor must avoid manual handling where necessary, using mechanical means. All SPCs/Contractors must submit a manual handling Risk Assessment. Manual handling is limited to 23 kg (man) or 16 kg (woman).</p>
<p>Hand Arm Vibration</p>	<p>SPC/Contractor must submit a Risk Assessment for the use of all powered hand tools and plants, and carry out Toolbox talks on this subject. Measurement must be taken to avoid exceeding exposure limits on the use of the tools.</p>

Risk / Problem	Comment
Working in Live Switch Rooms	When work is required to be carried out in live switch rooms a permit to access will be required. Only the persons named on the permit will be given access. Request for Switch Room access will require 48-hour notice. All necessary precautions must be taken before work can start, such as LOTO, adequate PPE, permits.
Slip, trip or fall	Risk related to the ground surface, floors or other building surfaces that are slippery, uneven, sloping, changing or are cluttered with objects such as building materials, power tools or equipment. Risk also when using a ladder. SPC/Contractor is requested to clean all spills immediately, mark spills and wet areas, remove obstacles from walkways and always keep walkways free of clutter, securing (tacking, taping, etc.) mats, rugs and carpets that do not lay flat, always close file cabinet or storage drawers, have a good cable management or overing cables that cross walkways, keep working areas and walkways well lit.

3.2.1 Construction Phase Hazard Identification & Risk Assessment

Prior to work start each SPC/Contractor must identify significant hazards and prepare a Risk Assessment and Method Statement (RAMS) for each work activity. SPC/Contractor must submit their RAMS using the approved SAM3A template.

All RAMS must always be reviewed for scope and adequacy, by two PMC managers (Construction Manager/Package Manager and EHS) and one EHS manager (CSF) before associated works can commence.

The RAMS will then be approved and signed off by the EHS Manager (CSF).

A sufficient time period must be allowed for this process to be completed to minimise disruption or prevent delays to the programme of works, as such all SPCs/Contractors are required to submit their RAMS at least 2 weeks prior to the agreed start date of the work activity.

Where a RAMS is reviewed and deemed to be insufficient or incomplete (either in content, clarity, depth or scope of information) the SPC/Contractor must amend it and re-submit it for review and approval prior to work starting.

All RAMS are to be recorded on a master schedule which should identify the RAMS title, revision number and the scope of which it covers

Copies of all SPC/Contractor RAMS will be recorded and maintained within the project office in both electronic and hard copies. The updated register should be available on demand. All RAMS must be reviewed every 3 months or more frequently when the Method Statement and/or project circumstances change.

RAMS Briefing

Every RAMS must be briefed to all operatives. Before starting work, this briefing must be recorded by the SPC and all operatives to sign stating they understand and have received the RAMS.

If at any point the RAMS requires amendment, the amendment must be re-briefed to the operatives and recorded as an amendment.

3.2.2 Temporary Works

Definition of Temporary Works

Any structure used during the construction of the permanent works that does not form part of the finished permanent works, or elements of the permanent works themselves in a temporary condition prior to structural completion is classified as Temporary Works.

This includes: falsework, formwork, shoring, needling, gantries, structures undergoing demolition, crane supports, excavation support, temporary bridging, protection screens, weather enclosures (sheeted scaffolds), sign boards, etc. This is to be done in accordance with European Standard EN 12812.

The PMC Team is required to appoint a competent Temporary Works Coordinator. Evidence of this appointment will need to be provided.

All temporary works are to be undertaken and maintained in accordance with the Temporary Works procedures. A temporary works register must be completed and maintained on site.

SPCs/Contractors are required to demonstrate by calculation that temporary structures are capable of withstanding the loading required. Design information including calculations must be supplied min. two weeks in advance to allow the Owner and PMC Team to review the information otherwise the start of the operation may be delayed.

The following Temporary works will be installed on this Project:

- Earthworks: trenches, excavations, temporary slopes.
- Structures: formwork, falsework, propping, shoring, edge protection, temporary bridges, site hoarding and fencing, signage.
- Equipment and Plant Foundations: crane bases and supports, anchors and ties for hoists, cranes and piling platforms.
- A competent person from the PMC, SPC and any party involved with Temporary works shall carry out general daily inspections related to temporary works. **The appointed Temporary Works Coordinator** (or appointed Inspector) **needs to control and monitor all temporary works**. The Temporary Works Controller must keep a record of all the inspections.

3.2.3 Temporary Services

The following temporary services will be provided:

Service	Location
230 VAC power distribution	General Internal site distribution - refer to Logistics plan. For external trades from a generator supplied by a SPC/Contractor.
415 VAC power supply for welding equipment and flushing equipment	To be determined by the SPC/Contractor and highlighted during tender.
Water Supply	General site distribution - refer to SAM3A Logistics plan.

Electrical installations and equipment

All electrical supply installations must follow the EU Directive 92/57, the RGIE (latest version), the Royal Decree 25/01/2001 Temporary and mobile construction sites, and the PMC Team electrical policies and procedures.

All electrical leads brought onto the project are to be identified with the SPC/Contractor's name and date of last inspection. Leads found without identification and last inspection date will be removed from site.

It is essential that the type of equipment selected is suitable for use on a construction site.

All electrical equipment is to be tested, identified and recorded onto a plant register by the SPC/Contractor. A copy of all plant registers will be maintained within the Project Office.

Portable electrical equipment and its power leads face harsh conditions and rough use on construction sites. Equipment can be damaged and can be dangerous.

Modern double insulated tools are well protected, but their leads and plugs are still vulnerable to damage and should be subjected to regular inspections.

The operator should check all electrical equipment before first use, then inspect it weekly together with the equipment it is supplying.

Also all electrical equipment will be subject to formal planned maintenance and inspections by a competent electrician using the appropriate electrical test equipment:

Equipment	User Checks	Formal Visual Inspection	Combined Through Inspection and Testing
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Office equipment, e.g. computers	No	Yes, every 2 years	Yes, up to 5 years
Earthed Equipment e.g. kettles	No	Yes, every 6 months	Yes, every 12 months
Hand held tools	Yes, prior to use	Yes, every 2 – 4 weeks	Yes, every 3 months
Cables / leads	Yes, prior to use	Yes, every 2 – 4 weeks	Yes, every 3 months
Fixed Installations	No	Yes, earth loops and RCD's every 12 months	Yes, every 5 years

Temporary lighting

The SPC/Contractor to ensure that their working environment is foreseen with suitable and sufficient safety lighting in:

- Access and egress to every work place on ground level, with a minimum of 50 Lux for the walkways;
- Every traffic route;
- Every dangerous opening;
- Every pedestrian route;

Provision will also be made for Emergency lighting which needs to respond to the Belgium legal requirement for the walkways in case of mains / power failure.

SPC/Contractor must provide adequate task lighting to undertake their works safely.

Note: Halogen lamps can't be used in any form.

Other Temporary services

- All drainage systems and manhole covers will be identified, blue for surface water and red for foul water systems.
All waste connections and toilet sewage will be correctly connected to the foul water drainage system (red) and not the surface water system (blue).
All foul water connections will be done with permission from the local sewerage undertaker.
- Provisions must also be made for disposing of chemicals from activities such as flushing, and washing out paint brushes.
- A competent person must install and manage all gas supplies and maintenance.

3.2.4 Plant and Equipment

General

- Plant, machinery and work equipment must be supplied, operated and regularly maintained in accordance with Belgian legislation and industry best practice. The plant is subject to pre-use checks and must have up-to-date certificates of thorough examination.
- Each individual item of plant or equipment must show/contain:
 - Plant registration / model number.
 - Name of SPC/Contractor and contact details.
 - Week number or week commencing date.
 - Record of daily checks by the plant operator. This form must be completed daily and maintained with the plant.
 - The date of the last thorough examination test.
 - This form must be completed daily and returned weekly at the Weekly SPCs/Subcontractors Health and Safety Meeting.
- All plants and equipment currently on site or plant and equipment that is to be brought onto the project will be required to complete a Plant Passport. [PLANT PASSPORT INFO](#)

- An authorised maintenance schedule needs to be maintained on site. Evidence of periodic checks from plant hirers, that the plant has been adequately maintained, will be obtained and maintained on site.
- A record of all items of plant listed above brought onto site, together with details of their operators, will be maintained.
- As per Belgian regulation the minimum age for plant operators is 18 years.
- Any persons using work equipment must have received adequate training, instruction and information for that equipment.
- The plant will only be operated by a trained person i.e. who holds the valid competency card for the equipment confirming that they are competent to operate the item of plant in accordance with articles 5 and 12 of the EU Directive 89/391.
- All operators must be subject to the specific medical screening required by local regulations.
- All mobile plants and excavators must display pedestrian warning signs at their rear, warning pedestrians to “keep clear” of the potential crush zone.
- Spotters must be employed at pinch points and during reversing operations

Small Plant and Equipment

- The SPC/Contractor is responsible for the use and maintenance of all plants and equipment provided on site for use by their workforce.
- SPC/Contractor must ensure that all trailing electrical leads and hoses are suspended where possible and are maintained so as to minimise tripping hazards.
- Battery-powered electric tools are preferred over 230 VAC cable power equipment.
- The supply cable to transformers must not exceed 2 metres in length.
- The SPC/Contractor must ensure that any electrical power supply includes a residual current device (RCD/GFCI) appropriate to the hazard and inspection is carried out by a Notified Body. A competent person from the SPC/Contractor needs to test the power supply circuit including RCD before being brought into use on this site and at regular intervals not exceeding one month.
A label must be attached to the RCD including the date of test and the name of the person who has conducted the test.
Any lead that is damaged must be disconnected and removed from site.
- Portable electric lights are not permitted unless fixed to a stable tripod, stand or to the structure

Heavy and Plant Movements and Working within heavy plant working areas

- All large mobile plants and excavators must display pedestrian warning signs at their rear warning pedestrians to keep clear. These signs must be in French, Dutch and English.
- Piling rigs are working to a planned schedule.
- The Mat is inspected daily on a Piling Mat Inspection Form, to ensure the mat is in good condition.
- Noise sampling will be completed randomly.
- Frame steer dumpers, delivery vehicles, concrete pumps and mixers are moving around the site along with normal site traffic like tele-handlers and excavators/compactors. Good traffic management and segregated walkways must be maintained, when necessary, spotters should be positioned at key crossings.
- SPCs/Contractors must ensure they plan and coordinate their traffic routes around the task areas by using the Logistics plan. Only after permission from the PMC Logistics Manager can these be changed.
- Banksmen must be employed at pinch points and during reversing operations.
- **Visibility:** Mobile construction plants including: all-terrain forks, dumpers, excavators, bucket loaders and frame steers must all have a reversing camera and fisheye mirrors on the vehicle.

3.2.5 Traffic Management, Logistics and Transport

The Traffic Management and Logistics Plan is a separate PMC document located on the drive. This plan is updated in the Logistics meeting weekly and distributed project wide by the PMC Logistic Manager.

Also each SPC/Contractor has to provide its own Traffic Management and Logistics Plan to be reviewed, incorporated and coordinated by the PMC with the overall Traffic Management and Logistics Plan.

Vehicle Movements

The Belgian highway code is applicable on the SAM3A site. Moreover, the site speed is limited to **10 km/h**. SPCs/Contractors and delivery drivers must follow this requirement.

All site vehicles must use orange flashing beacons when on site. All persons are required to wear high visibility vests or coats, thereby reducing the potential for contact with vehicles.

The SPC must appoint a nominated person based on site to coordinate all vehicle deliveries and collections to the site.

The SPC must have a competent Banksman/Traffic Marshall to supervise vehicle movements related to their tasks and all reversing manoeuvres. Details of the vehicle movements are set out in the site Logistics plan.

Significant traffic safety hazards

A specific site entrance will be used as specified in the site Logistics plan. All pedestrian and motor traffic **MUST** remain segregated within the site boundaries.

The site is to be planned and arranged by the SPC in such a way that it will have the necessary control measures in place to reduce the risk of an accident involving vehicles and the transportation of materials. This will be checked by the PMC.

Pedestrian walkways

The SPC must, as far as is reasonably practicable, endeavour to separate vehicle and pedestrian flows.

Separate paths or walkways must be provided for pedestrians. These aisles should be wider when larger groups of people are expected to use them. This vehicle/pedestrian segregation will be checked by the PMC.

Pedestrians should have crossing points that are clearly visible to both the driver and the pedestrian. Pedestrians have right-of-way at all times.

In periods of high activity (start and end of the working day, lunch time) where pedestrian traffic is heavier, additional measures should be taken by the SPC, such as:

- A Traffic Marshall to be placed at designated crossing points. In addition these crossing points must be marked with barriers or guardrails.
- Limitation or even ban on vehicle traffic in areas that pedestrians are likely to use.

Pedestrians and vehicles must have separate entrances to buildings. Pedestrians are not to use Cargo doors for entry to buildings.

Barriers should be placed at entrances and exits to prevent pedestrians from entering the path of traffic.

Pedestrians should wear high visibility jackets or vests in areas where vehicles are also working.

Deliveries

See specific section hereafter

Transport

All loads transported onto or around the site must be secured at all times until the unloading destination is reached. No one is to travel on the deck of a moving vehicle under any circumstances.

3.2.6 Delivery and Removal of Materials and Work Equipment

All deliveries to the project must be booked in via the on-site logistics team.

Whenever the PMC/SPC/Contractor is arranging a delivery to the SAM3A Project or loading a vehicle for subsequent unloading on site, goods must be loaded in such a way that they can be unloaded safely.

Under no circumstances can anyone access the back of a vehicle without suitable edge protection in place.

An offloading system for deliveries must be included in the RAMS and signed off.

Delivery routes must be defined and respected.

- Link to SAM3A form for Delivery and Removal of materials (add link)

All persons exposed to risk of fall whilst loading or unloading delivery vehicles must be adequately protected by fall arrest or fall prevention equipment.

Collective fall protection is preferable to personal fall protection.

Typical solutions include vehicle safety nets, air bags, docking bays, a 'Combisafe Loading System' etc.

All persons using personal fall protection equipment must be adequately trained.

SPCs/Contractors must advise all companies supplying goods and making deliveries to the site or removing materials from site of the project PPE requirements.

All vehicles should be isolated with ignition switched off and keys removed. The right to hold ignition keys for delivery vehicles is reserved in a locked box during the delivery cycle.

3.2.7 Manual Handling

Mechanical means must always be considered before manual handling.

Where manual handling is required, persons need to have received training in manual handling appropriate for the work they are undertaking.

All Manual Handling activities must be the subject of a job specific RAMS. These must be made with a view to eliminating or reducing the manual handling as much as possible with training in Manual Handling techniques frequently carried out in the form of Tool Box Talks, etc.

Whilst some manual handling cannot be avoided every opportunity should be given to either eliminate or reduce any manual handling by a choice of the following methods.

- Use of wheeled bins
- Flatbed trolleys
- Sack trucks
- Pallet trucks
- Pulleys
- Crowbars
- Other mechanical means

It should be noted that this list is by means not exhaustive and other means can and should be utilised as appropriate to reduce manual handling activities as much as possible.

SPCs/Contractors need to comply with the Belgian Royal decree 12 August 1993 and the EU Directive 90/269 - manual handling of loads, maximum single person lift of 23kg (man) or 16 kg (woman).

However the SPCs/Contractors should also be aware that this is not an all-encompassing restriction. Each person is an individual with their own limitations.

It will therefore be a prerequisite for SPCs/Contractors to review the activities with available access restrictions to ensure material is able to be fitted with due recognition of the Manual Handling Regulations.

3.2.8 Storage

All SPCs/Contractors will be given by the PMC a laydown area for their materials.

The laydown area MUST be segregated by an approved fencing system agreed with the Owner and PMC Team.

The fence must be clearly signed with the SPC/Contractor details.

All laydown/storage areas are to be kept in a clean and tidy condition with all walkways clearly designated and maintained.

All material storage areas must be safe, secure and weatherproof to prevent damage and theft.

All SPCs/Contractors using long lengths of materials, pipe conduit, etc. will be required to use pipe racks on wheels as a minimum.

The Owner and PMC Team will monitor and review the existing site layout, and the existing environment, including the Risk Assessment and the Logistic Plan on a regular basis.

This process will be done through Weekly Housekeeping walks and through a Tracker for close follow-up of the storage and housekeeping issues.

Materials must be stored in accordance with the Owner EHS Minimum Requirements. Ensuring that materials, tools and equipment are not placed directly on the ground wherever practical. Instead storing materials, tools and equipment on Pallets, Trolleys, Stillages, Cabinets, Trailers, Racking and in Tool chests. Where trailing leads and cables are used, these must be suspended from above.

Any materials, tools & equipment that need to be stored directly on the ground, must be done so without additional risk to health & safety or the environment. SPCs/Contractors will ensure that all storage areas will have appropriate signage in place and have a fire point containing a suitable fire extinguisher(s).

3.2.9 Control of substances hazardous to health (COSHH)

Prior to using hazardous substances, the hierarchy to be followed is first to eliminate, then substitute and if that is impossible, reduce the substance.

Where harmful substances cannot be substituted, each SPC/Contractor will be required to maintain and issue a COSHH register with what they intend to use on the project.

- Approval to introduce Hazardous substances
 - Prior to introduction on site, the SPC/Contractor will submit to the PMC EHS manager an usage request, including SDS, for approval to introduce hazardous substances on site.
- Risk assessment, part of RAMS
 - For each hazardous substance or process identified, the SPC/Contractor responsible must produce a task specific Control of Substance Hazardous to Health (COSHH) Assessments and issue a Material Data Sheet for the substances. These will be maintained within the project office.
 - When using Hazardous substances the SPC/Contractor must provide evidence that the findings of each COSHH Assessment have been communicated to their operatives in their native language and other parties affected by the use.
 - Each SPC/Contractor has to maintain their own COSHH file onsite, and share it on a weekly basis.
- Storage
 - Each SPC/Contractor will establish Facilities on site for the safe storage of hazardous materials in accordance with legal requirements, SDS, or Owner requirements (the most stringent shall apply). Proper storage facilities will have to meet the requirements.

Legal reference on Hazardous Substances

Book VI – Title 1 to 4 of the Code on WBW /Code du bien-être au travail “Chemical, carcinogenic, mutagenic and reprotoxic agents”

Book VII – Title 1 of the Code on WBW /Code du bien-être au travail “Biological agents”.

NOTE: All **SPCs/Contractors have to clearly** identify each drum and each IBC container with the chemical inside it. The PMC / Owner will provide an identification template.

Special attention must be given and control measures implemented for the use and storage method of the following substances / activities to prevent the risk to the Health of third parties and other operatives:

Activity/Substance	Control Measures
Concrete	COSHH Assessments / PPE / Barrier creams
Cement Dust (Silica)	COSHH Assessments/ Water Suppression/Ventilation systems/Vacuum/PPE
Concrete Admixtures	PPE and natural ventilation exclusion of others.
Petroleum, Oils, Lubricants	Containment/Storage /COSHH assessment

Activity/Substance	Control Measures
MDF Dust	Now classed as Carcinogenic - not to be used if possible
Rockwool	PPE
Solvent Glue	Adequate ventilation/PPE
Red Oxide/Galvafruid/ Solvent Paints	COSHH Assessments/Ventilation
Soldering/Welding/Gas cutting	COSHH Assessments/Ventilation
Dosing Chemicals	Certificate to Discharge into water supply will be required/COSHH Assessments
Flushing Chemicals	Certificate to Discharge into water supply will be required/COSHH Assessments
Hot Bituminous Materials	PPE

3.2.10 High risk with LPG & Acetylene - Storage and use

Particular attention must be given to LPG and Acetylene storage and use.

LPG

LPG and highly flammable liquids need to be stored in a secure well-ventilated cage, and kept separated from other materials. Additional warning signs will also be put up to warn operatives of the risks.

All cages must be adequately identified with appropriate pictograms and have the correct fire fighting measures in place as per the SPC/Contractor Fire Risk Assessment signed off by the PMC team. When not in use LPG Cylinders must be kept in their storage areas, this includes empty cylinders. The use of LPG will be under strict control and subject to approved Method Statements and Risk Assessments.

Acetylene

Acetylene is an extremely flammable gas and can form an explosive atmosphere in the presence of air or oxygen.

Acetylene poses an additional hazard to other flammable gases as it is also unstable. Under certain conditions, even in the absence of any air or oxygen, it can decompose explosively into its constituent elements, carbon and hydrogen.

A risk assessment must be undertaken and suitable controls put in place.

Additional precautions should be taken with acetylene equipment and storage cylinders. This includes the incorporation of flashback arrestors to prevent a flashback reaching the acetylene cylinder and triggering decomposition, which could lead to an explosion.

Virtually all welding and cutting work using acetylene can be carried out using different products which present less of a risk to firefighters and the wider community if they are involved in fire.

3.2.11 Storage of Fuels, Oils and Chemicals

Each SPC/Contractor that uses fuels, oils and chemicals must store them away from drains and watercourses, to prevent them from entering the ground water through accidental spillage. They will also be stored in well ventilated areas and covered to prevent exposure to adverse weather conditions.

In addition each SPC/Contractor that uses all fuels, oils and chemicals will store them in specific bunded areas (110% of the total volume of the contents) or in double skinned containers which are secure and safe from accidental damage and vandalism, and required to have a dedicated spill kit located close to them.

Fuel storage needs to be placed in separate and lockable containers on secondary bunds for security and to retain any spillage or leakage.

Where it is necessary to store fuel oil, petrol or any other combustible liquids on site SPCs/Contractors must make all necessary arrangements to isolate such storage from any source of ignition or impact and provide containment and clean up facilities in the event of any spillage. Petrol may only be stored in and dispensed from approved metal safety cans. Use only approved containers that are properly labelled.

3.2.12 Working at height (WAH)

Legal reference on Working at Height: Book V – Title 5 of the Code on WBW (Code du bien-être au travail), “Equipment for temporary works at height”.

The requirements in this section apply to all work where there is a risk of fall, even at or below ground level.

WAH includes: loading/unloading materials from lorries, installing site cabins and stores, scaffolding, erection and dismantling of mobile towers, steelwork erection, brickwork, cladding, roofing, services installations, plant and equipment installation, etc.

The PMC team adopts the following standard about WAH activities: 100% fall protection is required for all WAH. All WAH must follow the PMC procedures, must be risk assessed and appropriate work equipment selected and used.

WAH must be properly planned, organised and sequenced.

The workers involved in WAH must be competent.

The following hierarchy of measures must be implemented by SPC/Contractor for safe WAH:

- **AVOID the risk** by not working at height: where it is reasonably practicable to carry out the work safely other than at height, do so.
- **PREVENT falls**: where it is not reasonably practicable to avoid WAH, you should assess the risks and take measures to allow the work to be done whilst preventing so far as is reasonably practicable people or objects from falling. This might include ensuring the work is carried out safely from an existing place of work or choosing the right work equipment to prevent falls.
- **MITIGATE the consequences of a fall**: where the risk of people or objects falling still remains you should take steps to minimise the distance and consequences of such falls. It also involves picking and using work equipment.

Equipment for WAH must be properly inspected and maintained.

WAH equipment must be inspected before the first use, at suitable intervals not exceeding 7 days, and also when any exceptional circumstances liable to compromise the safety of the work equipment have occurred.

It should be noted that according to book IV, title 4 of the Code on WBW (Code du bien-être au travail), it is mandatory to have cranes and lifting equipment inspected on a 3-monthly basis by a so-called SECT (Services Externes pour les Contrôles Techniques sur les lieux de travail - External services for technical inspections in the workplace), which is an external and independent Notified Body. This includes Forklifts, Elevators, Hiabs and MEWPs.

Scaffolds

Scaffolds can only be accessed with a valid scafftag, according to the Belgian legal provision working at height and need to be placed at the access point.

“Scaff tags” or similar tags will be used to provide a status report for the equipment with the following details:

- Name of the inspector
- Date of inspection
- Maximum permissible load

MEWPs

- The present MEWP requirements must be read along with the “International Technology MEWPs Standard – March 2020”.
- All operatives in MEWP will be trained and utilise a full body harness and restraint lanyard attached to designated anchor point at all times.
- All boom type MEWPs must be fitted with a secondary guard device to prevent potential crush injuries.
- Whilst undertaking works at height, tools must be tethered by equipment specifically designed for the tools. The tool tether must not increase the overall risk of the work activity.
- MEWP baskets should be kept tidy and clean of rubbish or debris. Material should be stored e.g. in bins so that they do not present a trip hazard.

Note: MEWPs are not to be used for lifting materials.

Fall Restraint for MEWP:

All operatives when working in a MEWP including scissor lifts and boom lifts must wear a harness and lanyard and be secured to a suitable connection point.

The use of temporary or permanent structures for harness clipping is prohibited.



Fig.: Harness and lanyard example

Ladder

- Use of a ladder is the last option and must be justified before using it. Assessment of the request will be done to verify the requirement before issuing the permit. Any ladder used on site must be subject to statutory inspection and tagging and a pre-use check carried out. No domestic use ladders or steps will be authorised for use on site.

Worker competency for WAH:

- Mobile Scaffold – Correct category of the Prefabricated Access Suppliers Association (PASMA)
- Scaffold – Correct category of Construction Industry Scaffold Association Scheme (CISRS)
- MEWP – Correct category of the Independent Powered Access Association (IPAF) or equivalent with prior PMC Team agreement

Work equipment legal control

- Legal References: Code WBW (Code du bien-être au travail), Book IV - Title 1, 2, 3, 4 and 5.
- The control of the following plants and equipment have to be performed prior to their use on the construction site. See table hereafter:

Description	Control by	Periodicity	Legislation
Lifting equipment (hoist, gantry crane, mobile crane, tower crane, etc.)	SECT	- Before first use - 3 months - 1 year (mechanism and structure)	- European Directive 2006/42/CE - RGPT, art. 280, 281 - Code WBW (Code du bien-être au travail) : Book IV - Title 4

Description	Control by	Periodicity	Legislation
Lifting gears (chains, hooks, slings, spreader bar, etc.)	SECT	- Before first use - 3 months - 1 year	- European Directive 2006/42/CE - RGPT, art. 280, 281 - Code WBW (Code du bien-être au travail) : Book IV - Title 4
Suspended mobile scaffold, basket, cradle, etc.	SECT	- Before first use - 3 months - 1 year	- Directive 2006/42/CE - RGPT, art. 280, 281, 452, 453 - Code WBW (Code du bien-être au travail) : Book IV - Title 5
Other lifting equipment (worksite lift, freight elevator, mobile elevated work platform)	SECT	- Before first use - 3 months - 1 year	- Directive 2006/42/CE - RGPT, art. 280, 281 - Code WBW (Code du bien-être au travail) : Book IV - Title 5
Self propelling handling appliance (forklift, earthmoving plant, stacker, self-propelled platform)	Comp. Person	- Before first use - 3 months - 1 year	- Directive 2006/42/CE - Code WBW (Code du bien-être au travail) : Book IV - Title 4
Scaffolds	Comp. Person	- Before first use or after an event that may affect the stability - Weekly	- Code WBW (Code du bien-être au travail) : Book IV - Title 5 Section V, Sub-section IV
Personal Protective Equipment (safety harness, lanyard, fall protection devices, etc.)	SECT	- Before first use - 1 year - After a fall	- Directive 89/686/CEE - Code WBW (Code du bien-être au travail) : Book IX - Title 2
Ladder, emergency ladder, stairs	SECT	- Before first use - 3 months - 1 year	Code WBW (Code du bien-être au travail) : Book IV - Title 5
Life Lines	SECT	- Before first use - 1 year	Code WBW (Code du bien-être au travail) : Book IX - Title 2
Worksite electrical connection	SECT	- Before first use - 13 months	RGIE, Art. 270 and 271
Metal pressure gas cylinder	SECT	- Before first use - ADR appendix A: * Normal: 5 years * Except for gas 1, 2A, 2O and 2F: 10 years	- Directive 2008/68/CE - Directive 2010/35/UE - RGPT art. 358 - ADR - Appendix A
Acetylene metal pressure gas cylinder	SECT	- Before first use - ADR appendix A, porous material: * not monolithic: 5 years * monolithic: 10 years	- Directive 2008/68/CE - Directive 2010/35/UE - RGPT art. 358 - ADR - Appendix A

Upon request of the CSC or the Owner/PMC Team, the SPC/Contractor will present the certificates of the control performed by a third party.

The SPC/Contractor will implement a procedure which allows operators to ensure that the equipment was checked and the control is still valid (e.g. sticker with validity date, colour tag). All the subcontractors working on site will implement the same procedure.

Once a colour code system is implemented, all SPCs/Contractors inc. Subcontractors must use the same system to avoid confusion.

For MEWP inspections, the SPC/Contractor should cover at least the [Owner's checklist](#) expectations.

3.2.13 Fixed Scaffolding

Fixed Scaffolding (including system scaffolds - Layer, etc.)

All SPCs/Contractors are responsible for all scaffolding operations within their packages.

- All fixed scaffolding must conform to European standard EN 12811/1 and RD 31/08/2005 for Belgian legislation Book IV - Work equipment, Title 5 - Work equipment for temporary work at height, Chapter III - Specific provisions concerning the use of scaffolding, which applies to all scaffolding, from the most basic to the most complex structures including system structures.
- All fixed scaffolds must be erected according to the manufacturer's recommendation and method statement.
- All fixed scaffolding must be erected, altered or dismantled by trained and experienced persons under competent supervision.
- All Scaffolders Record Cards will be recorded and maintained on a register kept within the Project Office.
- The Scaffolding Company is required to issue the PMC Construction Manager a handover certificate, to confirm a competent installation. The handover certificate will be kept on site.
- From the day of handover, competent/trained persons need to inspect fixed scaffolds at intervals of no greater duration than every 7 days / or sooner should the scaffold has been altered, damaged or affected by / been subject to extreme weather conditions or any other event that might have compromised its integrity.
- The Fixed Scaffold Inspection Report should be used to record inspections of fixed scaffold on all PMC Team sites, unless authorisation from the PMC Team EHS Department has been given otherwise to use a different report template.
The Temporary Works Controller (or appointed inspector) must undertake this inspection.
- Appropriate measures following risk assessment need to be put in place to prevent materials falling off scaffolds.
- All scaffolds that are in stairwells or walkway corridors must ensure that the ledgers and standards are protected with foam as a minimum.
- No scaffold can be handed over or used without end and nipple caps installed.

3.2.14 Mobile Towers

All SPCs/Contractors bringing Mobile Scaffold Towers onto site must ensure that they are:

- Erected by a trained and competent person.
- Erected in accordance with the manufacturer's recommendation and Method Statement.
- Mobile scaffolding access towers and podiums must be inspected following erection and prior to use.
- A suitably competent and trained person using the scaff-tag system must undertake the inspection.
- Mobile scaffolding access towers that are to remain static should be further inspected at intervals of no greater duration than every 7 days / or sooner should the scaffold have been damaged or affected by / been subject to extreme weather conditions or any other event that might have compromised its integrity.
- The results of inspections need to be recorded using the 'scafftag' system – and a record of the equipment inspected maintained using the PMC Mobile Scaffold Access Tower & Podium (Inspection) Register.
- Completed inspection registers must be forwarded to the PMC via the SPCs/Contractors weekly meeting - NB: the completion and maintenance of these registers is part of the Subcontractors Safety League scoring criteria.

The competent / trained PMC Manager or Site Safety Coordinator must undertake daily inspections to ensure compliance.

3.2.15 Podiums

Inspections of mobile podiums must be undertaken in accordance with the PMC Team Work at Height Policy requirements. Persons undertaking inspections of mobile access scaffold towers or podiums must be appropriately competent and experienced with respect to the type of platform and / or the complexity of the structure that they are inspecting (provided they have attended a relevant (PASMA or equivalent Belgian inspection course).

HOP UPS ARE NOT PERMITTED ON THE PROJECT UNLESS APPROVAL FROM THE PMC AND OWNER ON THE BASIS OF A THOROUGH RISK ASSESSMENT TO DEMONSTRATE REASON FOR USE. PERMIT SHALL BE REQUESTED TO USE HOP UPS.

Important: Non fixed guard rail access equipment must only be used for light work and where it is impractical to use fixed guardrail edge protection. A Risk Assessment needs to demonstrate why ladders are the only alternative for the particular task and a permit must be requested and issued.

3.2.16 Lifting Operations

The following items of lifting equipment can be used on this project:

- All Terrain Mobile Cranes / Excavators
- Telehandlers
- Fork Lift Trucks
- Hiab/Truck mounted cranes
- Lifting Beams / Hoists
- MEWPs / Boom Lifts
- Spider Cranes
- Spider MEWPs

It should be noted that according to book IV, title 4 of the Code on WBW (Code du bien-être au travail), it's mandatory to have cranes and lifting equipment inspected on a 3-monthly basis by a so-called SECT, which is an external and independent Notified Body. This includes Forklifts, Elevators, Hiabs and MEWPs.

Crane Lifting Operations

All project crane lifting operations are subject to specific safe lifting requirements in accordance with the Belgian legislation covering vertical transportation, "Lifting Operations and Lifting Equipment Regulations" (LOLER) and the Project safety management system.

Each SPC/Contractor must appoint an Appointed Person trained on crane lifting operations and on their work activities.

The Appointed Person will need to plan, control and supervise all lifting equipment and lifting activities and in accordance with the Project Lifting plan and Lifting Procedure.

The SPC/Contractor Appointed Person must liaise directly with the PMC/EHS crane coordinator in respect of all crane lifting operations that are to be undertaken.

The PMC/EHS/Owner and the SPC/Contractor appointed persons will hold regular crane coordination meetings. These will be attended by the PMC/EHS Lifting coordinator and the SPC/Contractor appointed person.

A written RAMS is required prior to implementation of every lifting operation (excluding material deliveries using the hoist), which clearly identifies the measures necessary to control any potential hazards and risks which may arise.

The RAMS including a specific lifting plan must be submitted by the SPC/Contractor with a minimum of two weeks in advance of the lifting operation to allow a review by the PMC/EHS/Owner.

Early submission and review of these documents are important to prevent delays to the proposed works taking place.

A sample Crane Lifting Plan Template for SPCS/Contractors can be found hereafter:

- Crane Lifting Plan [Cat 1](#) for complex lifting
- Crane Lifting Plan [Cat 2](#) for simple lifting.

A specific procedure must be developed by the SPC/Contractor for lifts on the loading bay considering its bearing capacity.

Only trained and competent personnel are permitted to operate cranes, undertake signalling or attach loads.

All safety positions such as riggers and slingers must comply with the minimum age and additional medical check requirements as per Belgian legislation.

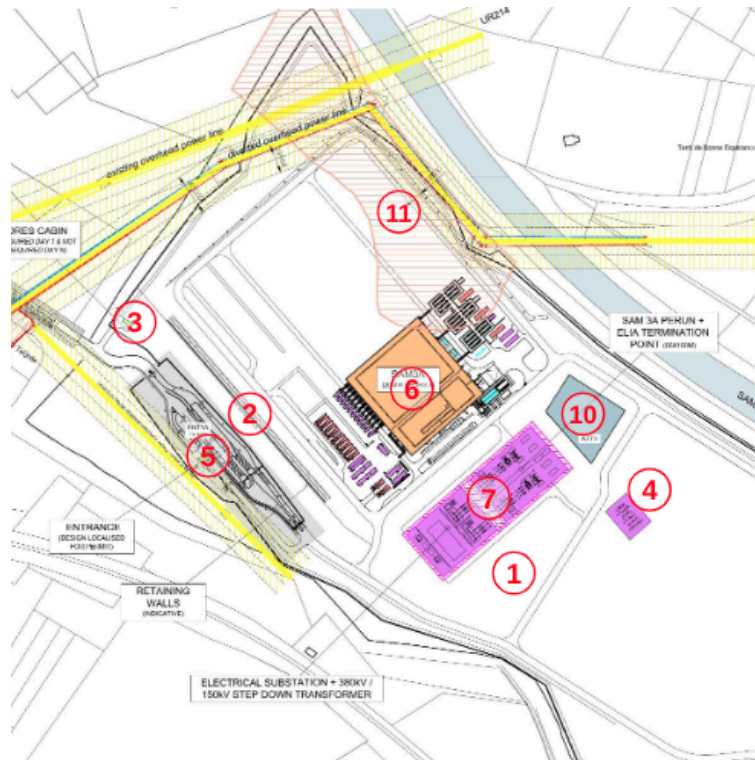
Clear communications between the crane operator and the person responsible for controlling the lift must be established e.g. hand signals or radio.

Non Crane Lifting Operations

- All lifts must be planned and documented with a basic lifting plan. This ranges from using a forklift, telehandler, excavator and truck mounted cranes (Hiab).
- An Appointed person must produce the lifting plan for these operations and needs to be responsible for the effective planning and control of their lifting operations. SPC/Contractor managers will perform a check on all lifts using the type of equipment listed above.

3.2.17 Location of Known Existing Underground and Overhead Utilities

The Owner has provided the Location of existing services.



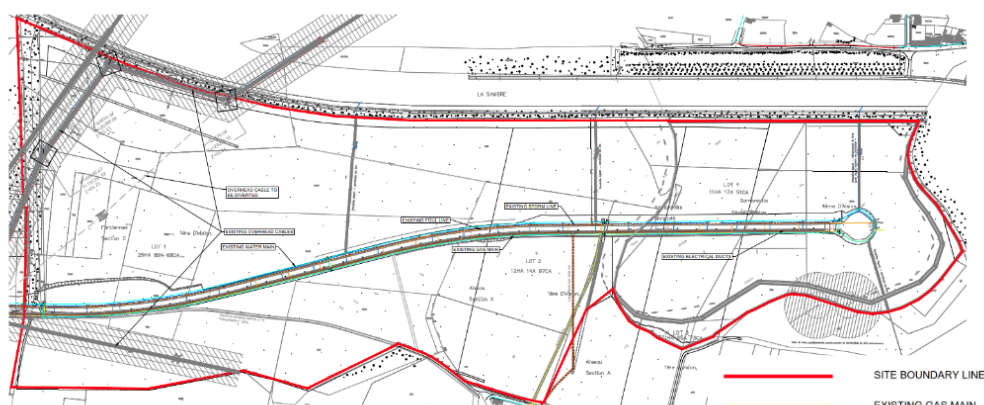
Particular attention to be given to buried underground services.

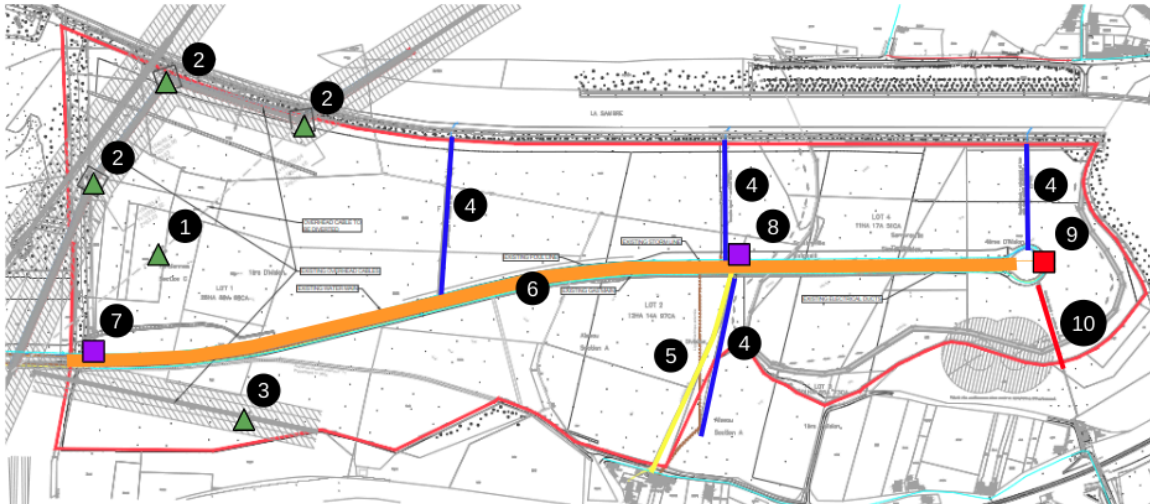
Basic utility services information is to be obtained and presented in the site drawings.

The following services have been identified on site:

- Existing electrical substation
- High voltage power lines running parallel to the boundary
- Electrical – HV (> 1000 VAC or 1500 VDC) and LV (< 1000 VAC or 1500 VDC).
- Fibre
- Fuel Tanks
- Water
- Sewage (gravity/pumped)
- Chemical Storage
- Dosage Pipework
- Existing Gas pipe (out of service)
- Existing Sewage
- Existing Surface Water drains

C





- Legend:
- 1 - Existing HV Pylon
 - 2 - Existing HV Pylon
 - 3 - Existing HV Pylon
 - 4 - Existing Surface water drains
 - 5 - Existing Gas Pipe (out of service)
 - 6 - Existing Road and Services

Any buried services and overhead power lines that are present on the site will need to be identified as hazards on the drawings and will need to be fully considered by the SPC/Contractor in their management of the site works.

The SPCs and any Contractor involved are responsible for ascertaining the exact location, nature and status of each service and isolation point prior to commencing works, i.e. implement visual inspection, testing, cable avoidance testing, scan, radar survey, hand dig trial pits, etc.

The involved parties (SPCs and Contractors) are not allowed to solely rely on the information provided but must independently contact and liaise with the PMC/EHS and the Utility Companies prior to commencing any works.

Any services identified, including those indicated as redundant, should be treated as being live until proven otherwise.

No works are permitted within 750mm of live services or within 5 metres of HV lines. Where such works are undertaken the services must be isolated, Lock Out Tag Out (LOTO) measures put in place and a permit to dig must be in place before any groundworks commences.

If excavation works are required to be carried out within 5 metres of the HV incoming supplies buried in the campus, the SPC/Contractor will have to contact the PMC/EHS and Owner Team.

3.2.18 Excavations and Groundworks

- An 'Excavation' is defined as any earthwork, trench, well, shaft, tunnel, culvert or underground working. Soil varies in nature, some soils like sand flow easily. Other soils like clay are more cohesive. However, no soil whatever its structure can be relied upon to be self supporting.
- Before any excavation work is undertaken, a risk assessment must first be carried out to assess the degree of hazard. The results of the risk assessment will dictate the contents of the method statement. The method statement should then mirror the complexity of the excavation works to be undertaken. Following the approval of the SPC/Contractor risk assessment a permit to dig must be requested from the PMC/Owner prior to work commencing.
- Excavation work should not begin until a risk assessment has been made and a method statement has been agreed. The method statement must always reflect the work activity to be done, and the information in it needs to be conveyed to all employees. In all cases, employees must fully understand the work system before they start their activities. All training and assessments that are carried out regarding the effectiveness of training must be recorded.
- Where excavation works are required on or near live services, such services must be isolated. No such works are allowed on or near live services. A proof of isolation in place must be provided along with Lock Out Tag Out Procedures implemented.
- The Excavation permit has 3 key "Hold Points" where the SPC/Contractor Project manager must physically supervise the surveying, locating and identifying of live services and sign each hold point off before the operatives can proceed to the next stage.
- All people who supervise direct excavation work must be trained and experienced in excavations.
- All excavations **must** at all times have rigid barriers and signage in place. The barriers must be set at least 1m from the edge, preferably 2m if physically possible.
- SPC/Contractor must ensure and maintain safe means of access and egress into all trenches/excavations at all times. Where possible suitably designed proprietary stair systems should be used.
- If a ladder is to be used as a means of access, SPC/Contractor must always ensure the following measures:
 - Ladders are correctly installed, positioned, secured and inspected before use, and routinely checked and maintained during use.
 - Do not install a ladder vertically unless there really is no alternative.
 - Always set the ladder at the correct angle (75° to the horizontal) or 1:4 rule.
 - Where possible, position ladders on a firm base. Where this is impossible, the ladder stiles should be firmly toed in.
 - Ensure the ladder cannot slip. The ladder is securely staked at the base or tied at the top to prevent it moving.
 - Keep rungs and footwear clean. Mud and dirt should be routinely removed to prevent feet slipping.

Excavation inspections and reports

As the work progresses, management must regularly check that the agreed safety precautions are in place, and that the work is adhering closely to the method statement.

Any changes to the work system must only be made after consultation and agreement with everyone involved.

A key management task is to measure the effectiveness of procedures. This forms part of the requirement to monitor and review health and safety precautions. Site supervisors need to be able to show this has been achieved, particularly in the case of high-risk operations.

Special attention must be paid to water ingress into the excavation.

Excavation report content

The excavation report should contain the following information:

- The location of the inspected workplace
- A description of the workplace, or the part of the workplace that was inspected (including any plant, equipment and materials)
- The date and time of the inspection
- Details of any matter that was identified which could constitute a risk to health and safety
- Details of the action taken when a risk to health and safety is identified
- Details of any further action considered necessary
- The name and position of the person making the report.

A report must be kept on the site where the work is being carried out, and retained for a further three months after the completion of the contract.

Vacuum excavations

Buried Services include:

- Electrical cables, Power cables,
- Telecommunication & Data cabling / Fibre cables,
- Gas, Oil, Steam, Petroleum lines,
- Sewage and Drain Lines & Drinking water.

Whenever excavations are to be undertaken in the vicinity of any buried service (within 0.75m), a Vacuum Excavator is to be used.

Some Vacuum Excavators have an under hose air speed of about 650 km/h / 400 mph and a maximum suction power of about 154kg / 340lbs.

In light of this: A full exclusion zone must be established around the operation which must include the operating radius of the boom as a minimum.

The vacuum excavator must be treated the same way as any other excavator.

Work must stop if anyone approaches the machine or talks to the operator.

There must be a secondary person nearby who is trained to operate the machine in an emergency.

In some cases a high pressure air lance should be used to help break up the ground.

Mechanical excavation is only allowed once all conditions set out in the Permit to Dig have been complied with.

If anyone has to enter the excavation for any reason the boom must be moved to a safe position and the machine completely isolated.

If the remote control is operated through an umbilical cord this must be extended to allow the operator to work from a place of safety.

At no time must anyone walk or work under the boom or vacuum nozzle, whenever it is being operated or not.

3.2.19 Ground Conditions/Stockpiling of Materials

The Geotechnical Investigation Report needs to be available and will be communicated to the relevant packages in the Tender Information.

However, the SPC/Contractor shall inform the PMC/Owner immediately from the moment any potential soil contamination has occurred or if any contaminated land has been identified in accordance with local legislation.

The SPC/Contractor will be responsible for ensuring their project staff are briefed and instructed on how to recognise and deal with contaminated ground.

Stockpiling of aggregate and soil is an accepted procedure in construction and civils works, however the following measures have to be implemented by the SPC/Contractor:

- Stockpile areas will have a banksman to ensure no unauthorised access in the area.
- Stockpiles will be cleaned and maintained by a plant, bucket loader, excavator, dozer.
- Tipper vehicles will not ride the stockpile, unless it is a machine constructed to ramp no more than 30 degrees.
- All stockpiles will be managed under the temp works system.
- SPC/Contractor must inform the coordinator of their intentions to place a stockpile and the suitable location must be agreed prior to works commencing.

During tipping works on the stockpile if there are communications between the tipper and the plant maintaining the stockpile the operative can act as the banksman, but must stop working and watch the reversing process.

3.2.20 Noise and Vibration

Belgium Legal reference on noise and vibrations: Book V, Title 2 and 3 of the Code on WBW (Code du bien-être au travail).

Noise

SPC/Contractor must perform noise assessments and record findings. The assessment will identify appropriate hearing protection. On site zoning must be established, complete with the appropriate signage, where hearing protection is advisable or obligatory.

All plant, machinery, tools and equipment generating excessive noise (greater than 90dBA) must have the correct silencing device(s) fitted, which must function correctly.

SPC and/or any involved Contractor will install environmental noise monitoring on the boundary of the site to ensure noise levels for the site are not being exceeded. Lower exposure value triggering the action: provision of PPE information and training of workers' health monitoring.

- Lower action value (LAV): 80 dBA daily exposure on an 8-hour TWA (Time-Weighted Average).
- Upper action value (UAV): daily exposure of 85 dBA on an 8-hour TWA
- Peak limit value: daily exposure of 87 dBA on an 8-hour TWA

All activities need to consider / evaluate the elimination or reduction of noise by substitution, collective measures, engineering and/or administration controls. Where this is not feasible, PPE must be utilised ensuring that users noise levels are reduced to the below OEL (Occupational Exposure Limit). Users must be trained to use the PPE. This will be further documented in RAMS.

Vibration

- Exposure Action Value (EAV) for hand-arm is an exposure of 2.5m/s² on an 8-hour TWA.
- Exposure Limit Value (ELV) for hand-arm is an exposure limit of 5 m/s² on an 8-hour (TWA) of which persons must not be exposed.

Hand-Arm Vibration (HAVS) / Whole-Body Vibration (WBV)

Wherever possible, works requiring the use of vibration generating equipment should be avoided. Where unavoidable, SPC/Contractor must assess and minimise risk and exposure to operatives. Where significant risk of injury exists from regular and prolonged exposure to vibration, a preventative programme for operatives and supervisors must be implemented. Vibration (and noise) level information for all tools and equipment must be held on file on site.

3.2.21 Confined Space Working

Due to works involving the construction and interface with existing cable and data pits and works in tight spaces which could be considered confined for rescue reasons, SPC/Contractors are to be aware of the [Belgian requirements for confined spaces works](#).

A confined space has two defining features:

- It is a place which is substantially (though not always entirely) enclosed, with limited access and egress
- There will be a reasonably foreseeable risk of serious injury from hazardous substances or conditions within the space or nearby, such as inadequate ventilation.

The main risks are those that are associated with toxic and flammable gases, fumes and vapours. These can be seen below:

- Flammable Substances and oxygen enrichment- A risk of fire and or an explosion can arise from the presence of flammable substances. There can also be a risk of fire and explosion from an excess of oxygen in the atmosphere, e.g. caused by a leak from an oxygen cylinder forming part of welding equipment.
- Toxic gas, fumes or vapour.
- Oxygen Deficiency that may cause asphyxiation.

Excessive heat can occur where work in hot conditions is being undertaken e.g. plant rooms, boilers or furnaces which have not been given sufficient time to cool down, or where heat is being introduced into a confined space e.g. hot works. This can be dangerous and lead to a rise in core body temperature and can be made worse due to PPE being worn.

Working in Confined Spaces Safely

Work in confined spaces requires skilled and trained people and where at all possible should be avoided. The Project Leader/Nominated Manager **must** ensure that the SPC/Contractor carrying out the works issues a specific Method Statement and Confined Space Risk Assessment.

The Risk Assessment is required and must consider:

- Previous use and contents of the confined Space
- Any remaining residues
- Contamination
- Oxygen deficiency and /or enrichment
- Physical dimensions of the room
- Sources of ignition
- Isolation of services (to prevent ingress of substances)
- Access and Egress
- Emergency rescue

The Risk Assessment **must** identify suitable control measures and relate these to the constraints imposed by the space. For example all PPE worn must be compatible for the working conditions and environment, the person wearing the PPE must be able to get in and out of the space safely and must be able to work safely. It must not hinder them in any way at all.

The Risk Assessment/Method Statement must explicitly outline the rescue procedure and training required to effectively carry out an Emergency evacuation of the confined space.

In addition to the above the Project Leader/Nominated Manager MUST consider and review the following with the Trade Contractor involved in the works:

- **Training and Competency of the operatives involved** – Operatives working in confined spaces **must** be trained in the dangers, precautions and emergency procedures
- **Supervision** – someone **is required to** be outside whilst the works are being done to keep watch and to communicate with the operatives inside (they **must** never enter the space under any circumstances)
- **Communication** – establish how communication is going to be established and maintained between the operative carrying out the works and the person supervising the works
- **Monitoring the quality of the air** – the air quality and the amount of oxygen **must** be tested prior to the works, during the works and after the works. The air quality and presence of harmful substances will determine the requirement for breathing apparatus, additional ventilation / extraction
- **Isolation** – what services need to be isolated and how long in advance of the works, particularly important to allow fumes to clear and for plant to cool down
- **Access / Egress** – Safe access and egress **must** be maintained at all times. Some confined spaces will require the operative to wear a harness which has to be attached to a life line that **must run** back to a point outside the confined space. Covers to be opened with the dedicated tool/Manhole Key
- **Suitable Plant and Equipment** – this is required to be able to fit in the space safely not hinder access / egress and hinder the operative's safety. The plant **must** be fitted with extract systems to extract harmful gases released, and be well maintained. It may be necessary to introduce an extract system when some equipment is being used, for example hot works
- **PPE** – this will be covered in the Risk Assessment, but checks **must** be made that the PPE specified is suitable for the environment and space
- **Lighting** – What is the task lighting requirement for safe access / egress and the requirement for carrying out the works. Careful consideration **is required when** selecting the type of lights. Some types of fitting will cause an explosion when switched on in the presence of flammable gases
- **Emergency Procedures** – Procedures **must** be in place to deal with all aspects that could go wrong. Fire, Explosions, inhalation of poison gases, getting the operative out if they become ill / unconscious etc. Everyone involved in the confined space works (operators, manhole watch, rescuers, etc.) need to be made aware of their duties and the location of the works, also everyone needs to understand all of his tasks during this operation.

3.2.22 Hot Works

Due to the content and complexity of the procedures a Fire Safety Plan and Emergency Response Plan are separate documents which are issued by the PMC to all SPCs/Contractors. The Plan is reviewed and revised by the PMC Fire Coordinator on a regular basis to reflect current and imminent phases of the project and therefore remains a live document. Please make sure to follow the [legislation in Belgium regarding Fire prevention](#). A fire extinguisher must be supplied and kept at the place of work where hot works are being completed.

The fire action is aided by the posting of 'Fire Action Notices' throughout the site and its offices.

All hot works must be managed through a Hot Works Permit:

- Cutting – Unless cold saw blade.
- Burning
- Welding
- Soldering
- Bitumen works
- Any activity that generates sparks or heat' i.e. grinding

A new digital gForm permit for Hot Works has been developed and implemented on the project to assist with controlling Hot Work Activities.

3.2.23 Concrete/Pile caps and Beams

Concrete Works

- During ready mix concrete works appropriate clothing must be worn to prevent wet mix making contact with the skin and thus preventing skin irritation and concrete burns.
- PPE must be worn including protection for skin from contact with wet concrete, waterproof gloves, boots and goggles for operatives working on pressurised or delivery chutes or those using vibratory tools, preventing splash into eyes.
- Barrier creams should be used and must be used to prevent skin irritation of hands.
- Additional PPE must be worn during works when wet concrete has set and produces silica dust or during the process of adding fibrous or powder admixes to the concrete mixer.
- When dust is produced suppression systems must be in place in vacuum or water.

The following items must be considered in the assessment:

- Cementitious works will always require FFP3.
- Suitability for the work – disposable masks or half masks can become uncomfortable to wear for long periods. Powered RPE (Respiratory protective equipment) helps minimise this. Consider it when people are working for more than an hour without a break;
- Ensure it is compatible with other items of protective equipment;
- Ensure it fits the operative. Face fit testing is needed for tight fitting masks;
- Ensure masks are worn correctly. Anyone using tight-fitting masks also needs to be clean shaven.

Pile Caps and Beams

The shuttering for concrete works including pile caps and beams must have suitable working platforms constructed or a full hand and intermediate railing on top of the structure to allow safe concrete works like pouring wet mix, surveying or starter bolt positioning.

There must be a safe system of access and exits which may be mobile must be designed to be a safe system.

Fixing Rebar

Cutting of lacers, threaded bar and mass reinforcing must be completed by trained personnel wearing 5 Point PPE and goggles or glasses and face shield. If using a grinder, long sleeves and hearing protection must be worn. All reinforcing left in a vertical or horizontal position must be capped to prevent piercing or stabbing injury.

No one is to work on top of cages without handrail protection being in place.

When fixing the cages a trestle system is to be set up to enable workers to fix at a good height. If this is not reasonably practicable a safe work platform is to be installed with a fall restraint system. If unable to install handrails, or backfill to a height that does not require working at height, an inertia reel connected to the boom of a manitou will be permitted. Access must be secured to the cage and the plant operator must be in the cab at all times. There is to be a ply deck placed on the cage to avoid trips and falls.

When fixing the cages a trestle system is to be set up to enable workers to fix at a good height.

3.2.24 Temporary Holes Coverings

All temporary hole covering must be suitably covered with Ply or another suitable robust material , screwed down where possible with the Ply sprayed in the hazard colour black and yellow at 45 degrees.

This also applies to missing drain covers over manholes.

All nosings to stairwells are to be highlighted in the hazard spray black and yellow.
This also applies to any other areas protection/Hazards to any other areas.
A permit will be requirement to work either in the vicinity or in those holes

3.2.25 Segregation

Any segregation around excavations, trenches, voids, risers, crane areas and work areas, etc must be uniformed and of suitable rigid edge protection that is impact resistant.

The SPC/Contractor is responsible to coordinate with other SPC/Contractors and segregate the work area with clearly defined barriers and clear signage that is clearly identified whose work area it is and with the standard site PMC signage template.

These areas need to be constantly maintained and where necessary also have a marshall/banksman informing others that this is an exclusion zone.

UNDER NO CIRCUMSTANCES CAN BUNTING TAPE BE USED ANYWHERE IN THE PROJECT PERIMETER AS A MEANS OF PREVENTING PERSONS ACCESSING A HAZARDOUS AREA

3.2.26 High Voltage, Low Voltage/Extreme Low Voltage: Competence of Electrical Teams

- Electrical Works, regardless of Voltage, must be performed only under the supervision of Competent Persons (BA5 level of competency).
A competent person based on RGIE definition is a person who has completed formal electrical safety training and has sufficient technical knowledge and experience to enable them to prevent danger and who may be nominated to receive and clear specified safety documents.
- The SPC team must include the following three Electrical roles with BA5 level as per Owner requirements:
 - Authorising Engineer, to be validated by Owner/PMC/EHS
 - Senior Appointed Person (SAP), to be validated by Owner/PMC/EHS
 - Appointed person (AP)
- The **SPC will nominate an Authorising Engineer** (BA5) which will be responsible for implementing, administering and monitoring the application of the Project Electrical Safety Rules and Procedures, within the area of his/her appointment.
The PMC/EHS team will coordinate and audit the process.

The Authorising Engineer duties include those described below:

- The Authorising Engineer is to issue to each Authorised Person (AP), on appointment or reappointment, a Certificate of Appointment as an Authorised Person.
 - The Authorising Engineer must define in writing, using drawings and diagrams as appropriate, the exact extent of the systems and installations for which each Authorised Person is responsible.
 - SPC Register of SPC people trained certificates: The Authorising Engineer must maintain a register of all Authorised Persons within their team including their training records and areas of responsibility.
The register is to include details of the persons with whom the Authorised Persons are to communicate and cooperate with, to coordinate and regulate the assessment of risk, the generation of safety programmes and sequences of safe systems of work.
The Register of the authorised people has to be validated by the Owner/PMC/EHS.
 - PMC/EHS Register of SPC people in charge: The Authorising Engineer has to record and file a copy of the Certificate of Appointment and an Authorised Person's acceptance of this Appointment in accordance with Project procedures and the relevant country's electrical codes.
- **The Senior Authorised Person (SAP)** is a professional who will be responsible for the safety of themselves and others in HV areas. The SAP must take measures to ensure HV equipment is safely isolated and safe to work on and is ultimately responsible as a senior figure for overseeing the work of Authorised Persons. More specifically the SAP:
 - Must hold a BA5 certification or equivalent
 - Have confirmed experience with HV / LV infrastructures and systems
 - Be qualified to lead and supervise a team of BA4 certified worker

- Be a technical reference for the EHS of people and equipment in electrical infrastructures and systems
- Gives the instructions to the AP
- **The Authorised Person (AP):**
 - Must hold a BA5 certification or equivalent
 - Have confirmed experience with HV / LV infrastructures and systems
 - Be a technical reference for the EHS of people and equipment in electrical infrastructures and systems
- **The PMC Electrical Lead will need to check that the Senior Appointed Person (SAP from the SPC) and the Appointed Person (AP from the SPC):**
 - Satisfy the qualification requirements
 - Satisfy the training and familiarisation requirements
 - Are able to demonstrate adequate knowledge of each system, installation and type of equipment for which authorisation is envisaged
 - Have attended a satisfactory interview with the Authorising Engineer or Subordinate Authorising Engineer, or another already appointed Senior Authorised Person.
- COHE procedure to be added later in the project
- Flowchart PM, PMC, SPC, Subs to be added

Regardless of Voltage, all conductors are to be treated as LIVE until demonstrated to be DEAD and shown to be securely isolated to the responsible person in receipt of the permit.

All electrical operations must be conducted in accordance with the Owner.

ELECTRICAL SAFETY RULES AND PROCEDURES requirements

WARNING: For RAMS that could impact aerial /buried services, details of emergency contacts must be included and must be displayed on site and contained in the RAMS.

3.2.27 Fibre - Network

The SPC/Contractor shall ensure that:

- Workers on fibre are trained and aware of the risks of fibre optics.
- Splicing fibre may create small glass fibre splinters. SPC/Contractor shall ensure protection of the workers from fibre scraps that can easily penetrate the skin and eyes
- Small scraps of fibres produced as part of the termination and splicing process must be disposed of properly in a safe container and marked for elimination.
- Fibre scraps cannot be dropped on the floor.
- Hands must be well washed after working with fibres.
- Clothing must be fully inspected for fibre scraps when finished working with fibre.
- Security must be notified of the presence of fibre during waste control, if required.

3.3 Site Rules

The [SAM3A EHS Minimum Requirements](#) and the [SAM3A General Site regulation management plan](#) explain the Contractors' requirements.

Site rules will be communicated in the PMC/EHS induction presentation.

3.4 Personal Protective Equipment (PPE)

PMC Team operates a Five Point PPE standard on the SAM3A project. This requires all SPCs/Contractors to meet the following requirements:

	Type	Minimum Standard
I	Safety Helmet	Safety helmet* - with, where applicable through risk assessment, a suitable 4-point chin strap, which must be fastened at all times. EN12492/EN14092/EN397

	Type	Minimum Standard
II	Protective Eyewear	Protective eyewear - incorporating prescription lenses where necessary. Overglasses can be worn. EN 166: Optical Class 1; mechanical strength F; resistance to fogging N; resistance to surface damage K.
III	Hand Protection Protective Gloves & Gauntlets	Gloves - Anti-cut safety gloves are the minimal requirement (EN388 – 4X43D). Where this requirement cannot be met due to the nature of the works, it must be assessed in the RAMS accordingly.
IV	Safety Footwear	Safety footwear/ boots - incorporating toe and midsole protection with ankle support. Boots must be fully laced at all times. Safety shoes or rigger boots are not allowed on site. EN ISO 20345:2011: S3, SRC
V	High Visibility Jacket or Vest	High visibility jacket or vest - Class 2 minimum. Class 3 when required by a project specific risk assessment. EN ISO 20471:2013

PPE requirements need to be identified during the risk assessment process e.g. RAMS. The Risk assessments must as a minimum include the Five Point PPE standard. This applies for all persons on site. Additional PPE requirements (task specific PPE) must be identified as part of the task or project specific risk assessment. The SPCs/Contractors will provide all required PPE for their respective employees. This includes freelance, temporary and/or agency workers, visitors and subcontractors.

Further requirements and directives on PPE:

- Operative's names must be clearly visible on their safety helmets;
- The company's name must be clearly visible on the operative's Hi-Vis Jacket or Vest;
- Site personnel must keep their bodies covered at all times. Arms must also be covered by long sleeves when required by risk assessment;
- Pants/trousers/jeans worn on site must be non flammable and made from a strong material. Clothing must fit properly. Sweatpants are not considered proper work clothes.

Regarding PPE, Book IX – Title 2 of the Code on WBW (Code du bien-être au travail) must be adhered to as well.

3.5 Permit to Work Pack

All SPC/Contractor work groups must have a Permit to Work pack available next to the work environment, reflecting the currently developed safe work system. Upon request the SPC/Contractor must be able to present the work pack for sampling or referencing. The information to be provided in the work pack should include at least, but is not limited to:

- 1) Risk Assessment / Method Statement (RAMS) – Owner CSF/PMC Team “A” (Accepted) Status
- 2) Workforce RAMS briefing sheet
- 3) Daily Task Briefing Sheet/LMRA/SPA
- 4) Lift Plan
- 5) Relevant Permits as per HRA Permit System Procedure according to the specific works to be carried out.

The work pack will be maintained in A4 paper and needs to be at the workplace at all times.

3.6 Waste and Rubble

- The Owner will put at the disposal of the project an area to manage the waste.
- Each SPC is obliged to:
 - Sort and store waste and rubble, including hazardous waste, separately in containers.
 - Use recycling channels as required by regulations.
 - Keep evidence of evacuation to accredited centres in a dedicated binder and provide it to the Owner/CSC (Construction Safety Coordinator) or the PMC/EHS through the

waste removal reporting form provided later. Keep copies of the recovery or disposal certificates for all waste.

- Set up and implement control measures when necessary so that soil contamination in the area and drains is fully prevented.
- The PMC shall:
 - Ensure facilities are put in place and kept neat and tidy by SPC
 - Oversee effective sorting by SPC
 - Manage PMC and Owner waste
 - Ensure follow-up during waste management contract handover.
 - By February 28 of every year, provide the Owner with necessary information to fill in the annual Hazardous Waste Declaration, as per the official form found on <http://formulaire.wallonie.be>. The SPC must submit copies of the recovery or disposal certificates for all hazardous waste to the PMC.
- The different storage areas must be indicated on both Logistics plans from the PMC and from the SPCs.
- Hazardous waste storage will follow the same rules as hazardous materials storage.
- Incineration of waste of any kind on the site is totally forbidden.
- At the end of the work, an analysis of soil samples from the storage areas must be collected by the PMC if there is any suspicion of soil contamination. The results of this analysis will be transmitted to the Owner / CSC. In case of soil pollution, remedial actions will be implemented by the SPCs.

Conditions for the removal of hazardous material

Legal References:

- Walloon Decree of 27 June 1996 concerning the wastes
- 98/24/EC - risks related to chemical agents at work
- 2000/54/EC - biological agents at work
- 2004/37/EC - carcinogens or mutagens at work

If, during the design stage or the execution stage of the work, hazardous material is identified, the CSC will determine with the Owner and PMC the requirements the Project will have to comply with. Also for hazardous substances, evidence of evacuation to accredited centres will be provided to the PMC on a weekly basis and to the CSC upon request.

In all cases, the SPC will use recycling channels, as requested by specific regulations.

3.7 Drug and Alcohol Policy

The policy is to maintain a work environment that is safe and healthful for everyone on site and the general visitors, and which provides efficient and stable work conditions.

To the extent permitted by applicable law, Drug & Alcohol policy will prohibit the unauthorised manufacture, dispensing, distribution, possession or use of alcoholic beverages or drugs, including, but not limited to narcotics, hallucinogens, depressants, stimulants, marijuana, or other controlled substances by an employee of the SPC/Contractor or its Subcontractors' employees while on company business or on company property.

Illegal and unauthorised drugs in the Drug and Alcohol policy include those substances mentioned in the Belgium Royal Decree of 31 December 1930 that regulates soporific and narcotic substances and concerning the reduction of the risks and the therapeutic advice.

The Owner and PMC Team will not permit any persons believed to be positive for drug and/or alcohol - or having been tested positive - to work or to jeopardise the health and safety of themselves or others. Where a worker is suspected to be under the influence of drugs or alcohol, voluntary cooperation to a drug and/or alcohol test will be requested from the involved person.

Failure of (taking) a drug and/or alcohol test will cause temporary removal from the project but this will never lead to any retaliation from the employer or Owner and PMC Team of the individual. The individual will be allowed back to work after taking a drug or alcohol test, by the onsite licenced medic or an accredited third party, with a negative result. The employer will be encouraged to ensure the individual will be offered the appropriate medical support in relation to drugs or alcohol abuse.

Please refer to the [CCT100](#) (Convention Collectives du Travail) which is linked here.

3.8 Health Surveillance

According to the Book I - Title 4 of the Code on WBW (Code du bien-être au travail), yearly Health Checks are mandatory for Personnel performing a 'High risk role' and several types of High-Risk Works. This check is to be performed by the SPC/Contractor Company Doctor.

For foreign workers, if the medical surveillance was done in the country of origin, the SPC/Contractor must prove the equivalence with the local Health requirements.

The following activities must require health surveillance by the SPC/Contractor, for instance:

Activity	Substance	Person Affected	Arrangements for Health Surveillance
Use of Plant and Equipment	Drugs and Alcohol	Operator	Health screening for Safety Critical Operations.
Use of Powered Hand Tools	Hand Arm Vibration	Operator	Risk assessments to cover exposure levels and maximum periods of use.
All operatives	Occupational Health Risks	Operative	Mandatory yearly health check by company doctor or medical centre.
Night Work	Fatigue	Operator	Risk assessments and observations.

3.9 Lifting Operations

All lifting activities will require an approved full Lifting Plan that details planning and execution of the activity. Description of lifting activities is entailed within the HRA permit to work procedure explained hereafter.

3.10 HRA Permits to Work

All specialist high-risk operations require specific means of control using a HRA permit to work, in accordance with the HRA Permit System Procedure.

The PMC operates different types of HRA permit-to-work on the project:

- HRA permits to work are under direct issue and control of PMC/SPC Team Site Management.
- The other types of permit to work are under direct issue and control of the SPC, however are coordinated via PMC Team Site Management.

The table below outlines the method of control for the relevant HRA permit for the project. SPCs/Contractors should liaise with PMC Team Site Management in respect to the specific operational control measures which will be implemented on the project (i.e.: authorised persons, obtaining permits, rescinding permits, etc).

The [Smartsheet](#) platform is used for project permits from submission by the SPC/Contractor to approval by the PMC.

HRA Permit to Work types & links	Direct Control	Coordination	Comments
Excavation Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Compliance with conditions by SPC/Contractor/Subcontractor Checklist to be completed Submit drawings with mark-ups i.e. underground utilities
Hot Works Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Compliance with conditions by SPC/Contractor/Subcontractor Ensure checklist has been completed
Out of Hours Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Team or Owner SPC/Contractor to include their supervision and emergency personnel for the out-of-hours activity
Confined Space Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by relevant SPC/Contractor notified of confined space. Works within SPC/Contractor/Subcontractor's method statement. SPC/Contractor/Subcontractor system of control agreed with the PMC/EHS Team prior to commencement of work. Permit Checklist to be completed. Specific Rescue Plan to be submitted. Submit RAMS. PMC/EHS CS Checklist to be completed at work front by the permit holder prior to commencing work.
Electrical & Mechanical	PMC/EHS/SP C Team Site Management/ Relevant Contractor	PMC/EHS Team Site Management/ Relevant Contractor	<ul style="list-style-type: none"> The SPC/Contractor will complete approval, issue and cancellation of Electrical and Mechanical permits. SPC/Contractor COHE (Control of Hazard Energy) and permits must meet Owner and PMC/EHS requirements. SPC/Contractor to ensure compliance with permit conditions. System agreed and approved by the PMC/EHS Team. Regular monitoring of systems will be carried out by PMC/EHS Team Site management.

HRA Permit to Work types & links	Direct Control	Coordination	Comments
Ladder Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Team. PMC/EHS Team notified of the use of low-level equipment within the SPC/Contractor's method statement and work at height plan. SPC/Contractor system of control agreed with the PMC/EHS Team prior to commencement of works. Checklists with controls.
Special Conditions Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approval, issuance and cancellation by PMC/EHS Team. The PMC/EHS Team was notified in advance of the permit requirement. SPC/Contractor's system of control agreed prior to commencement and during works. Drawing to be submitted of the specific location of work task e.g. work at height hop-up in MEWP, existing MEWP basket. Task Specific risk assessment to be conducted and documented in the LMRA Drawing to be submitted with the specific work location marked up.
Control Of Substances Hazardous to Health (COSHH)	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Team. Compliance with conditions by SPC/Contractor. COSHH Assessment to be uploaded when submitting RAMS.
OPE Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Team. Compliance with conditions by SPC/Contractor. Mandatory checklist to be completed Drawing to be submitted with a specific area marked up.
Lift Permit	PMC/EHS / SPC Team Site Management	PMC/EHS Team Site Management	<ul style="list-style-type: none"> Approved issue/cancellation by PMC/EHS Team. PMC/EHS Team notified in advance of the permit requirement. Compliance with conditions by SPC/Contractor. Lift plan to be submitted. Where applicable, ground load bearing capacity assessment to be submitted.

All temporary works information, designs, calculations, selection of lifting equipment, etc. must be included in the Permit to Work submission.

3.11 Fire Safety Management

The fire safety strategy for the project is required to be detailed within the [Project Emergency Response Plan](#) which must be adhered to at all times. All SPCs/Contractors must be issued with a copy of the current Plan and must receive updates when produced.

Fire equipment details can be found in each SPC Fire Plan. The PMC/EHS will be in charge to coordinate the transition period between two SPCs.

The PMC/EHS Team will communicate any specific fire safety management issues, including the evacuation procedure.

The PMC/EHS and SPC Site Fire Coordinators (Fire Marshalls) will be responsible for ensuring that:

- All fire fighting equipment provided is maintained and kept in good working order
- Emergency practice site evacuations are carried out and monitored by the PMC/EHS Team
- A Weekly Fire Coordinators inspection is carried out on site with both SPC and PMC EHS Team, which will checks:
 - Fire Extinguishers
 - Alarms / Warning devices
 - Escape routes / exits and housekeeping

SPCs/Contractors must appoint a sufficient number of suitably trained fire marshals to cover all anticipated hot work processes as per Royal decree of December 7, 2016 amending the royal decree of July 7, 1994 setting the basic standards for fire and explosion prevention, which buildings must meet. Fire marshals must have attended a recognised third-party fire marshal training course which includes practical use of fire extinguishers.

When SPCs/Contractors utilise remote welfare / storage, these will be provided with suitable fire provision / controls including detection at the SPCs/Contractors' expense. All fire detection systems need to be linked to the Site security control.

To help prevent fires starting the following measures is required to be taken:

- The amount of flammable materials stored onsite will be minimised. When a SPC/Contractor brings a flammable material to site (these will be identified on their COSHH Risk Assessments), it must be kept in suitable closed containers, and kept away from heat and any hot works. Where possible non-flammable materials will be used as an alternative.
- All flammable solids, liquids, and gases must be stored safely. They must be separate from each other and kept away from oxygen cylinders or oxidising material. Storage areas must be well ventilated with adequate signage and away from occupied areas.
- Smoking is not allowed anywhere on site outside designated areas (this includes the use of electronic cigarettes). Designated smoking areas will be provided where appropriate and must be away from the workplace and material storage areas.
- All Hot Works such as welding, grinding and cutting, will be carried out under supervision and a permit to work – A Hot Works Permit. The control measures identified in the permit must be adhered to at all times. All operatives are required to have a fire extinguisher to hand. Please note that this must not be a Project provided extinguisher, it must be provided by the SPC/Contractor. All fire extinguishers must be subject to a regular inspection regime as per local regulation. Fire watch will be implemented to monitor cool down periods after hot works as residual heat can cause fires.
- SPC/Contractors adhere to the “Clean as you go policy”. Practicable rubbish will be removed daily. The site must remain clean and tidy at all times.
- Any storage tanks for diesel or fuel must be clearly identified by the SPC/Contractor and any leaks and spills must be dealt with quickly and safely as possible. All tanks must be bunded and smoking and hot works must be prohibited in these areas.
- Tools and Plant must be maintained and tested where appropriate.
- The site will be checked by all parties at the end of each day, to ensure that all Plant and equipment that could cause a fire is turned off (including site office heaters etc). Areas where

Hot Works have taken place will also be inspected by the SPC/Contractor Fire Marshall min. one hour up to three hours after the work has finished depending on the works.

- Fire extinguishers must be located at fire points. Each fire point is required to contain a foam and/or carbon dioxide extinguisher depending the type of room and depending on the planning and the risk.
- Fire points will be located within 45 metres of any point in the building, ideally near fire exits and in corridors.
- Each SPC will provide adequate foam and/or carbon dioxide fire extinguishers. Howlers to alert the presence of fire will also be identified at these points. The PMC/EHS will monitor and audit on a weekly basis to make sure that the expectation are met and maintained
- The SPC will number and identify each firepoint with a fire point sign. Each fire extinguisher will also be numbered to correspond with the fire point to where it has been allocated.
- All Extinguishers is required to be maintained and regularly inspected weekly. A record of inspections must be kept.
- All fire point locations and fire exits will be clearly identified on laminated site layout plans, and displayed on each floor's information board and at the site entrance. The location of the muster point will also be clearly displayed.
- Fire point locations, fire exits and the muster location must be provided on an information board to all operatives at the construction site entrance.
- The project must have a fire detection system within the Site Accommodation and within the project offices on site that will alert 24hrs security guards, a Central Station.
- Heaters in site offices and welfare facilities must be fixed above floor level, have enclosed elements and are fitted with metal guards. Drying racks and coat hooks will be located safely away from heaters.

3.12 Safety Stand Down

Whenever there is a significant event, incident, unsafe event or near miss on site, the Owner/PMC/EHS may set up a Safety Stand Down. The scale of the Stand Down will vary by incident type.

The Stand Down will take place to ensure that specific Health & Safety information is communicated to the workforce, so that significant lessons learned are shared with the workers and further safety events can be avoided.

3.13 Recognition, Coaching and Disciplinary

Link to SAM3A Project - Recognition, Coaching and Disciplinary Protocol (add link). The purpose of this protocol is to clearly define how the Owner and the PMC/E team will implement recognition, coaching and disciplinary on the SAM3A project to maintain and if needed improve the Safety Culture on the project. It is intended that this procedure is shared, cascaded till the Subcontractors and agreed so that all parties are aware of the application of the rules and the approach remains consistent across all parties on site.

The Recognition, Coaching and Disciplinary Policy is working with cards which are issued in response to various safety behaviours, green cards for positive safety behaviour, then verbal warning, yellow and red cards are used to challenge unsafe behaviours. The person receiving the red card will be permanently removed from the site. Violations onsite will be logged by the PMC/EHS Team. Positive behaviour and outstanding engagement will be rewarded.

3.14 Welfare obligation and inspection

The term “social facilities” refers to toilets, changing rooms, canteens, recovery rooms, wash houses, showers and storage cabinets. The Work Collection Convention has clearly stated requirements for each of these equipment. ([Royal decree making mandatory the collective labour agreement of March 10, 2016, concluded within the Joint Construction Commission, relating to the humanization of work](#)) These requirements relate, among other things, to construction, layout and equipment, maintenance, ban on smoking, lighting and fire protection.

Social facilities must always be established in one or more premises completely separate from the work area. Changing rooms and laundry facilities must be combined into one room or adjoining rooms. These Social facilities will need to be cleaned by the SPC everyday.

The number of social facilities to be provided by the SPC is proportional to the number of workers employed by the SPC and Subcontractors simultaneously. As per example, there should be at the minimum 1 toilet for 15 people and 1 urinal for 10 people. They should be as close as possible from their working area. If this is impossible, some chemical toilets or toilet cabins can be used in addition. These ones need to be installed in accordance with the minimum requirement which is 1 chemical toilet for 10 workers and 1 urinal for 10 people. They need to be cleaned everyday as well.

Smoking is absolutely banned in social facilities.

Regular daily inspections and audits of the Social facilities will be carried out by the PMC/EHS to check that they have been installed and maintained according to the legislation. In case of non compliance with the legislation a warning letter will be sent to remind the rules and to enforce the implementation of the missing requirements. If no action is taken, the welfare will be closed.

Every SPC has to provide its own Welfare facilities upon Owner approval in regards with layout, type, size and location on the Construction site.

All welfare facilities must comply with EU Directive 89/654 and Belgian legislation RD 25/01/2001.

Canteen facilities including lunch space are provided by the Owner and accessible to the SPCs/Contractors.

3.15 Site opening hours

The sites normal opening hours will be as follows:

Day	Working Hours
Monday - Saturday	07:00 - 19:00
Sunday and Public Holidays	Closed

The above times will be displayed on the main site notice board.
If instructed or agreed with the Owner and the PMC Team, workers may work different hours to those quoted above.

SECTION 4 - EMERGENCY, ACCIDENT & INCIDENT ARRANGEMENTS

4.1 Emergency, Accident and Incident Arrangements

This section details requirements for planning, managing and monitoring health & safety and environmental arrangements for accidents and incidents according to the Belgian law (WBW/Code du Bien-être Livre I - Principes généraux Titre 6. - Mesures en cas d'accident du travail), Owner GSafe requirements and Procedure.

More information is provided in the [shared drive, Emergency Response Plan](#) and in the ERT plan (add link).

Within the Project there are seven classifications of accidents / incidents recorded in the SPC/Contractor Accident Book:

1. Any Incident Involving Plant and Equipment
2. Near misses
3. Dangerous Occurrences
4. Minor/First Aid
5. Lost time (anything over 1 day of absence)
6. Major
7. Fatal

Definitions

Accident: An unplanned event that causes injury to people, damage to property or a combination of both. Accidents have a dangerous occurrence, which can be defined as a serious failure of equipment, premises or plant as defined in OSHA rules.

Incident: An incident is an event that has unintentionally happened, but this may not result in damage, harm or injury.

Near Miss: An incident that did not result in injury, illness, or environmental harm, but had the potential to do so.

Environmental Harm: Environmental aspect/impact ranking category that evaluates the potential environmental harm posed due to normal operations and due to a spill or accidental release. Spill/release scenarios evaluate the potential for off-site consequences, types of media potentially impacted, and agency reporting requirements related to possible releases to the environment. Note: ranking should consider current engineering (but not administrative) measures (e.g. double-walled tanks) that would prevent and/or mitigate a release.

Reporting within the Project

The SPC and/or the PMC/EHS Team will immediately report the following incidents to the Owner EHS Department to allow application of the Owner procedure of accident and dangerous occurrence:

- Any potential lost-time accident, or near-miss safety event.
- Any occasion where emergency response / law enforcement is called, or a report filed.
- Any occurrence poses a significant safety hazard or impact to the working environment (i.e. structural damage from storm, fire sprinkler/alarm activation, etc).
- Any damage to a utility (on or near the site).
- Visits by regulatory agencies.
- Environmental incidents (e.g. spills, discharges, etc).
- Site shutdowns of any kind (including weather-related).

Reporting to the local Authorities

There are four different types of occupation accidents that must be communicated following specific terms to the local Authorities:

- Minor work accidents with less than 4 days of incapacity
- Non serious work accident with at least 4 days of incapacity
- Serious work accident leading to a temporary physical injury
- Serious work accident leading to a fatality or to a permanent physical injury

Industrial accidents that cause a hospital admission, permanent injury or death have to be immediately reported by the Employer (SPC/Contractor) to the Belgium enforcement authority (OHS). Regulatory agency notifications must be done by the SPC/Contractor in parallel with notification to Crystal Computing Legal but in no case shall the immediate notification be delayed while awaiting Crystal Computing Legal review. After the initial notification, contact with regulatory agencies should be coordinated with Crystal Computing Legal and the Owner Regional EHS Manager unless enforceable time constraints apply.

Recording in Accident Book

All accidents / incidents that occurred on site, including those that occurred to Subcontractor operatives and visitors, must be recorded immediately in the SPC/Contractor Accident Book located in the Owner and PMC/EHS Team Project Office.

All accidents recorded in the SPC/Contractor Accident Book, involving subcontractor operatives, are required to also be recorded in their Employer's Accident Book as well. The Project EHS might inspect the SPC/Contractor's Accident Book. This Book should be available on request at all times.

NOTE: Recordable incidents/accidents include all occupational injuries and illnesses resulting in loss of consciousness, restriction of work or motion, some type of medical treatment or permanent transfer to another job within the company.

Lost Time incidents/accidents include any occupational injury or illness which results in a worker being unable to work the full assigned shift.

Lost work Days are the number of days lost when an occupational injury or illness prevents a worker from working the full assigned shift.

Investigation

All accidents and near misses need to be investigated and discussed. Measures need to be taken and best practices developed to prevent recurrence.

The relevant SPC/Contractor must investigate all reportable accidents and a suitable accident report must be submitted to the PMC EHS Manager who will transmit it to the PMC Construction Manager and Leadership.

Accident reports will be provided to the relevant authorities in accordance with local legislation and European directives.

4.2 Owner internal Incident Reporting (R360/Symmetry Security tool)

This section specifies the incident escalation process on the Owner side.

For all significant events listed below, the SPC/Contractor must issue a first alert to the Owner/PMC/EHS by email immediately:

- Major incident without injury, but possible SPE (for example: electrical incident, dropped transformer, etc.).
- Cases that require off-site medical attention such as potential recordable incidents and personal medical cases.
- Visits from the Authorities (Police, Well-Being, Social inspection...) related to EHS or Compliance matters.
- Any potential lost time accident or serious near miss event.
- Any occasion where the emergency services or law enforcement are called, or a report is filed.

- Any occasion causing a significant safety hazard or impact to the working environment (i.e. structural damage from a storm / fire alarm / sprinkler activation)
- Major Damage to utilities and property damage (on/near the site)
- All types of security incidents, i.e. intrusions, violations, lost assets
- Environmental Incidents (spills, discharges)
- *Site shutdowns of any kind (including weather related shutdowns)*

Incident and Accident Reporting Timeframes

SPC/Contractor with the PMC MUST follow the Owner Construction Incident Notification Procedure (available upon request) for reporting all:

- Fatality or multiple hospitalizations: immediately upon occurrence
- Injury or damage to the public or neighbouring properties: immediately upon occurrence
- Injury requiring medical treatment beyond first aid: within 1 hour from occurrence
- Injury which results in days away from work: within 1 hour from occurrence
- Environmental releases: within 1 hour of occurrence
- Property damage: within 1 hour of occurrence
- Near misses: within 4 hours of occurrence
- First aid injuries: within 4 hours of occurrence
- All medical Incidents whether work related or not that require transportation of the individual by ambulance to a hospital: within 4 hours

Statutory Incident Reporting

Statutory incident reporting has to be done in accordance with Article 54 of the Belgium Royal Decree of January 25th 2001 which requires the following: for serious on-site accidents involving employees, first notification should be done to the authorities within 48 hours and final report sent to the authorities within 10 days.

4.3 Incident Investigation with all involved parties

All unplanned events will be investigated to a level appropriate to the potential significance or impact of the event.

Investigations will be carried out in accordance with Article 54 of the Royal Decree of January 25th 2001 and all records kept on file by the Owner and PMC Team for a period of 5 years.

Depending upon the potential severity, incident and accident investigations will be subject to a Root Cause Analysis (RCA). Any incident classified as a high potential incident will be investigated through the Incident Cause Analysis Model (ICAM). This will be accompanied with a 5 Why process to identify the root cause.

Investigation and reporting if lost time days

In case of lost time days, an accident investigation report with an action plan and preventative measures will be established. Proof of involvement in the investigation of the different parties and the findings will be presented at the Project Employee EHS Safety Committee.

A detailed report has to be sent by the SPC/Contractor to the Belgium General Department of Workplace Well-being Control (DG CBE - Direction générale Contrôle du bien-être au travail) no later than 10 days after the accident. The report must be signed off and approved by the Owner Team and Project Prevention Advisor prior to contacting the DG BCE. Link: [Occupational accidents | Federal Public Service Employment, Labour and Social Dialogue](#)

Any fatal accident at work or occupational injury resulting in permanent incapacity will be reported without delay to the EHS Inspectorate: "Contrôle du bien-être au travail".

A "Thorough report" must be prepared by a Project Prevention Advisor and submitted to the Labour inspectorate within 10 days.

4.4 Fire and Emergency

The [Emergency Response Plan](#) and the Fire Risk Assessment (add link) are separate documents located on the Shared Drive.

4.5 Environmental Incident & Emergency Response

- [Environmental Management Plan](#)
- [Emergency Response Plan](#)

Planning for responding to incidents and emergencies is an important part of Project Environmental Management. Emergency response and contingency plans should take account of:

- The location of the local drainage system,
- Requirement to engage with the emergency services,
- Location and contents of spill kits,
- Notification process and emergency contacts list in the event of an incident, etc.

The SPCs/Contractors must be familiar with the Pollution Prevention section of the Project Environmental Management Plan and apply it on site.

All environmental observations, incidents and near-misses must be recorded and kept on file by the PMC/Owner Team for a period of 5 years. Full details must be recorded providing all relevant and required information. Good practices should also be recorded.

4.6 First Aid

First aid facilities are provided in accordance with Book I, Title 5 of the Code on WBW (Code du bien-être au travail). First aid provisions are coordinated to ensure that adequate numbers of first aiders are trained within each SPC/Contractor and suitable facilities are provided by the Owner.

Each SPC/Contractor will provide an adequate number of first aiders (1 for 10 people) at all times whilst on site, taking account of numbers of personnel members, work locations, and risks involved. For high-risk operations such as steel erection, confined space working, etc., SPCs/Contractors should ensure that a first aider is in the work team, or present in the immediate vicinity. First aider details must be included within each task specific method statement.

PMC/EHS Team makes the following overall provision of materials and adequate people for first aid:

Name	Location	Contact Number

The appointed and trained first aiders are responsible for:

- Providing suitable first-aid treatment to injured persons
- Making suitable arrangements for further treatment to be given if necessary
- Reporting the issue to PMC/EHS Team Site Management
- Issuing the accident report to the PMC/EHS Team Site Management Team

First Aid Room

A medic and a nurse will present full time on site and will be providing medical services if required.

Location	To be defined
Maintained by	To be defined
Contact Details	To be defined

First Aid Boxes

Location	Number and Size
-----------------	------------------------

First Aid Room/Reception/Canteen & Contractor offices (Ground Floor Site Accommodation Block)	
First Floor Site Accommodation	
On site safety stations	

AEDs are located in strategic positions across the project and identified by the following sign:



Mental Health

The Owner and the PMC/EHS Team seeks to promote and maintain the mental health of all site personnel through workplace practices and to encourage employees to take responsibility for their own mental health and wellbeing.

Mental health first aiders are trained at recognising the signs of mental health issues and will direct personnel to the relevant support services when required.

SECTION 5 - APPENDICES

Sub-Plans & Associated Documents

- [SAM3A EHS - Minimum Performance Requirements](#)
- [SAM3A - Environmental Management Plan](#)
- [SAM3A Emergency Response Plan](#)
- [SAM3A Site Regulation Management](#)
- [SAM3A Emergency Response Team \(ERT\)](#)
- [SAM3A Project Recognition, Coaching and Disciplinary Protocol](#)

Appendix A - Glossary

ACoP	Approved code of practice
A/E	Architect/Engineer
AED	Automated External Defibrillator
AFR	Accident Frequency Rate
AHJ	Authority Having Jurisdiction
AP	Appointed Person
AIR	Accident Incidence Rate
ALARP	As Low As Reasonably Practicable
AP	Appointed Person (Electrical)
BGU	Break Glass Unit
BOTG	Boots on the Ground
CDM	Construction Design and Management
CM	Construction Manager
COSHH	Control of Substances Hazardous to Health
COHE	Control Of Hazard Energy (Electrical, Mechanical)
CPEHSP	Construction Phase Environment, Health & Safety Plan
CPP	Construction Phase Plan
CSC	Construction Safety Coordinator
CSCS	Construction Skills Certification Scheme
CSF	Construction Safety Facilitator (Owner)
CUB	Central Utilities Building
DABs	Daily Activity Briefing
DC	Data Centre

DC EHS	Data Centre Environmental Health & Safety (Owner)
DGTA	Direction Générale Transport Aérien
DSC	Design Safety Coordinator - Coordinator Design - Le coordonnateur projet
DSE	Display Screen Equipment
EHS / HSE	Environment, Health & Safety incl. Wellbeing
EPA	Environment Protection Authority
ERT	Emergency Response Team
FLT	Forklift Truck
FORS	Fleet Operator Registration System
FSA	Facility Service Area
HAVS	Hand Arm Vibration Syndrome
HRA	High Risk Activities
HSE	Health Safety and Environment – Sécurité, santé et environnement (SSE)
HWP	Hot Work Permit
IPAF	International Powered Access Federation
KPI	Key Performance Indicator
LMRA	Last Minute Risk Analysis - L'analyse de risque de dernière minute
LTI	Lost Time Injury
M&E	Mechanical and Electrical
MEWP	Mobile Elevating Work Platform
MHE	Manual Handling Equipment
MOM	Ministry of Manpower
(M)SDS	(Material) Safety Data Sheet
NABs	Night Activity Briefing
NDA	Non-Disclosure Agreement
OHSA	Occupational Health and Safety Authority
OHSC	Occupational Health & Safety Coordinator
PAT	Portable Appliance Test
PC	Principal Contractor
PMC	Project Management Consultant
PD	Project Director
PEP	Project Execution Plan

PFPE	Personal Fall Prevention Equipment
PPE	Personal Protective Equipment - Les équipements de protection individuelle (EPI)
PSCS	Project Supervisor Construction Stage
PSDP	Project Supervisor Design Process
PTW	Permit to Work - Permis de travail
RAMS	Risk Assessment & Method Statement
RD	Belgian Royal Decree - Arrêté Royal
RCD	Residual-current device
RGIE	Belgian Règlement Général sur les Installations Électriques
RPE	Respiratory Protective Equipment
RTW	Return to Work
SAM	Sambre et Meuse Location
SAP	Senior Appointed Person (Electrical)
SCC	Safety Certification Contractors - Liste de contrôle Sécurité, santé et environnement entreprises Contractantes (LSC)
SLT	Safety Leadership Team
SPA	Safe Plan of Activity
SPE	Significant Potential Event
SPC	Specialty Package Contractor
SSOW	Safe System Of Work
TBA	To Be Announced
TBT	Toolbox Talk
TC	Trade Contractor
TSM	Technical Support Manager
TPM	Technical Program Manager
TWC	Temporary Works Coordinator
WAH	Working At Height
WBW	Code on wellbeing at work - Code du bien-être au travail
WRRR	Work Related Road Risk

Appendix B - GSAFE Definitions and Acronyms

Refers to the following [link](#).

Appendix C - Sub-Plans Checklist

Document	Required	Details
Minimum Performance Requirements	Yes	
Emergency Response Plan	Yes	
Site Regulation Management	Yes	
Traffic Management & Logistics Plan	Yes	
Environmental Management Plan	Yes	
Emergency Response Team R&R	Yes	
Control of Hazardous Energies Document and LOTO Procedure	Yes	
HRA Permit System	Yes	

Appendix D - Owner Reference

Procedure GSAFE & Global Project Manual	Provided
Work Equipment	Yes
Lifting Equipment	Yes
Management of Occupational Health	Yes
Contractors EHS Management	Yes
GBL Contractor Management	Yes
Construction EH&S Requirements	Yes
Construction EH&S Requirements - Belgium	Yes
Compressed Gas	Yes
Confined space	Yes
Work at Height and Walking/Working Surfaces	Yes
EU Waste Management	Yes
EU Electrical safety	Yes
Fire prevention and protection	Yes
Personal Protective Equipment (PPE)	Yes
Ergonomics	Yes
Chemical Procurement, Labelling, and Storage, HazCom	Yes
Safety Committee	Yes
Risk Assessment	Yes
Stop Work Authority	Yes
Emergency Medical Services/First Aid	Yes
Occupational Noise and Hearing Conservation	Yes

Appendix E - Referred documents (limited access / Need to know basis)

Document	Required	Details
Training matrix	Yes	Access on request
Violation Log	Yes	Access on request
Coordination and Risk Management Flowchart	Yes	Access on request
COSHH file	Yes	Access on request

Appendix F - Statutory Notifications

Statutory Notifications Authority		✓ or N/A	Correspondence date, file location, comment
1a.	Project Notification Articles 45 to 47 of the Royal Decree of January 25 th 2001. 15 calendar days prior to the start of the work activities, PMC Team must <u>notify the Belgium Social Security</u> : 'Service d'Information et de Recherche Sociale' (SIRS)	✓	Link
1b.	Article 54 of the Royal Decree of January 25 th 2001. Report occupational accidents, hospitalisation, permanent incapacity and fatal	✓	
1c.	<u>National Social Security Office</u> Office National De La Sécurité Sociale	✓	Owner Team to liaise with National Social Office
2.	Local Ambulance Authority <ul style="list-style-type: none"> ● Project name ● Location ● Approx. numbers on site 	✓	Owner and PMC/EHS Team to liaise with Local Ambulance
3.	Local Fire Brigade <ul style="list-style-type: none"> ● Project name ● Location ● Fire plan drawings (Refer to Emergency Response Plan) 	✓	Owner and PMC/EHS Team to liaise with Local Fire Brigade
4.	Local Authority (District Surveyor/Building Control Officer, Environmental Health Officer, City Engineer) <ul style="list-style-type: none"> ● Hoarding licence & temporary public thoroughfare schemes ● Road closure applications ● Services, tunnel access etc. ● Accommodation units placed within buildings 	✓	Owner and PMC/EHS Team to liaise with Local Authority
5.	Police <ul style="list-style-type: none"> ● Project name ● Location ● Approx. numbers on site 	✓	Owner and PMC/EHS Team to liaise with Police
6.	Water Authority <ul style="list-style-type: none"> ● Project name ● Location ● Temporary supplies ● Drainage ● Sewer Entry/work ● Service disconnections/temporary connections ● Underground services drawings ● Consents to discharge (into water courses) 	✓	Owner and PMC/EHS Team to liaise with Water Authority

Statutory Notifications Authority		✓ or N/A	Correspondence date, file location, comment
7.	Gas Authority <ul style="list-style-type: none"> • Project name • Location • Service disconnections • Written confirmation of service termination • Underground services drawings 	✓	Owner and PMC/EHS Team to liaise with Gas Authority
8.	Electricity Authority <ul style="list-style-type: none"> • Project name • Location • Temporary supplies • Service disconnections/isolations • Written confirmation of service termination • Underground services drawings 	✓	Owner and PMC/EHS Team
9.	Telecoms Authority <ul style="list-style-type: none"> • Project name • Location • Serviceconnections/disconnections • Underground services drawings 	✓	Owner and PMC/EHS Team will liaise with Proximus
10	Rail track <ul style="list-style-type: none"> • Liaise with the relevant Engineering Department if project adjacent to Rail track or London Underground 	N/A	
11	Department of Trade & Industry <ul style="list-style-type: none"> • Licence for use of radio communications • Check with radio suppliers 	✓	Owner and PMC/EHS Team will liaise with Department of Trade & Industry
12	Environment Agency <ul style="list-style-type: none"> • Register as Hazardous Waste producer 	✓	Owner and PMC/EHS Team to liaise with Environmental Agency
13	Other Notifications <ul style="list-style-type: none"> • Ground Works 	✓	Owner and PMC/EHS Team will liaise with KLIM-CICC
14	Other Notifications <ul style="list-style-type: none"> • Major accident - fatality 	✓	Owner and PMC/EHS Team will liaise with SPF Well-Being authorities, police and justice if required

Appendix G - EHS Pre-commencement Risk Assessment

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
1	Site Set-Up, Organisation and Preliminaries Related Activities				
1.1	Hoarding Works	Adjacent basement excavation	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height <input type="checkbox"/> Falling materials 	<ul style="list-style-type: none"> <input type="checkbox"/> Edge protection of a suitable height to take into account increased risk of falling due to increased working height <input type="checkbox"/> Debris netting / EHS infills to edge protection 	
		Moving plant and vehicles within construction site	Pedestrian struck by moving plant or vehicle	See 2.1 below	
		Adjacent waterway	See 2.5 below	See 2.5 below	
		Live buried services	See 2.5 below	See 2.5 below	
		Sources of fire, e.g. faulty electrical installation, smoking etc.	<ul style="list-style-type: none"> <input type="checkbox"/> Risk of fire 	<ul style="list-style-type: none"> <input type="checkbox"/> Electrical installations to be undertaken by suitably qualified personnel only <input type="checkbox"/> No smoking in site accommodation <input type="checkbox"/> Suitable fire fighting equipment properly maintained <input type="checkbox"/> Escape plan to be in place and properly communicated <input type="checkbox"/> Fire drills <input type="checkbox"/> All work on/adjacent to live electrical services to be subject to permit 	Site-accommodation fire plan to be prepared prior to occupation
1.2	Temporary Electrics Installation	Faulty electrical installation and / or exposed live cables	<ul style="list-style-type: none"> <input type="checkbox"/> Risk of electrocution 	<ul style="list-style-type: none"> <input type="checkbox"/> Electrical installations to be undertaken by suitably qualified personnel only <input type="checkbox"/> All cables to be routed so as not to expose to damage / be suitably protected <input type="checkbox"/> Approval and certification to be conducted by an accredited 3rd party (Prior to first use). <input type="checkbox"/> Appropriate checking and maintenance regime to be implemented 	Installation works themselves to be subject to stage-specific risk assessment and method statement

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
		Trip hazards from installed cables	<ul style="list-style-type: none"> □ Slips, trips and falls 	<ul style="list-style-type: none"> □ Cables routes to be properly planned and where appropriate protected so as to eliminate this risk, with regular reviews in place., □ Wherever possible, cables should be buried in below-ground ducts. 	
1.3	Delivery Operations	Moving delivery vehicles and plant	<ul style="list-style-type: none"> □ Injury to members of the general public due to being struck by moving vehicle □ Risk of RTA 	<ul style="list-style-type: none"> □ Pedestrian footways to be protected as appropriate (e.g. bollards and fencing) and pedestrians diverted away from areas of highest risk □ Vehicle and pedestrian warning signage □ Delivery vehicles to be banked at all times □ Possible scheduling of particularly large / hazardous loads to avoid peak pedestrian hours 	Traffic Management & Logistics Plan to be complied with by ALL Sub- contractors
1.4	Vehicles and plant leaving site	Vehicles and plant entering the public road Contamination of public roads	<ul style="list-style-type: none"> □ As above 	<ul style="list-style-type: none"> □ All plant and vehicles accessing/egressing site, specific rules in place; roundabout to be used. □ No u-turns on. main road adjacent to site main entrance. □ Panoramic mirrors to be installed to aid visibility □ Plants/Trucks leaving site will go through a wheel washer 	
1.5	Material storage	Potentially unstable stacked materials	<ul style="list-style-type: none"> □ Collapse of stacked stored materials 	<ul style="list-style-type: none"> □ All material storage to be strictly controlled by banksman 	
		Potential obstructions	<ul style="list-style-type: none"> □ Vehicle and pedestrian routes obstructed 	<ul style="list-style-type: none"> □ As above 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
1.6	Tower crane erection	Crane lifting operations including heavy loads and 2nd adjacent cranes	<ul style="list-style-type: none"> □ Crane overturning □ Clash of jibs between tower cranes □ and mobile crane □ Falls from height □ Material falls from height 	<ul style="list-style-type: none"> □ Lift planning □ Verification of platform stability by testing □ Suitably qualified expert erectors, lift supervision and crane coordinator input □ Exclusion zone including suitable 'buffer zone'; also, option to close site and carry-out erection Saturday am. □ Fall protection and rescue measures 	
1.7	Tower and mobile crane operations	Crane lifting operations including heavy loads	<ul style="list-style-type: none"> □ Crane overturning □ Material falls from height □ Loads striking personnel □ Loads striking structures 	<ul style="list-style-type: none"> □ Crane lift planning including duties □ Verification of platform stability by testing □ Suitably qualified and experienced slinger banksman to be responsible for all site crane lifting operations for the duration of the crane's operations on site □ Crane coordinator input □ Additional slinger / banksman to be supplied as required □ Strict and rigorous inspection and maintenance regime to be implemented including for all lifting tackle □ All loads to be suitably secured and netted as appropriate 	Oversailing licence to be obtained
		Simultaneous crane operations on a constrained site	<ul style="list-style-type: none"> □ Clash of jibs/ loads between tower crane and mobile crane 	<ul style="list-style-type: none"> □ Generally, as above although particular attention to be given to planning and 'fool proof' systems of work to avoid potential clashes 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
1.8	Site boundary security	Construction project with many hazards to the uneducated including significant falls from site	<ul style="list-style-type: none"> □ Injury to intruders 	<ul style="list-style-type: none"> □ 2.4m high timber hoarding to be established as soon as practicable to all elevation □ Lighting to all hoarding elevations □ Checking and maintenance regime to be implemented □ 24hr security 	
1.9	Foreign workers	Individuals untrained in EHS matters and unaware of risks to themselves and others on site (due to language barrier)	<ul style="list-style-type: none"> □ Risk to health and safety – both to themselves and others 	<ul style="list-style-type: none"> □ Inductions and method statement briefings must be attended by a suitable translator □ Individual's safety knowledge must be checked and positively verified both at first induction □ All safety signage should be pictorial wherever possible □ Consider the use of safety signage in different languages □ Ensure that individuals are educated with respect to any written safety signage on a regular basis 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
2	Construction Activities				
2.1	Plant, vehicle and pedestrian movements	Moving plant and vehicles within a severely constrained site	<ul style="list-style-type: none"> □ Persons struck by moving vehicles □ Persons trapped by moving vehicles at 'pinch points' 	<ul style="list-style-type: none"> □ Physical pedestrian segregation from moving vehicles □ Clear demarcated vehicle routes including pedestrian crossing points and where necessary bulk timbers □ Designated fenced pedestrian routes □ Appropriate warning signage □ Designated pedestrian routes to avoid 'pinch points' □ Vehicle 'site rules' incl. strictly applied speed limits □ Banksmen / traffic manager to direct reversing vehicles at all times □ Warning lights, reversing alarms (and CCTV where appropriate due to nature of equipment) 	Particular areas of concern re 'pinch points' are the intersection point between west and east basement, temporary vehicular access ramp, East basement proximity to boundary hoarding at ground level and delivery area Temporary staircase to be provided for basement access; no access for pedestrians via vehicular access ramp
		Sudden changes to site layout dictated by the progress of construction	<ul style="list-style-type: none"> □ As above; situation exacerbated by lack of knowledge 	<ul style="list-style-type: none"> □ Adequate warning of changes to be given □ Changes to be properly implemented and communicated □ Changes to be implemented 'out of hours' wherever possible 	
		Trip hazards	<ul style="list-style-type: none"> □ Slips, trips and falls 	<ul style="list-style-type: none"> □ Clear, sound and level pedestrian walkway surfaces to be provided and maintained □ All pedestrian walkways to be adequately lit 	
2.2	Working adjacent 4 – 5m deep basement excavation	Exposed edges	<ul style="list-style-type: none"> □ Falls from height □ Falling plant and vehicles □ Falling materials 	<ul style="list-style-type: none"> □ Suitable personnel edge protection c/w debris netting or EHS infill □ Bulk timber vehicle tops □ Appropriate signage 	Activity-specific risk assessment and method statement also required with respect to edge protection installation and removal itself

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
		Potential instability of temporary works (sheet piled retaining wall)	<ul style="list-style-type: none"> □ As above 	<ul style="list-style-type: none"> □ Heavy plant and machinery to be kept an appropriate distance away from supported edge by the appropriate positioning of physical barriers and warning signage □ Any works necessary immediately adjacent to the supported edge to be subject to an additional assessment and specific safe system of work being developed; e.g. temporary propping works. Nb These works will be permitted. □ Monitoring required. □ Verification calculations to be provided. 	Structural calculations and report by remediation works contractor's engineer available for assessment
		Low and high level operations in close proximity	<ul style="list-style-type: none"> □ As above 	<ul style="list-style-type: none"> □ As above (3 points in 1st item) □ Safe method of work to ensure operations immediately adjacent the edge of the excavation at low and high level are not carried out simultaneously 	
2.3	Plant and machinery (including crane) operating on temporary stone working platform	Potentially insufficient strength in temporary platform to safely support the weight of plant and machinery (including crane)	<ul style="list-style-type: none"> □ Overturning of plant and machinery (including crane) 	<ul style="list-style-type: none"> □ Plate bearing tests to be carried- out to verify the safe platform working load both prior to piling operations, and following removal of sacrificial piling mat following completion of piling works □ Visual inspection □ Remedial works to any areas of concern □ Lift planning 	
		Sloping embankment	<ul style="list-style-type: none"> □ Vehicle and plant overturning 	<ul style="list-style-type: none"> □ Baulk timbers and appropriate warning signage 	
2.4	Construction noise vs. residential area	Plant, machinery and vehicles – operating noise levels	<ul style="list-style-type: none"> □ Nuisance 	<ul style="list-style-type: none"> □ Strict adherence to working hours permitted within planning consent conditions □ Active noise monitoring 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
				<ul style="list-style-type: none"> □ Low noise alternative methods to be employed where practicable □ Vehicles are not permitted to operate on site before 6am - 7pm, unless others agreed with an approved out of hours permit to work. 	
2.5	Breaking ground - general	Unexploded ordnance from 1st or 2nd World War	<ul style="list-style-type: none"> □ Explosion resulting in injury or death due to mechanical plant impact 	<ul style="list-style-type: none"> □ Site survey for unexploded ordnance □ All operations that involve breaking ground are to be subject to permit 	Survey substantially complete – no UXB located. Nb 3nr areas still to be surveyed – under temporary accommodation (2nd locations) and beneath temporary site access ramp
		Existing (and new) buried services		<ul style="list-style-type: none"> □ All operations that involve breaking ground are to be subject to permit □ Detailed review of existing record drawings □ Ground scanning □ Pilot excavation by hand to prove existing service locations when operating within 2m of a known service position □ Maintenance of clear markers 	
		Ground contamination	<ul style="list-style-type: none"> □ Risk of ill health due to effect of skin absorption, ingestion or inhalation of contaminants 	<ul style="list-style-type: none"> □ Hand and skin protection – barrier creams, gloves, overalls, washing / showering □ Material to be removed from site as soon as practicable following excavation, i.e. attendant tipper lorries. If hazardous material is stockpiled, must be isolated and clearly signed □ Minimise contact with skin by employing mechanical means of excavation wherever possible 	Highest levels of contamination likely to be encountered during drainage excavations from ground level. Detailed evaluation of specialist consultant information to be carried-out, operation-specific risk assessments completed and appropriate safe

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
				<ul style="list-style-type: none"> □ Limit exposure by rotation 	systems of work implemented.
		Groundwater contamination	<ul style="list-style-type: none"> □ As above □ Contamination of public sewers 	<ul style="list-style-type: none"> □ Hand and skin protection – barrier creams, gloves, suitable boots, overalls, washing / showering □ Limit exposure by rotation □ Strictly no discharge of groundwater into adjacent waterway □ Monitoring of groundwater contamination levels to ensure that discharge into public sewer remains within permissible limits □ Material to be dampened to prevent dust when being loaded or moved + operators working near this material equipped with P3 masks 	
		Ground-born gases, e.g. CO2	<ul style="list-style-type: none"> □ Asphyxiation 	<ul style="list-style-type: none"> □ Gas monitoring and detection □ Safe system of work to cover the personnel rescue □ Possible additional mechanical supply / ventilation requirement 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
2.6	Deep excavation works	Deep excavation	<ul style="list-style-type: none"> □ Excavation wall collapse □ Falls from height □ Vehicle and plant overturning □ Falling materials □ Asphyxiation due to plant/vehicle exhaust fumes □ Slips trips and falls due to inadequate access and egress provision 	<ul style="list-style-type: none"> □ All excavation works are subject to permit □ Suitable trench wall support either in the form of trench boxes or properly supported / toed-in sheet piling □ Excavations can be sloped, benched and battered at 45 degrees. □ Edge protection (physical barriers) □ Where applicable, bulk timbers / vehicle stops to be installed a suitable distance from excavation wall □ All plant and equipment exhausts to be kept away from excavations □ Proper safe access to the excavation be installed and maintained at all times □ Gas monitoring and detection □ Possible additional mechanical supply / ventilation requirement □ Safe system of work to cover the personnel rescue 	
2.7	Works in confined or enclosed spaces	Noxious gases Oxygen depletion	<ul style="list-style-type: none"> □ Asphyxiation due to noxious gases / oxygen depletion □ Injury when opening the manhole cover 	<ul style="list-style-type: none"> □ All works in confined or enclosed spaces is subject to permit □ Gas monitoring and detection □ Possible additional mechanical supply / ventilation requirement □ Safe system of work to cover the personnel rescue □ Adequate lighting □ Dedicated Manhole Key to be used 	Works include installation of pumps within water tanks/pumping stations, sewer / water connections to existing mains, works in confined plant rooms and risers, etc.

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
2.8	Temporary Works	Potentially unstable temporarily supported structures or temporary works	<ul style="list-style-type: none"> □ Structural collapse Falls from height. □ Material falls from height. 	<ul style="list-style-type: none"> □ All temporary works designed to be carried out by a qualified engineer and submitted with a detailed method statement for approval by Temporary Works Coordinator □ Regular inspection and maintenance □ All temporary works will be subject to permit □ Adequate clear warning signage 	Works to include all designed scaffolds, structural support schemes, falsework/formwork designs, hoist erection, etc.
2.9	Movement of materials / equipment – general	Manual handling	<ul style="list-style-type: none"> □ Risk of damage / ill health; e.g. back injuries 	<ul style="list-style-type: none"> □ Reduce manual handling operations by utilising mechanical means □ Train workforce in handling techniques □ Initially forklift and tower crane to be used for offloading and distribution of materials 	Forklift & hoists to be used for offloading & distribution of materials upon completion of the steelwork & concrete on deck.
2.10	Use of hand-held plant/ equipment - general	Noise Vibration. Misuse of plant/ equipment Faulty plant/ equipment	<ul style="list-style-type: none"> □ Damage to hearing □ Vibration-induced harm, e.g. 'vibration white finger' □ Physical injury 	<ul style="list-style-type: none"> □ Alternative machine-mounted equipment / method □ Selection of appropriate plant and equipment □ Reduce time period of operative use of plant/equipment – e.g. rotation □ Used only by trained personnel □ Planned maintenance regime □ Implement an adequate safe system of work for the use of plant and equipment □ Provision and use of suitable PPE □ use of whip checks on air hoses connections is recommended (Generators) 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
2.11	General - Working with hazardous substances	Substances hazardous to health	<ul style="list-style-type: none"> □ Ill health due to exposure to substances hazardous to health 	<ul style="list-style-type: none"> □ Sub-contractors to review use of the particular substance and provide alternatives which are less hazardous to health where possible □ Method statements to include for using proper control measures where substances are to be used, i.e., venting the area, specialist PPE, etc. □ Education of the workforce by toolbox talks in proper use of material. □ COSHH assessments 	
		Dust generated by movement of site vehicles and plant on temporary stone working platform	<ul style="list-style-type: none"> □ Exposure through inhalation □ Nuisance to surrounding land users 	<ul style="list-style-type: none"> □ Damping-down 	
3	Specific Construction Activities (additional associated hazards not covered above)				
3.1	Reduced Level Excavation & Stone-Up to levels	Change in levels.	<ul style="list-style-type: none"> □ Slips, trips & falls □ Machine / equipment overturning / instability □ Transport of materials across level changes – instability of loads 	<ul style="list-style-type: none"> □ Designated pedestrian access routes to incorporate steps/ramps. □ 'A' frame handrail at significant steps (i.e., 500mm or more subject to risk assessment) □ Highlight changes in level generally by, for example, signage, orange fencing where necessary (subject to risk assessment) 	
3.2	Pile cap and ground beam construction	<p>Trenches & excavations within the basement affect access routes.</p> <p>Unprotected projecting reinforcement starters for walls, etc.</p>	<ul style="list-style-type: none"> □ Compromising guarding of excavations leading to falls, machine instability, etc. □ Cuts/penetration injuries 	<ul style="list-style-type: none"> □ Sequence of operations to be strategically planned to ensure safe access maintained including plating over excavations, etc. □ Reinforcement caps, including their maintenance, or suitable alternative. 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
3.3	Pit/Chamber construction	Unprotected edges Unprotected projecting reinforcement starters for walls, etc. Water hazard	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height <input type="checkbox"/> Machine instability <input type="checkbox"/> Falls from height due to individuals not being aware of extent of hazard 	<ul style="list-style-type: none"> <input type="checkbox"/> Edge protection <input type="checkbox"/> Where vehicular access is still required – stop blocks/plates <input type="checkbox"/> Proper safe access into chambers/pits <input type="checkbox"/> Edge protection <input type="checkbox"/> Plates where possible <input type="checkbox"/> Pump away water regularly 	
3.4	Installation of substructure waterproofing	Materials subject to COSHH assessment	<ul style="list-style-type: none"> <input type="checkbox"/> Possible absorption through skin/inhalation of hazardous substances (i.e., liquid element) 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific COSHH assessment required from subcontractor 	
3.5	Material & plant access/egress from basement	Potential for unprotected edges	<ul style="list-style-type: none"> <input type="checkbox"/> Falls <input type="checkbox"/> Vehicle instability <input type="checkbox"/> Falling materials 	<ul style="list-style-type: none"> <input type="checkbox"/> Methods to be properly planned and agreed <input type="checkbox"/> Edge protection and vehicle stops to remain in place at all times <input type="checkbox"/> Utilise existing ramp as long as possible <input type="checkbox"/> Use of craneage <input type="checkbox"/> Potential hoisting <input type="checkbox"/> Concrete pumps 	
3.6	Cores	Working at height	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Edge protection: platform to be fully enclosed. <input type="checkbox"/> Task specific Method Statement, <input type="checkbox"/> Risk Assessments & Lifting Plans 	
		Falling materials	<ul style="list-style-type: none"> <input type="checkbox"/> Injury due to being struck by falling materials. 	<ul style="list-style-type: none"> <input type="checkbox"/> Edge protection: platform to be fully enclosed. <input type="checkbox"/> Task specific Method Statement, Risk Assessments & Lifting Plans 	
		Lifting operations	<ul style="list-style-type: none"> <input type="checkbox"/> Failure of lifting equipment <input type="checkbox"/> Integrity of lifting components <input type="checkbox"/> Load striking platform 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statement, Risk Assessments & Lifting Plans 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
			<ul style="list-style-type: none"> <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Formwork/Falsework design 	
		Instability/Collapse	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height <input type="checkbox"/> Injury due to being struck by falling materials. <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Instability of temporary/permanent structures 	<ul style="list-style-type: none"> <input type="checkbox"/> Formwork/Falsework design <input type="checkbox"/> Checking of permanent work design <input type="checkbox"/> Permit to strike/load 	
		Improper manual handling	<ul style="list-style-type: none"> <input type="checkbox"/> Injury to personnel 	<ul style="list-style-type: none"> <input type="checkbox"/> Manual handling task specific risk assessments <input type="checkbox"/> Minimise manual handling use mechanical means as far as possible 	
		Moving formwork/ falsework	<ul style="list-style-type: none"> <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Formwork/Falsework design <input type="checkbox"/> Manual handling task specific risk assessments <input type="checkbox"/> Minimise manual handling; use mechanical means as far as possible 	
		High winds	<ul style="list-style-type: none"> <input type="checkbox"/> Instability of temporary/permanent structures <input type="checkbox"/> Falls from height <input type="checkbox"/> Injury due to being struck by falling materials. <input type="checkbox"/> Injury to personnel 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statement, <input type="checkbox"/> Risk Assessments & Lifting Plans <input type="checkbox"/> Formwork/Falsework design <input type="checkbox"/> Create exclusion zones around bottom of cores <input type="checkbox"/> Anemometer to be installed on tower crane <input type="checkbox"/> Wind speed limit to be agreed and strictly enforced 	
		Concrete skip operation	<ul style="list-style-type: none"> <input type="checkbox"/> Load striking platform <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statement, Risk Assessments & Lifting Plans 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
		Hot works at height	<ul style="list-style-type: none"> <input type="checkbox"/> Arc eye <input type="checkbox"/> Burns, injuries from falling embers <input type="checkbox"/> Fire & associated escape 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statement, Risk Assessments & Lifting Plans <input type="checkbox"/> Hot Works Permits <input type="checkbox"/> Screens <input type="checkbox"/> Create exclusion zones around bottom of cores <input type="checkbox"/> Fire extinguishers <input type="checkbox"/> Dedicated fire escape plan from each platform <input type="checkbox"/> Fire watch during cool down period 	
3.7	Drainage (See 2.5 & 2.6)				
3.8	Slabs	Concrete pumping	<ul style="list-style-type: none"> <input type="checkbox"/> Striking personnel or working platforms <input type="checkbox"/> Rupture/blockage of supply lines <input type="checkbox"/> Instability of pump Injury to personnel 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statement, Risk Assessments & Lifting Plan for pump set up <input type="checkbox"/> Maintain line of sight at all times and/or provide banksmen <input type="checkbox"/> Stability of substrate at pump location to be checked 	
		Unsupervised operations late at night	<ul style="list-style-type: none"> <input type="checkbox"/> Injury to personnel 	<ul style="list-style-type: none"> <input type="checkbox"/> Adequate supervision to be provided including First Aid <input type="checkbox"/> Adequate task lighting <input type="checkbox"/> Out of hours permit to be raised and approved prior to commencing works. 	
		Refer to 3.1	<ul style="list-style-type: none"> <input type="checkbox"/> Refer to 3.1 	<ul style="list-style-type: none"> <input type="checkbox"/> Refer to 3.1 	
3.9	Basement Walls	Working at height	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Edge protection to be provided <input type="checkbox"/> Proper access/egress from to/from top of wall shutters 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
				<ul style="list-style-type: none"> □ Scaffold access only to be used when installing shutters □ Tied ladder access with guard rail to be used for access to shutter platform 	
		Lifting of large, heavy formwork/falsework	<ul style="list-style-type: none"> □ Falling materials Striking personnel □ Crushing personnel □ Striking shutters 	<ul style="list-style-type: none"> □ Task specific lifting plan □ Ensure proper fixing lugs are fixed to formwork/falsework and that the design takes this into account 	
		Instability/Collapse of formwork/falsework due to loading of wet concrete	<ul style="list-style-type: none"> □ Collapse resulting in injury to personnel 	<ul style="list-style-type: none"> □ Design of formwork/falsework to be verified □ Permit to load strictly enforced □ Continual checking of the shutters as the concrete is poured 	
		Inadequate access to top of raking props	<ul style="list-style-type: none"> □ Falls from height 	<ul style="list-style-type: none"> □ Adequate access to be provided in the form of access scaffolds, not ladders 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
3.10	Suspended Slabs (Non- composite)	Working at height	<ul style="list-style-type: none"> □ Falls from height 	<ul style="list-style-type: none"> □ Task specific Method Statement, Risk Assessments and Lifting Plans □ Proper access/egress to install falsework/formwork □ Fall restraint to be used during erection of falsework/formwork □ Tied ladder access and guard rails to platform □ Edge protection □ Compliance with manufacturer's instructions for erection □ Workforce experienced in use of specialist falsework 	
		Lifting operations	<ul style="list-style-type: none"> □ Falling materials □ Injury to personnel □ Failure of lifting components □ Integrity of lifting components □ Trapping/crushing injuries 	<ul style="list-style-type: none"> □ Task specific Lifting Plan □ Formwork/Falsework design & checking by specialist □ Equipment inspections prior to lifting operations □ Quarterly accredited 3rd party inspection required 	
		Instability/Collapse	<ul style="list-style-type: none"> □ Falls from height □ Injury from being struck by falling materials □ Injury to personnel □ Instability of temporary/permanent structures 	<ul style="list-style-type: none"> □ Formwork/Falsework design & checking by specialist □ Checking of permanent design □ Permit to load/strike □ Falsework inspection as formwork is loaded with wet concrete □ Exclusion zone to be set up 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
		Striking formwork/ falsework	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height <input type="checkbox"/> Falling materials <input type="checkbox"/> Injury from being struck by falling materials <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping/crushing injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Permit to strike <input type="checkbox"/> Verification of cube strengths <input type="checkbox"/> Proper access/egress to strike <input type="checkbox"/> Fall restraint to be used when striking formwork/falsework <input type="checkbox"/> Compliance with manufacturer's instructions for striking 	
3.11	Erection of steelwork including stairs	Working at height	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments & Lifting Plan <input type="checkbox"/> Use of MEWP/Cherry Pickers <input type="checkbox"/> Fall restraint to be used <input type="checkbox"/> Specific anchorage points to be built into the frame to allow safe installation of stairs <input type="checkbox"/> Scaffold handrails to be installed as soon as stairs/terrace units are installed. 	
		Lifting operations	<ul style="list-style-type: none"> <input type="checkbox"/> Falling materials <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Failure of lifting components <input type="checkbox"/> Integrity of lifting components <input type="checkbox"/> Trapping/crushing injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Lifting Plan <input type="checkbox"/> Equipment inspections prior to lifting operations <input type="checkbox"/> Use of correct lifting equipment <input type="checkbox"/> Exclusion zone to be set up <input type="checkbox"/> Specific lifting eyes, etc to be built into stairs for lifting purposes 	
		Instability/collapse of part erected frame	<ul style="list-style-type: none"> <input type="checkbox"/> Falling materials <input type="checkbox"/> Injury from being struck by falling materials <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping/crushing injuries 	<ul style="list-style-type: none"> <input type="checkbox"/> Temporary works design to be verified <input type="checkbox"/> Use of temporary bracing as work proceeds <input type="checkbox"/> Removal of temporary bracing under permit 	
		Use of MEWPs and/or cherry pickers	<ul style="list-style-type: none"> <input type="checkbox"/> Injury from being struck by MEWP's 	<ul style="list-style-type: none"> <input type="checkbox"/> MEWP only to be used by trained operatives – certificate required 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
			<ul style="list-style-type: none"> <input type="checkbox"/> Overturning of MEWPs <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Works to be carried out within an exclusion zone <input type="checkbox"/> All operatives to wear fall restraint and be connected to anchorage points within baskets at all times <input type="checkbox"/> Plant to be switched off, keys removed when not in use <input type="checkbox"/> Quarterly accredited 3rd party inspection required 	
3.12	Erection of Precast concrete items	Working at height	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments & Lifting Plan <input type="checkbox"/> Planning and coordination to be held prior and during the task. <input type="checkbox"/> Use of MEWP/Cherry Pickers <input type="checkbox"/> Fall restraint to be used <input type="checkbox"/> Specific anchorage points to be built into the steel frame to allow safe installation of stairs <input type="checkbox"/> Scaffold handrails to be installed as soon as stairs/terrace units are installed. 	
		Lifting operations	<ul style="list-style-type: none"> <input type="checkbox"/> Falling materials <input type="checkbox"/> Injury from being struck by falling materials <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping/crushing injuries <input type="checkbox"/> Damage to partially erected steel frame 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Lifting Plan <input type="checkbox"/> All units to have lifting points at locations so as the unit is perfectly balanced for lifting into position thereby requiring minimal control by personnel <input type="checkbox"/> Use of MEWPs to access high points <input type="checkbox"/> Equipment inspections prior to lifting operations <input type="checkbox"/> Use of correct lifting equipment <input type="checkbox"/> Exclusion zone to be set up 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
3.13	Suspended slabs – composite	Working at height	<ul style="list-style-type: none"> <input type="checkbox"/> Falls from height 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments & Lifting Plan <input type="checkbox"/> Installation of safety nets installed prior to laying of decking using MEWPs and by specialist contractor <input type="checkbox"/> Edge protection in the form of a handrail to be installed on top of all perimeter beams, beams forming openings and any internal edges progressively with the steel frame <input type="checkbox"/> Fall restraint to be used where necessary <input type="checkbox"/> Exclusion zone to be set up and enforced 	
		Lifting operations	<ul style="list-style-type: none"> <input type="checkbox"/> Falling materials <input type="checkbox"/> Injury from being struck by falling materials <input type="checkbox"/> Injury to personnel <input type="checkbox"/> Trapping/crushing injuries <input type="checkbox"/> Damage to partially erected steel frame 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Lifting Plan <input type="checkbox"/> Works to be carried out over netted area <input type="checkbox"/> Decking to be delivered properly bound and separated into the correct loads for specific areas, packing restraints to be cut only once deck has been loaded onto steel beams 	
		Stud welding	<ul style="list-style-type: none"> <input type="checkbox"/> Arc eye <input type="checkbox"/> Burns, injuries from falling embers <input type="checkbox"/> Fire 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments <input type="checkbox"/> Hot works permits <input type="checkbox"/> Screens <input type="checkbox"/> Exclusion zones to be set up and enforced <input type="checkbox"/> Fire extinguishers <input type="checkbox"/> Removal of any flammable material on floors below within exclusion zone <input type="checkbox"/> Fire watch during cool down period 	
		Concrete pumping	<ul style="list-style-type: none"> <input type="checkbox"/> See 3.8 above 	<ul style="list-style-type: none"> <input type="checkbox"/> See 3.8 above 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
4	Health Risks				
4.1	Physical				
4.1.1	Exposure to noise levels	Activity that usually involves plant & machinery at high decibel levels in excess of 85 decibels. Vibration	<ul style="list-style-type: none"> <input type="checkbox"/> Occupational hearing loss normally over time. <input type="checkbox"/> Loss of concentration. <input type="checkbox"/> Inability to communicate or to hear fire/ safety alarms 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Noise Risk Assessments <input type="checkbox"/> Attenuation barriers to minimise noise impact <input type="checkbox"/> Timing of the works <input type="checkbox"/> Correct selection of plant to minimise noise <input type="checkbox"/> Training, PPE & information 	
4.1.2	Exposure to Dusts	Activity that involves grinding, crushing, milling, sanding, demolition	<ul style="list-style-type: none"> <input type="checkbox"/> Respiratory complaints such as asthma <input type="checkbox"/> Injury to eyes 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments <input type="checkbox"/> Damping down <input type="checkbox"/> Ventilation <input type="checkbox"/> Correct selection of plant to minimise dust release <input type="checkbox"/> Housekeeping <input type="checkbox"/> Training <input type="checkbox"/> PPE 	
4.2	Chemical				
4.2.1	Solvents	Activity that involves working with solvents.	<ul style="list-style-type: none"> <input type="checkbox"/> Respiratory complaint <input type="checkbox"/> Headaches <input type="checkbox"/> Eye & skin contamination <input type="checkbox"/> Fire 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, COSHH Risk Assessments <input type="checkbox"/> Ventilation <input type="checkbox"/> Training <input type="checkbox"/> Storage <input type="checkbox"/> PPE 	
4.2.2	Lead	Activity that involves removing lead-based paints, heating lead, etc.	<ul style="list-style-type: none"> <input type="checkbox"/> Respiratory complaint <input type="checkbox"/> Neurological complaint 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, Risk Assessments <input type="checkbox"/> Ventilation 	

Nr	Activity	Key Project Specific Hazards	Key Project Specific Risks	Key Project Specific Controls	Additional Comments
				<ul style="list-style-type: none"> <input type="checkbox"/> Health Surveillance <input type="checkbox"/> Training <input type="checkbox"/> PPE 	
4.3	Biological				
4.3.1	Rats Urine/Pigeon excrement	Activity that involves working in or around, water and outside areas	<ul style="list-style-type: none"> <input type="checkbox"/> Bacterial infection through open wound on the hand/arm or touching mucous membrane with contaminated hand causing Weill's 	<ul style="list-style-type: none"> <input type="checkbox"/> Task specific Method Statements, COSHH Risk Assessments <input type="checkbox"/> Good hygiene <input type="checkbox"/> Training <input type="checkbox"/> PPE 	
4.4	Psychosocial				
4.4.1	Monotony	Activity that involves repetition over long periods of time.	<ul style="list-style-type: none"> <input type="checkbox"/> Loss of mental focus and focus on tasks. 	<ul style="list-style-type: none"> <input type="checkbox"/> Job rotation <input type="checkbox"/> Adequate breaks <input type="checkbox"/> Provision of drinking water 	
4.4.2	Unsocial Hours	Activities that happen early in the morning or late at night.	<ul style="list-style-type: none"> <input type="checkbox"/> Fatigue <input type="checkbox"/> Loss of mental concentration and focus 	<ul style="list-style-type: none"> <input type="checkbox"/> Job rotation <input type="checkbox"/> Adequate breaks <input type="checkbox"/> Avoidance of lone working 	
4.5	Wildlife				
4.5.1	Wild Boars	Activities that happen early in the morning or late at night.	<ul style="list-style-type: none"> <input type="checkbox"/> Unpredictable behaviour 	<ul style="list-style-type: none"> <input type="checkbox"/> Stay calm <input type="checkbox"/> Don't run <input type="checkbox"/> Don't threaten them <input type="checkbox"/> Stay in a safe place 	