

# ETHEKWINI MUNICIPALITY Occupational Health & Safety Unit

## Site Specific Health and Safety Specification in terms of 2014 Construction Regulations 5.1(b)

Document Title	Site Specific Health and Safety Specification
Client	eThekwini Transport Authority eThekwini Municipality
Project Name	Widening of Sea Cow Lake Road between Chris Hani Road up to and including the overhead rail bridges on Sea Cow Lake Road, including full depth layer works
Contract Number	1T-34277
Revision	01
Date	30 May 2023
Internal Reference No.	SSHSS 114/05/2023
Compiled by Senior Safety Officer	Name: Nombulelo Khanyile
	Signature:
Reviewed by Manager Safety & Risk	Name: Arty Zondi
	Signature:



Arial view of the construction area

## ACCEPTANCE OF CONDITIONS OF THESE SPECIFICATIONS

☐ The Principal Contractor must Insurance when signing this docume	provide a certified copy of his Public Liability ent.
l,	the Contractor, do hereby declare that
my company	acknowledge having read and
understood the conditions contained	d in this legal document and furthermore we agree and
accept to abide by the conditions a	and requirements of the act.
SIGNATURE CONTRACTOR:	DATE
SIGNATURE WITNESS	PRINT NAME:
AGENT ACTING ON BEHALF OF THE C	LIENT:
NAME:	DATE
SIGNATURE:	
SIGNATURE WITNESS	PRINT NAME:

# AGREEMENT WITH MANDATARY IN TERMS OF SECTION 37(1) AND (2) OF OHS ACT 85 OF 1993

#### **DEFINITION OF MANDATARY**

 Includes an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or a user.

#### **DEFINITION OF AGENT**

 means any person who acts as a representative for a client in the managing the overall construction Work.

### **SECTION 37(1)**

- (1) Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that- (a) In doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
  - (a) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and

all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question, the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect hereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

### **SECTION 37(2)**

The provisions of subsection (1) shall mutates mutandis apply in the case of a mandatory of any employer or user, except if the parties have agreed in writing to the arrangements and procedures between them to ensure compliance by the mandatory with the provisions of this Act.

### **ACCEPTANCE BY MANDATARY**

In terms of the provisions of Section 37(2) of the Occupational Health and Safety Act, Act 85 of 1993, and Construction Regulation 4(1) (c), I, \_\_\_\_\_(Appointed 16(2) person) Acting For And on behalf of \_\_\_\_\_ (Company / Close Corporation/Enterprise/ Owner/User) undertake to ensure that the requirements and provisions of the Act and Regulations are complied with. Print Name:\_\_\_\_\_\_\_.(Agent, Principal Contractor or Contractor) Signature: \_\_\_\_\_at\_\_\_\_\_\_. Designation: \_\_\_\_\_\_. Date: \_\_\_\_\_. Mandatory-COIDA / Federated Employers Mutual Mandatory- Professional Indemnity Insurance no: . CLIENT Print Name: \_\_\_\_\_\_. (Appointed 16(1) Person/Client/Agent of Client or Principal Contractor) Signature: \_\_\_\_\_at \_\_\_\_\_. Designation: \_\_\_\_\_\_ Date: \_\_\_\_\_\_.

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#### 1. DEFINITIONS

For the purpose of this Construction Health and Safety Specification, all definitions in the Occupational Health and Safety Act and Regulations, the abbreviations and the definitions given hereunder shall apply; where definitions may overlap, the most onerous requirement shall apply:

Acronym or Definition	Meaning	
Agent	Refer to the Agent appointed by the Client to act on its behalf, and who is appointed in writing	
CHSS	Refers to this document as the Construction Health and Safety Specification	
Client	Refers to eThekwini Municipality	
COIDA	Means Compensation for Occupational Injuries and Diseases Act 130 of 1993	
Construction Site	Means the premises and grounds where construction work is being performed	
Principal Contractor	Means an employer appointed by the Client to perform construction works	
CR	Refers to the Construction Regulations of 2014	
DSTI	Refer to a documented daily safe task instruction compiled and issued by a contractor and trained to all relevant employees	

H&S	Refers to Health and Safety	
Medical Certificate of Fitness	Means a valid medical certificate of fitness issued by an occupational medicine practitioner, such medical testing shall be relevant to the risks of the construction work on the construction site and shall conform to the Occupational Health and Safety Act and Regulations and to the requirement of this Health and Safety Specification	
Method Statement	Refer to a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in the Risk Assessment	
OHSA	Refer to the Occupational Health and Safety Act	
Regulations	Refer to the Regulations stipulated in the OHSA	
S	Refer to a section in the OHSA	
SACPCMP	Means the South African Council for the Project and Construction Management Professions	
Sub-Contractor	Means an employer appointed by a contractor of the Principal Contractor	

2. PROJECT DESCRIPTION AND THE INTRODUCTION TO THIS HEALTH AND SAFETY SPECIFICATION.

The works will broadly include:
<ul> <li>□ The widening of Sea Cow Lake Road between Chris Hani Road up to and including the overhead rail bridges on Sea Cow Lake Road, including full depth layer works</li> <li>□ Widening of the existing rail bridges over Sea Cow Lake Road.</li> </ul>
<ul> <li>□ The establishment of public spaces by providing paved walkways, median islands and pedestrian crossings.</li> <li>□ Protection or relocation of existing services</li> </ul>
☐ Upgrading, reconstruction or new construction of surface drainage systems
a opgrading, recensulation of new conduction of carrage dysterns
ACTIVITY 1:
This includes all roadwork's, storm water and other services relating to the widening of Sea Cow Lake Road from Chris Hani Road and up to and including overhead Rail Bridges. This includes all new and relocation of services; construction of new road layer works; construction of pedestrian medians. Upgrading, reconstruction or new construction of surface drainage systems, including installation of new storm water pipes, or modification of existing storm water pipes, together with construction of related kerb inlets, grid inlets, cut-off drains, inlet and outlet structures.
ACTIVITY 2:
All Structural work relating to the widening of existing overhead rail bridges accommodating 2 Transnet lines and 1 PRASA line. The bridge construction involves different reinforced concrete deck on a launching yard and launched into final position under the existing railway lines. The foundations involve the installation of piles. The substructure construction will involve the capping beams. Once the superstructure and substructure are constructed, the underpass will be excavated for the new roadway.
ACTIVITY 3:
Associated rail infrastructure upgrades as a result of Activity 2 (bridge widening) above. a. Transnet double-line:  The existing overhead Tension Bridge needs to be moved to a new position as a result of the bridge widening. Design and construction of the new Overhead Tension Bridge. All related designs must be incorporated. All designs must be in accordance with Rail agencies specifications.  Establish whether a new suspension point for the overhead cables is required before the tunnel due to the relocation of existing Tension Bridge. Design of suspension point, if required. All designs must be in accordance with Rail agencies specifications.
<ul> <li>b. PRASA single- line:</li> <li>□ The existing overhead concrete mast and steel mast poles (universal columns) need to be moved.</li> <li>Design of new steel mast poles (universal columns) is required, in accordance with minimum spacing requirements</li> </ul>
Along the railway track radii. All designs must be in accordance with Rail agencies specifications.

c. General (all 3 lines):
□ Relocation of other existing overhead and underground services (signalling cables,
telexcommunications cables, including fibre optics)   Design of track clearance/ pro tection to the necessary Rail Agency Specifications during construction
□ Design and approval of the temporary track support for all three railway lines (length is a minimum of 20m)
<b>IMPORTANT:</b> Activity 3 includes obtaining signed approvals from rail authorities PRASA, Transnet Freight Rail and Rail Safety Regulator, before procuring services from a contractor. Liaison with the rail authorities is needed, along with the necessary approvals process for rail closures and times that are needed. The correct procedure should be followed, within the allowable notification period for rail agencies to accommodate rail closures.

#### **Programming of Work:**

Working on and near operating railway infrastructure requires the contractor adhere to strict working times, and ensuring that penalties are imposed should the contractor cause delays to the rail service. A typical construction programme has been included that has been provisionally accepted by the rail authorities. This approval will need to be finalized. Approval needs to be sought from rail agencies within an acceptable time frame in order for closures to be facilitated with the clients of rail closures

#### <u>Transnet Freight Rail</u> (Referred to as "Temple")

- Occupations for "Between Train" or "Single Line" work can be granted for a longer period of time as long as 1 line is always left open for the running of the service and adequate approval time is allowed usually 3 months.
- For a "Double Line" closure, this will only be allowed once a month on a predetermined Sunday. Your occupation for this request can fall within the times of 06h00 18h00 and once again need approval.
- Notice/Request of any shutdowns must be provided 3 months in advance in order for TFR to plan for the shutdown

#### **PRASA** (Referred to as "Greenwood Park")

- Every evening from 20h00 to 03h00 the following day
- On weekends: Friday 20h00 to Monday 03h00 (with provision of commuter buses on Saturday and Sunday during the day)

This Construction Health and Safety Specification is published in terms of the Occupational Health and Safety Act of 1993 (OHS Act), Construction Regulations 2014, Regulation 5(1) (b)

The CHSS does not replace the Construction Regulations, 2014, but is a supplementary specification as required in terms of the Regulations. The Principal Contractor is at all times required to and will remain responsible to fully address all requirements and standards of the Occupational Health and Safety Act, Regulations and the Construction Regulations. Inclusive of the Health and Safety Plan and implementation thereof.

The Client has appointed an Agent who will (inter alia) be responsible for the approval of all Principal Contractors H&S Plans, for the auditing and monitoring of the Principal Contractor implementation thereof and for maintaining the document control associated with the CHSS.

#### 3. LIMITATIONS OF LIABILITY

The Client or its Agent shall not be responsible for any acts or omissions of any contractor which may directly or indirectly result from the application of the CHSS or any project specific version thereof.

All contractors must ensure that articles, work, equipment, machinery, plant and work practices are, at all times compliant to the legal requirements as these apply.

The Client or its Agent shall limit its responsibility to the application of the Construction Regulations Clients Requirements only.

The Principal Contractor shall enter into a Mandatory Agreement with the Client, as defined in Section 37(2) of the Occupational Health and Safety ACT.

The Principal Contractor shall ensure that each contractor appointed by the Principal Contractor and each sub-contractor appointed by a contractor also into a Mandatory Agreement with the Principal Contractor, as defined in Section 37(2) of the Occupational Health and Safety ACT. These agreements shall be included in the Principal Contractor's H&S File on site and be valid for the duration of the contractors' work on the construction site.

#### 4. PURPOSE OF THE CONSTRUCTION H&S SPECIFICATION

The purpose of the CHSS is for the specification to be used as the standard on which Principal Contractors H&S Planning and safe work execution must be based

This CHSS will be applicable to all construction work and shall be implemented for the complete project until project close out.

This CHSS defines the client's standard by which all occupational health and safety risks shall be controlled at the construction site.

All employers working on the construction site shall conform to the standard in the CHSS. All the duties of a Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and sub-contractors of such contractors...

#### 5. IMPLEMENTATION OF THE CONSTRUCTION H&S SPECIFICATION

This CHSS forms an integral part of the Contract, and Principal Contractors H&S Planning and safe work execution must be based.

The Principal Contractor shall ensure that the H&S Plan contain sufficient evidence of:

- Adequate provision for the cost of safety measures
- The Principal Contractor access to and intention to appoint persons with the necessary competencies to carry out the construction work safely.
- The Principal Contractors access to the necessary resources to carry out the construction work safely and without risk to the health of the workers.
- The Principal Contractor's planning of construction activities within the special requirement emanating from personnel deployment, time constraints and language barriers.

The Principal Contractor shall allow in their cost provision for complying with the requirements of this CHSS; resources for the following H&S controls shall be in place.

	H&S cost item	Description
1.	Full time safety officer	Full time attendance on site of a SACPCMP registered safety officer from the start of construction until the end of project handover

2.	Competent H&S Design	Services of competent designers for temporary works, scaffolding, fall arrest and recovery systems
3.	First Aiders	Standard first aid training Special (additional) fall recovery first aid training
4.	Competent inspectors (trained, certified, competent)	Statutory inspections of excavations, temporary works, fire extinguishers, lifting equipment, lifting machinery, ladders, construction vehicles and mobile plant, portable electrical equipment, etc.
5.	Mandatory training in site legal register and risk assessments	Training of all employees holding statutory appointments as competent persons ensuring that they are familiar with the Occupational
		Health and Safety Act and Regulations. H&S induction and Risk Assessment training all employees in Daily Safe Task Instructions
6.	Training of employees in H&S	Occupational Health and Safety Training in accordance with the skills matrix included in the approved H&S Plan.

	H&S cost item	Description
7.	Provision for working in close proximity of live over head rail powerlines	Occupational Health and Safety and Rail Safety Training and emergency equipment to ensure employees are kept safe
8.	Medical certificate of fitness	Medical examination of all employees and certification of fitness by an Occupational Medicine Practitioner Pre- employment, annual and exit medical examination is required

9.	Supply and training for PPE	Standards set for all employees Special sets including: fall arrest, special respiratory, adapted hearing protection, adapted hand protection, adapted eye and face protection
10.	Dust mitigation	To reduce dust exposure to the employees and the public
11.	Public protection and barricading	To reduce risk exposure to the employees and members of the public
12.	Employee facilities	Refer to the Facilities Regulations (drinking water, change facility, personal lockers, and wash facilities, eating facilities.

#### 6. SCOPE

The works will broadly include:

- The widening of Sea Cow Lake Road between Chris Hani Road up to and including the overhead rail bridges on Sea Cow Lake Road, including full depth layerworks □ Widening of the existing rail bridges over Sea Cow Lake Road.
- The establishment of public spaces by providing paved walkways, median islands and pedestrian crossings.
- Protection or relocation of existing services
- Upgrading, reconstruction or new construction of surface drainage systems
- Change in alignment to Umgeni Iron Works driveway as well as and associated infrastructure

Works is located between the PRASA and Transnet railway lines, the driveway access lies between the two existing rail bridges on Sea Cow Lake Road. The road realignment necessitates a reconfiguration of the access and internal driveways to Umgeni Iron Works. This will involve construction of road works, a new weighbridge that is in the way, some carport structures and associated services

This CHSS covers the client's requirements for addressing, mitigating and controlling Occupational Health and safety related risks, problems, incidents and injuries during the construction work.

The scope addresses legal compliance, hazard identification and risk assessment and the promotion of a health and safety culture amongst those working on the project.

The CHSS contains clauses that are generally applicable to construction and imposes controls associated with activities that impact on human health and safety

The Principal Contractor is required to comply with the provisions of the OHSA, all applicable Regulations and this CHSS.

The client Agent will monitor the Principal Contractor's compliance with the requirements of the OHSA and the approved H&S Plan.

# 7. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT

The Principal Contractor, each contractor and each sub-contractor shall submit proof of Good Standing with COIDA Commissioner or a Mutual Association licensed in terms of Section 30 of COIDA, prior to starting any work on site.

A copy of the Letter of Good Standing with COIDA Commissioner must be included in the H&S Plan of each contractor working on the site and must remain updated for the duration of the construction work.

#### 8. APPLICATION FOR CONSTRUCTION WORK PERMIT

The Principal Contractor shall assist the Client in compiling the evidence required by the Department of Labor for the issuing of the Construction Work Permit.

The Principal Contractor shall ensure that the H&S Plan presented for approvals includes:

- Evidence that the Principal Contractor made adequate provision for the cost of H&S measures
- Evidence that the Principal Contractor has the necessary competencies and resources to carry out the construction work safely.
- A copy of the Letter of appointment of the Construction Manager ito CR 8(1) + proof of his qualification, competence and registration where applicable.
- Proof of the registration of the Principal Contractors safety officer with the

#### SACPCMP.

The Principal Contractor shall display the work permit number at the main site entrance. This display must be conspicuous to the satisfaction of the Department of Labor. The permit must be noticeable.

The construction works can only commence once the construction work permit is issued by the Department of Labor.

#### 9. CONSTRUCTION MANAGER

The Principal Contractor shall appoint a full time competent person as the construction manager with the duty of managing all construction on the site.

The construction manager must be exclusively dedicated to the construction site

Proof of competency of the construction manager shall be incorporated in the H&S Plan; and as a minimum this shall include:

- Proof of professional training
- Proof of experience in the construction scope of work defined in the CHSS.
- Proof of experience in H&S management for as defined in the scope
- Proof of training in the OHSA, CR and evidence that a training provider certifies the construction manager to be familiar with the OHSA and with the applicable regulations made under the Act.

The construction manager shall be responsible to ensure that the following duties are executed and shall actively communicate with the Client-Agent in order to:

- · Confirm and provide compliance and
- Discuss any compliance constraints which may be experienced.

The construction manager may be assisted by the safety officer and, where such an arrangement is planned, the H&S Plan of the Principal Contractor shall clearly define the respective duties of the construction manager and of the safety officer.

The construction manager shall be appointed in writing and reference to compliance of the Client specification must be stipulated in the appointment letter.

The construction manager shall present the site-specific health and safety plan, based on this health and safety specification to the client agent and shall discuss and amend the H&S Plan until finally approved by the client agent.

The construction manager shall ensure that the H&S Plan is reviewed and updated as work progresses.

The construction manager shall open and keep the site health and safety file to ensure that at all times this file is on site and available to an inspector, the client, the clients agent or contractor.

The construction manager shall provide contractors and sub-contractors with this CHSS.

The construction manager shall only approve the H&S Plan by a contractor and a sub-contractor if there is sufficient evidence that the contractor:

- Has made sufficient provision for health and safety measures during the construction process.
- Has the necessary competencies to perform the construction work safely and
- Has made the necessary resources available to perform the construction work safely.

The construction manager shall ensure that all contractors appointed by the Principal Contractor have a compliant H&S Plan, prior to appointing the contractor and prior to allowing the contractor to start working on the site.

The Construction Manager shall ensure that contractors have evidence of both registration and good standing in terms of COIDA and shall not permit any contractor to start work on the site unless a valid Certificate of Good Standing is on site.

Additional to the requirements of the Construction Regulations, the Principal Contractors construction manager shall ensure that all sub-contractors appointed by any of the contractors of the Principal Contractor comply with the construction regulations and, in particular the construction manager shall:

- Assess and finally approve H&S Plans of all these sub-contractors; without such approval these contractors are not permitted onsite.
- Ensure that employees of these contractors are also inducted in the H&S induction program

- Audit these contractors monthly
- Stop unsafe work or work not in accordance with the approved H&S Plan.

The construction manager together with the safety officer shall ensure that daily inspections of the health and safety compliance of all contractors and subcontractors on site are performed and documented in the Principal Contractor H&S File.

The construction manager together with the safety officer shall ensure that monthly site audits and document verification is conducted of all contractors and all subcontractors on site.

The construction manager shall stop all construction work which is not in accordance with the CHSS or with the principal contractor's health and safety plan or which poses a threat to the health and safety of persons.

The construction manager shall ensure that, where changes are brought about to the design and construction on the site, sufficient health and safety information and appropriate resources are made available to any contractor to which the changes apply.

The construction manager shall hand over a consolidated health and safety file to the Client Agent upon completion of the construction work.

The construction manager shall ensure that a comprehensive and updated list of all the contractors on the site that is both those directly accountable to the principal contractor and those accountable to other contractors is kept in the H&S File. The list must refer also to the work

The construction manager shall ensure that a comprehensive and updated list of all the contractors on the site that is both directly accountable to the Principal Contractor and those accountable to to other contractors is kept in the H&S File. The list must refer also to the work performed by the contractors, the date of the approved H&S Plan, the expiry date of the COIDA Letter of Good Standing, the last monthly audit date and the agreement between the parties.

The construction manager shall ensure that no employee accesses the worksite unless that employee is in possession of a valid medical certificate of fitness specific to the construction work to be performed and filed on site in the H&S File.

The construction manager shall ensure that site rules and regular communication processes are in place in order to obtain co-operation between all contractors on site.

The construction manager shall ensure that all persons on site have undergone the relevant site health and safety induction of the principal contractor

An up to date register of all employees on indicating the date of H&S induction, the expiry date of medical certificates of fitness and the employee's job title

The construction manager shall ensure that all fall risk work is performed in accordance with the fall protection plan and that at all times an updated fall protection plan is filed in the H&S file on site. Where fall recovery procedures are defined, the construction manager shall be responsible for ensuring that the necessary emergency engineering and administrative risk controls are in place, on stand—by and adequately controlled to ensure immediate assistance at all times when work is performed which poses a suspension risk. Where environmental conditions prevent safe work, the construction manager shall ensure timeous work stoppage.

The construction manager shall ensure that all work on site is performed under supervision of a competent person appointed by the principal contractor.

The construction manager shall ensure that all incidents are investigated and that the final reports thereof is assessed and approved in writing by the construction manager

The construction manager shall ensure that all Finding-and Audit Reports are assessed, that corrective action is planned and executed and confirmed in writing.

#### 10. CONSTRUCTION SAFETY OFFICER

The Principal Contractor shall appoint a competent Construction Safety Officer for the construction work at the Client.

The Construction Safety Officer shall define the duties of the appointed safety officer in the H&S Plan.

The Construction Safety Officer shall be full time on the construction site for this project.

The Safety Officer shall be registered with the South African Council for the Projects and Construction Management Professions. The Principal Contractor may appoint a registered H&S manager to act in the capacity of project safety officer as well

Proof of competence and registration of the appointed construction safety officer must be included in the H&S Plan.

The Principal Contractor together with the appointed sub-contractors must conduct an assessment to determine appointment of their safety officers, this assessment should consider the scope and size of the sub-contractors works, applicable risk control measure to be implemented and conclude the necessity to appoint full or part time registered safety officer to site. This assessment and conclusion must be communicated to the Agent before the sub-contractor commences on site.

#### 11. PRINCIPAL CONTRACTOR'S HEALTH AND SAFETY PLAN

The Principal Contractor shall submit a suitable, sufficiently documented and coherent specific health and safety plan and start-up H&S file for this construction project, in accordance with the legal requirement prior to work starting. H&S file

This H&S plan and file must be presented to and approved by the Agent prior to the site being handed over to the Principal Contractor prior to the Principal Contractor being allowed on site. N work may start by any Principal or other Contractor unless the relevant health and safety plan is approved.

The H&S plan shall be presented as part of the start-up H&S file; all evidence of controls which are documented in the H&S plan must be placed in the H&S file

The H&S file and plan must follow the exact index as defined in Annexure A and Annexure B respectively of this document.

Chapters not relevant in the table of contents must be stipulating not applicable to the scope of works, but the numbering must be continuous and identical to the Annexures.

Additional controls or chapters may be added at the end.

Besides the legal requirements, the site-specific health and safety plan for approval shall include:

A cover page indicating:

- The contract reference
- The name and address of the Contractor and the name of the CEO

- The name and signature of the designated person in terms of Section 16(2)
- The name and signature of the Construction manager
- A space for the Client Agent to sign for final approval.

An index for the H&S plan

The Principal Contractor's Occupational Health and Safety Policy signed by the CEO.

A detailed site specific overview of the scope and activities of the project; this overview must include all work controlled by the Principal Contractor whether directly or through the services of a contractor or sub-contractors.

An overview of the machinery and plant used in the project this overview must include all machinery and plant directly or indirectly through the services of a contractor or sub-contractor controlled by the Principal Contractor.

Proof of the competency in Occupational Health and Safety of the Principal Contractor.

An overview of the site-specific budgeted resources for Occupational Health and Safety.

A site-specific baseline hazard identification and risk assessment as performed by the appointed risk assessor

- Risk Assessment of all activities identified in the scope of work shall form an integral part of the Health and Safety Plan
- The baseline risk assessment will include all work which is planned to be done by all contractors and sub-contractors.
- All risk assessments shall be conducted in terms of an acceptable and documented methodology, prior to commencement of work and in accordance with the provisions of the CR.
- The risk assessment must be based on the scope of work and the machinery and plant as defined above.

Controls for identified hazards must be formulated in method statements or operating procedures for the activities of the project; the method statement must be based on the scope of work and the risk assessment.

A detailed outline of the site-specific emergency and accident arrangements on site. Particular attention must be made to fall risk and confined space work emergency management.

An outline of the PPE to be used and the management of such PPE on site.

A list of inspection registers which will be kept on site

Medical certificates of all employees planned to start work

The Principal Contractor's action to ensure that all appointed contractors and subcontractors fully comply with the Regulations and with the CHSS, including but not limited to:

- The approval methodology for H&S plans of contractors and sub-contractors,
- An inclusion of signed agreements in terms of Section 37(2) between the Principal Contractor and every contractor & sub-contractor appointed at the start of construction.

The site-specific Health and Safety induction document used to ensure that all employees and all visitors on site are conversant with the risks on site and the content of the Health and Safety plan and what role they are expected to play in ensuring Health and Safety on the construction site.,

#### 12. HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Principal Contractor shall appoint competent person(s) to perform a sitespecific baseline risk assessment and thereafter, ongoing issue based hazard identification and risk assessments. There may be more than one risk assessor appointed if this is required.

The competent risk assessor(s) shall form part of the team working on the site

The risk assessment must be based on the scope of work, the site specific materials required and the site specific machinery, equipment and structures applied during the construction.

Risk Assessments of all site specific risk activities identified in the scope of work, including those performed by contractors and sub-contractors, shall form an integral part of the H&S Plan and all risks controls (including those executed by

contractors and sub-contractors) shall be documented. The baseline assessment will be included in the H&S Plan

Additional risk assessments shall be conducted when:

- · A new machine is introduced on the site
- A system for work is changed or operations altered
- · After an accident or near miss has occurred
- New knowledge comes to light and information is received which may influence the level of risk to employee's onsite.

Issue based risk assessment, risk monitoring and risk review shall be done at the hand of pre task risk assessment communicated to all employees; a system of daily safe task instructions may be used. The risk assessment must include:

- · A daily documented listing of hazardous events
- A daily documented listing of H&S risk controls
- Proof of communication of the above to all employees, the Client requires that the Principal Contractor shall ensure that all employees on site are conversant with the content of the all relevant risk assessments, the appropriate measures to either eliminate or reduce the identified risk. The Principal Contractor shall outline to employees what role they are expected to play in the risk assessment and control measure process.

#### Continuous risk assessment

In order to maintain a safe and risk free environment continuous risk assessments (e.g. Daily Safety Task Instructions (DSTIs) must be undertaken on a daily basis for all activities undertaken

The Principal Contractor shall include a method for risk review ensuring that all the risks on site are adequately managed

All risk assessments must document all H&S controls which any contractor plans to put in place.

#### 13. HEALTH AND SAFETY FILE

The Principal Contractor shall provide and maintain an H&S File, containing all relevant documents as prescribed in the OHSA and applicable Regulations and all forms or records referred to in the H&S Plan.

The startup H&S File shall be presented together with the H&S Plan for approval prior to work starting.

The H&S File shall be kept on the construction site and available for inspection by the Client Agent or the Department of Labor Inspectors

The content of the H&S File shall follow a specific order as per Annexure B of this document and be in line with the H&S Plan

Sections not relevant in the table of contents in Annexure B must stipulate not applicable, but numbering must be continuous and remain identical to Annexure B

Additional controls or chapters may be added at the end pending the risk exposure

The H&S File shall include an index as per Annexure B

The H&S File becomes the property of the Client after completion of the project. The Principal Contractor is also required to scan the file in an electronic format and hand over the electronic format.

#### 14. HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEE

#### Health and Safety Representatives

- The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in OHSA.
- The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on the site.
- The H&S representative shall at all times be on site and report to the Health and Safety Officer and Construction Manager.

#### Health and Safety Committee

• The Principal Contractor shall ensure that the H&S committee meets on a monthly basis

 The Principal Contractor's management and each contractor shall be represented at the H&S committee meeting; contractors with more than 20 employees shall have an H&S representative at each committee meeting and each contractor shall have a management member attending each H&S committee meeting.

#### 15. CLOSE-OUT CONSOLIDATED HEALTH AND SAFETY FILE

The Principal Contractor shall compile a consolidated H&S file and hand over to the Agent at the end of the project handover this shall be applicable to all contractors and sub-contractors as well.

The Principal Contractor shall therefore submit a consolidated close out file inclusive of all contractor information

The consolidated H&S File shall be in hard copy and in CD format The consolidated file shall include:

- A copy of the approved H&S Plan of the Principal Contractor
- Project H&S management plans, H&S Plan, Fall Protection Plan, Emergency Plan, Storm Water Management, Traffic Management
- Project baseline risk assessment
- Designer inspections/assessments and confirmation of conformance
- Monthly risk and Incident reports
- Incident registers & IOD investigation record
- COIDA Claim incidents and supporting medical treatment record
- The completed final register required in the Staffing on Site chapter of this CHSS
- Monthly H&S performance report
- Monthly H&S audit reports from the Agent and the enjoining corrective action reports
- Endorsed minutes of H&S committee meetings 

  Employee list as required in this CHSS 

  Records of exit medical records.

A reference record of all drawings, designs and materials used

A reference record of H&S statutory certificates required by the owner; this reference record shall indicate the designated person at the Principal Contractor,

who is responsible for the document and the client-designate to whom the document has been handed.

The comprehensive list of all the contractors on site accountable to the Principal Contractor

An index of all inspections and reference to the inspection registers on site

A list of responsible persons appointed in statutory positions for the duration of the project

A list of all occupational injuries and diseases including the name of the injured, the reference number of the Annexure 1 document and the reference number of the COIDA notification of the injury(if any)

All documents relating to any reportable injury disease during the construction work, as defined in Section 24 and 25, of the Occupational Health and Safety Act, Act 85 of 1993.

#### 16. INDUCTION AND HEALTH AND SAFETY AWARENESS

Each employee working on site shall be inducted in Health and Safety and the operating rules on site.

The Principal Contractor shall develop project specific induction training programme in Health and Safety for the site, to ensure that all employees are conversant with:

- The risk of the Construction project
- The controls documented in the H&S Plan
- The role of employees in ensuring health and safety on the construction site
- The emergency arrangements on site
- The general health and safety rules applicable to the site, considering the works is being performed with great exposure to any member of the public.

The Principal Contractor shall ensure that all employees have gone through the induction training before commencing duties on site.

The contents of the induction programme and method of ensuring that all employees are inducted will be documented in the H&S Plan and the Principal

Contractor is advised that a generic induction or a human resource induction shall not be sufficient for the Client to accept the H&S planning for the construction work.

When working on the site, each employee of any contractor and sub-contractor accessing the site including management shall complete the Principal Contractors induction; the Principal contractor shall ensure that none of his or his contractor's employees accesses the site unless having being inducted by the Principal Contractor.

Each visitor shall be inducted in the risk and risk controls which the visitor may be exposed to the visitor's induction and method to ensure compliance shall be documented in the H&S Plan.

The Principal Contractor shall ensure that each of the Project team and their employees are inducted in the applicable H&S controls on the site.

The induction must include exposure to snakes while working in a greenfield site, adequate control mitigation must be implemented by the Principal Contractor. Control measures must be pro-active such as animal and plant search and rescue, active monitoring of animal movement on site. Wearing of appropriate personal protective equipment and sourcing the services of the snake catcher if required.

#### 17. HEALTH AND SAFETY TRAINING

Competency of employees and ongoing training in H&S matters shall be documented by including a training and compency matrix in the H&S Plan.

The matrix in the H&S Plan shall be a training needs matrix and shall indicate competency requirements safe working processes:

- Each applicable safe work instruction must be included in the H&S Plan
- The method of training and ensuring competence must be included in the H&S Plan

The Principal Contractor shall ensure that specific pre-task health and safety instructions are given to all employees.

The methods for ensuring that training in safe work instructions and that pre-task instructions occur shall be described in the H&S Plan.

#### 18. INSPECTION, MONITORING AND REPORTING

The Principal Contractor shall carry out regular safety planned task observations on high risk activities and planned H&S inspections on the site, and shall take steps to rectify any unsafe acts or condition.

The appointed Construction Manager and the Safety Officer shall perform regular inspections and document these in the H&S File.

The relevant inspection templates and the frequency of inspections shall be included in the H&S Plan.

The H&S Plan shall contain a list of all the inspection registers which shall be on site and templates of such must be available in the H&S File:

- The templates must correlate with the machinery and equipment listed on the site
- The inspector responsible for the inspection and maintenance of the register must be appointed in writing. Proof of training and competency in the performance of the inspections must be documented.

#### 18. INCIDENTS, ACCIDENTS, NEAR MISSES AND EMERGENCIES

All near misses, incidents and accidents must be recorded, investigated and managed in accordance with the statutory provisions.

Each H&S incident, near miss and accident must be recorded in a register kept in the H&S File.

Every accident shall be reported to the Agent that is as soon as the Construction Manager or the supervisor or the Principal Contractor becomes aware of it.

- Such reporting must occur via direct contact (person to person or via telephone) and via e-mail
- Incident investigation process must be followed by competent role players and a preliminary investigation report must be submitted to the Agent and Owner within 24 hours for review and comment

• Final investigation must be finalised by the Principal Contractor and submitted to the Agent within 5 working days unless requested otherwise.

A record of all incident investigations shall be kept in the health and safety file and all records shall be made available to the Client without, this includes records relating to Section 24 of the OHSA.

Where a fatality or permanent disabling injury or any incident referred to in Section 24 occurs on the Construction site, the Principal Contractor must ensure that the Provincial Director is provided with a report contemplated in Section 24 of the Act, in accordance with Regulations 8 and 9 of the General Administrative Regulations, 2013 and that the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site as far as reasonably practicable.

The Principal Contractor shall ensure that contractors and sub-contractors apply the same measure and shall require that this process is documented in this contractors H&S Plan. The Principal Contractor's H&S Plan shall include a specific procedure in this regard, which shall include all documents and instructions in respect of any incident referred to in Section 24 shall immediately and unconditionally be forwarded to the Client Agent.

The contractor shall organize and document detailed emergency and accident arrangements on site and outline these in detail in the H&S Plan. These arrangements shall be specific for the site H&S risks.

The emergency arrangements shall be displayed on site and shall include:

- A comprehensive emergency and evacuation plan
- An emergency flow chart
- An updated list of emergency numbers

A site emergency and evacuation plan shall be included in the H&S Plan.

#### 19. FIRST AID MANAGEMENT

The Principal Contractor shall ensure that adequately trained first aiders are on site at all times when construction employees are on site: this is even applying if less than 10 employees are on site.

The Principal Contractor, any contractor or sub-contractor shall ensure that it appoints a trained first aider on site regardless the number of labor on site

First aiders shall be identified and shall have immediate access to a comprehensively stocked first aid box

Such first aid box shall be stocked to include all first aid equipment as per the minimum requirements listed under General Safety Regulations 3, and any additional items identified in the risk assessment.

Where shift work is performed, each shift shall comply with the above first aid requirements

All the above controls shall be documented in the H&S Plan.

#### 20. AUDITS AND INSPECTIONS

The Client Agent shall conduct regular health and safety inspections and audits to ensure legal compliance and compliance with the Principal Contractors H&S Plan

Records and findings and audits shall be kept in the Principal Contractors H&S File together with a record of any non-conformance report, investigation and corrective & preventative action

The Principal Contractor shall document corrective action planning and forward this to the Client within 72 hours of receiving the finding

The Principal Contractor's H&S Plan shall document the corrective and preventative action procedure applicable to the project, including the planned method to ensure that non-conformities are managed immediately

The Client Agent shall stop allow any work which does not conform to the H&S Plan which is contradictory to statutory requirements or which poses a threat to the health and safety of persons.

The Principal Contractor shall conduct and document monthly health and safety audits of all contractors and sub-contractors to ensure compliance with the OHSA,

its Regulations and the Principal Contractor H&S Plan and of these contractors H&S Plan.

Records of Principal Contractor's audits of all contractors and sub-contractors on site shall be kept in in the Principal Contractors H&S File together with a record of any non-conformance report, investigation and corrective & preventative action by sub-contractors and shall be made available to the Agent during monthly H&S audits.

# 21. HOT WORK, FIRE RISKS, FIRE EXTINGUISHERS AND FIRE FIGHTING EQUIPMENT

No open fires are allowed on the site

No smoking is allowed on site, except in designated smoke areas, identified by the Principal Contractor. The H&S Plan shall include the Principal Contractor's arrangements for managing smoking on site.

All flammable products must be stored in an adequate storage facility; this process shall be documented in a method statement in the H&S Plan

The Principal Contractor shall provide suitable fire extinguishers which shall be serviced regularly in accordance with the manufactures recommendations.

Safety signage shall be prominently displayed in all areas where fire extinguishers are are located. The Principal Contractor shall arrange for training of the relevant personnel, in the use of fire extinguishers.

The fire extinguisher inspection register and the letter of appointment of the competent inspector shall be included in the H&S Plan.

No hot work is permitted on site unless appropriate screens, fire prevention, fire extinguishing and documented safe work permit system are all in place to prevent risk of veld fires and other related fires on the site.

The Principal Contractor shall include a hot work method statement in the H&S Plan for approval. Each person that performs hot work shall be trained in the use of a fire extinguisher and this training shall be documented in the H&S File.

# 22. LIVE ENERGY WORKAND ELECTRICAL RETICULATIONS AND MACHINERY.

The Principal Contractor shall appoint a competent electrician who shall ensure zero potential of all electrical reticulations worked on and who shall ensure that dedicated power sources are safely installed for the use during construction. A registered competent electrician shall also be responsible to ensure safe and compliant electrical installations

The Principal Contractor shall appoint a competent person to identify and inspect all exposed underground cables, overhead cables or any other electrical installations to ensure that these are not a hazard to any person.

The competent person shall certify and inspect all temporary electrical installations and machinery the frequency shall be determined in the H&S PLAN

The letters of appointment, proof of competency and registers applicable to these inspections shall be included in the H&S Plan

All electrical cables shall be assumed "alive" and where applicable, the Principal Contractor shall take adequate steps to ensure that all persons are prevented from accessing any electrical installations.

All existing electrical services must be assumed live at all times.

No live energy work shall be performed. Contractors will ensure that all energy is brought to zero potential that residual energy is purged that energy sources care switched off and locked out by all employees working in the danger zone and are tagged, prior to any work being performed on the energy source or reticulation

The Contractor shall include a zero Potential Lock out Tag Out method statement and safe instruction(s) in the H&S Plan.

The Principal Contractor shall ensure that all electrical testing equipment to be used on site has a valid calibration and that the calibration sticker is affixed to the equipment, clearly indicating the calibration date and the next due date.

Any unsafe condition shall be reported immediately to the Client and the Principal Contractor shall take immediate steps to prevent employees or members of the public from gaining access to the dangerous installation and the area surrounding it.

The Principal Contractor shall appoint a competent person to inspect all portable electrical tools including the leads. The letter of appointment and template of this inspection register shall be included in the H&S Plan

The Principal Contractor shall include a method statement for the safe use of portable electrical tools including the management of the hazards of extension leads

Where temporary installations are installed a C.O.C for these installations shall be included in the H&S File.

Where applicable the contractor shall include any electrical dangerous work procedure in the H&S Plan

Wayleave or permits must be obtained in those work sections whereby works are executed close to railway lines, underground service lines where applicable

Works is located between the PRASA and Transnet railway lines, the driveway access lies between the two existing rail bridges on Sea Cow Lake Road.

### 23. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

The Principal Contractor shall ensure that every employee is issued with, and wears SABS-approved P.P.E. consisting of all PPE identified in the risk assessment

All the contractors' employees shall wear full length overalls and shall wear identification with respect to the employer.

All employees performing construction work shall wear steel-capped safety boots and a hard hat

Hard hats used by employees working with a fall risk shall have adequate chinstrap

Employees working in the vicinity of mobile plant and construction vehicles shall wear a reflective vest; reflective stripes on overall do not meet the required visibility shall not suffice

The use of respiratory protective equipment shall be defined in the site risk assessment and validated at the hand of hygiene measurements of airborne pollutants for the specific risk

The H&S Plan shall contain an outline of the PPE to be used and the management of such PPE on site including the issuing of PPE, overnight storage and all disposal of PPE.

Construction Health and Safety Specification

Failure to use protective equipment as per the risk assessment shall require disciplinary intervention and this process shall be documented in the induction

Disposal of PPE must conform to the Environmental Regulations.

#### 24. OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall erect and maintain quality safety signage The signage shall include but is not limited to:

- The construction work permit number displayed at the entrance
- Access restrictions
- A sign indicating that all visitors must report to the site office and must be accompanied by the Principal Contractor when accessing the site
- The name and telephone number of the responsible person(s)

Emergency telephone number(s)

- PPE to be worn at the particular site
- When falling objects may occur, relevant barricading and warning signs must be erected
- Excavations, heights structures, temporary structures and all risk areas must be indicated as per the specific methods defined in the H&S Plan.

#### 25. CONTRACTORS AND SUB-CONTRACTORS

Contractors and sub-contractors must be given a copy of the H&S specification and any additional specification issued by the Client and shall comply with these specifications integrally. All employers working on the site shall conform to the standard in the CHSS. All the duties of the Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to subcontractors of such contractors.

The Principal Contractor shall ensure that all contractors and sub-contractors under his control, plan the construction work in an H&S Plan, approved by the Principal Contractor, such H&S Plan and H&S File shall be in accordance with Annexure A and B respectively prescribed in this document.

Whenever a contractor or sub-contractor's H&S Plan is approved, the Principal Contractor shall communicate with the Agent for acknowledgement of the approval done by the Principal Contractor.

Principal Contractors shall ensure that all sub-contractors comply with their H&S Plans based on all applicable H&S specification, the requirements of the OHS and all relevant legislation.

Regular planned task observations, planned H&S inspections and monthly audits of all contractors and sub-contractors must be recorded and filed in the Principal Contractor's H&S File, for the inspection by the Client Agent

The Principal Contractor shall ensure that the comprehensive and updated list of all the contractors and sub-contractors on site includes:

• A reference to the agreements between the parties, including all contractors Section 37(2) agreements with the Principal Contractor 

- The type of work being done
- The date of the approval of the H&S Plan

The date of expiry of the COIDA certificate of good standing

· The date of the last monthly audit

The Principal Contractor H&S Plan must include the Principal Contractor's procedures / controls.

#### 26. FALL PROTECTION AND FALL RISK WORK

The construction work includes fall risk work

The Principal Contractor shall submit the name and curriculum vitae of the competent person who has been appointed to prepare the fall protection plan together with the signed letter of appointment in the H&S Plan.

The fall protection plan shall strictly comply with the requirements of the OHSA and the planning shall be commensurate with the fall risk work.

The fall protection plan shall include all fall risk work which is planned to be performed by contractors or sub-contractors

The Principal Contractor and any sub-contractor shall ensure that:

- All risk work is planned and forms part of the safe task instructions; note that:
- 1. Work from a ladder or where ladders are used as access tool are potential exposures of employees to falling fro, off or into and such work is considered 'heights work'
- 2. There is no minimum or maximum height defining fall risk
- 3. Fall risk work done on an ad hoc basis of which or which form part of abnormal or emergency processes shall be risk assessed and employees shall be instructed in the safe work process prior to work commencing.

- Only trained and competent persons with a valid certificate of fitness are permitted to perform fall risk work.
- All medical certificates for fall risk work are issued by a registered occupational practitioner and are included in the H&S File.

Where the use of harnesses is indicated in the fall protection plan, the H&S Plan shall include the following:

The need for the use of fall prevention – or fall arrest harness

The safe application, attachment and maintenance process for harnesses

The type of harness and the type of hook to be used

The specific attachments points applicable to the fall risk work; any safety attachment shall be risk assessed by a competent person appointed in writing who shall also inspect and finally approve the attachment

The method of storing the harness when not in use

The method and register for the safety inspection and harness. A fall recovery method statement.

 A method statement shall be included to control the safe placement of sheeting on the roof structure during construction; the number of sheets per pack, the method of strapping packs for lifting and for the placement on site and the attachment of packs to the roof structure in such a manner that inclement weather risk is mitigated.

# 27. LADDERS

- Ladders shall be compliant to statutory requirements
- Ladders shall only be used for the purpose for which they are designed for.
- Ladders shall be inspected regularly and the record of the inspection shall be kept in the H&S File
- A-Frame ladders shall have a patent spreader bar system
- Ladders shall extend at least 900mm above any level or opening accessed with a ladder.
- No vertical ladders shall be accessed by any person unless firmly attached at the bottom or top or held in place by a fixed installation or buddy.

# 28. TEMPORARY WORK

# Temporary works designer:

The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works designer in the H&S Plan.

The temporary works designer shall be competent to design, inspect and approve the erected temporary works on site before use.

The Principal Contractor, the Construction Manager and temporary works designer shall ensure that:

- The temporary works drawing or any other relevant document includes construction sequences and method statements.
- The temporary works designer has been issued with the latest revision of any relevant structural design drawing.
- The temporary works design and drawing is used only for the intended purpose and for a specific portion of a construction site.
- The temporary works drawings are approved by the temporary works designer before the erection of any temporary works
- The temporary works design and drawing are used solely for this intended purpose.

# Temporary works supervisor

The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works supervisor in the H&S Plan.

The temporary works supervisor shall supervise all temporary works operations and shall ensure that all equipment used in temporary works structure are carefully examined and checked for suitability before being used.

# The Principal Contractor shall define risk controls in the H&S Plan which ensure:

- That a team of competent persons adequately erect, support brace and maintain all temporary works structures, the H&S Plan shall contain the evidence that all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform these operations safely.
- That all temporary works structures are capable of supporting all anticipated vertical and lateral loads that may be applied to them and that no loads are imposed onto the structure that the structure is not designed to withstand, this includes the requirement that the foundation conditions are suitable to

- withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.
- That all temporary works structures are done with close reference to the structural design drawings.
- That where any uncertainty exists, the services of a structural designer are available and that consultation and advice is acquired prior to risk work performed.
- That all erected temporary work structures are inspected and approved by the temporary works designer before use.
- That all temporary work structures are inspected by the temporary works supervisor immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed, the inspector must be appointed in writing and proof of competency must be included in the H&S Plan. The register documenting the results of the inspection must be placed in the H&S File
- That no person cast concrete or place a load on a temporary work structure until authorization in writing has been given by the designer
- That after casting concrete the temporary structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load, and is not removed until authorization in writing has been given by the temporary works supervisor.
- That any non-conformity identified during work with temporary works structures is prevented and corrected
- Safe use of solvents or oils or any other similar substances are used in temporary works operations (see also hazardous chemical substances)
- That access to temporary work structure is solely by means of secured ladders or staircases for all work to be carried out above the foundation bearing level and fall prevention structures must be erected preventing persons from falling off the temporary work structure during erection and dismantling, during the casting of concrete, during inspection and during any work performed on the top of the structure after casting. Where no fall prevention can be secured, a fall arrest system shall be included in the design and shall be complied with at all times.

#### 29. EXCAVATION AND PILING WORK

- The letter of appointment and proof of competency of the competent excavation supervisors and inspectors shall be placed in the H&S Plan.
- A template of the inspection registers must be placed in the start-up H&S
   File
- The Principal Contractor shall take cognisance of the geotechnical study
  pertaining to the conditions of the construction site and must plan all
  excavation work in accordance with the recommendations of the professional
  engineer.
- The Principal Contractor must ensure that every excavation, including all bracing and shoring, is inspected daily, prior to the commencement of each shift and that no person enters the excavation or works in a risk zone until the excavation is assessed and declared safe.
- All excavations must be left open for the minimum of time required and those
  that are left open on the site must be protected by a barrier or a fence of at
  least one meter in height as close to the excavation as is practicable. The
  protective barrier or fence must adequately prevent persons from falling into
  the excavation and barrier taping is not sufficient for this purpose
- Excavation shoring and bracing, if required shall be designed by a designer appointed in writing who shall inspect and approve the installed shoring and bracing
- Where persons work, inspect or test excavations, warning signs must be in place next to an excavation
- The risk controls for ensuring excavation safety, including working inside and around excavations must be documented in the H&S Plan.

# Pilling Works

The Principal Contractor shall ensure where pilling is required that the works undertaken by a specialist contractor.

A works risk assessment and safe works procedure must be approved by Principal Contractor evidence of such approval must be shared with the Agent before works commences.

# 30. SCAFFOLDING

The Principal Contractor shall submit the appointment letter and proof of competency of the competent persons appointed as:

- · Scaffold designer
- Scaffold erectors
- Competent person to inspect, maintain, move or dismantle scaffolds
- Competent persons to supervise all scaffolding operations

The H&S Plan must include the signed letters of appointment and the proof of competency.

The Principal Contractor shall ensure that all scaffolding complies with the requirements of the OHSA and Regulations and with the requirements of Temporary Works in the CHSS.

Scaffold erectors and inspectors must be formally trained and certified competent such training must conform to the requirements of SANS 10085

Scaffolds must be clearly tagged with safe access signage, scaffolds must be inspected daily prior to use and weekly by the scaffold inspector. All scaffolds on site must be individually identified and display a safe / not safe sign.

Inspections by the scaffold inspector must be documented on the scaffold tag and in a register; a template of the tag and of the register shall be included in the H&S Plan

All scaffolds must be accessed with a ladder only. Ladders must be inside the scaffolds and hatches must be close ladder – openings in decks

All scaffold decks must be fully covered and barricaded so as to prevent persons working there from falling off.

Scaffold erectors must attach a fall prevention harness at all times; the double lanyards must be fitted with scaffold hooks only

The H&S Plan shall include the safe work instructions applicable to all employees working on scaffolds and the method of ensuring competency

Standard scaffolding designs, approved by a competent designer of the Principal Contractor may be included in the H&S Plan and all such scaffolds must conform to this standard.

#### 31. PUBLIC HEALTH AND SAFETY

The site shall at all times be secured to prevent the unauthorized access of persons to construction risk areas and processes taking in consideration the ———proposed alignment

Appropriate health and safety signage shall be posted and access control to site must be exercised via a single access point.

All members entering the site must indicate in what capacity they visiting the site.

The access point must be designed and constructed to allow for temporary parking, entry of construction vehicles, entry of personnel transport vehicles and entry of individual workers and other persons.

The principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards from onsite activities and the precautions to be observed to avoid or minimize those risks

Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

#### 32. NIGHT; WEEK -END WORK AND FATIGUE

No night or weekend work shall be performed unless authorized by the Principal Agent or Lead Engineers

Where week end work is planned the Principal Contractor shall ensure that its construction supervisor is on site, this applies even if only contractors or subcontractors are working on the site

Where week end work is planned each contractor or sub-contractor shall ensure that its construction supervisor is on site, this applies even if the Principal Contractor's manager or supervisor is on the site.

The site risk assessment shall include a fatigue risk assessment. Abnormal working hours shall be included in the risk assessment. A fatigue management procedure shall be defined in the H&S Plan

#### 33. FACILITIES FOR EMPLOYEES

The Principal Contractor shall document the construction site's method to ensure the statutory application of employee's rights in terms of employee facilities as defined in the OHSA, the General Safety Regulations and the Construction Regulations including:

- The provision of facilities for safekeeping and changing.
- The method of ensuring that employees require changing on site can do so in privacy
- The provision of an eating area
- The provision and maintenance of sufficient toilets on site \( \Bar{\pi} \) Drinking water

#### Contractor's toilets must be:

- Fixed so as to avoid being blown over by strong winds
- Signs posted "Male" and "Female" use
- Sanitised daily, an inspection and sanitising record must be kept in the H&S
   File
- Inspected daily and where bucket collections are in place, emptied at least twice a week and one of these occasions must be on Fridays.

#### 34. CRANES AND LIFTING OPERATIONS

The following shall be applied to any crane used on the site, including truck mounted cranes on delivery vehicles:

Each shall have (in the cab or operating are) the following legal documents on site at all times:

- The latest and up-to-date load certificate of the crane
- A record of the 6 monthly inspection of the crane by a registered inspector
- The crane operator(s) current crane licence
- The crane operator(s) medical certificate of fitness, issued by an occupational medical practitioner
- The inspection register or certification of 3 monthly inspections of all lifting equipment used with the crane.

Where applicable, the H&S Plan shall include the method statement for each erection, maintenance, inspection and dismantling of the crane.

The H&S Plan shall include the method statement for safe use of the crane, including the method of communication, the protection of fall zones and the method of determining whether the weather permits safe crane work.

Any fixed crane's load test certificate shall be included in the H&S File

All lifting equipment and gear used on site shall be identified, SWL-indicated and listed in the register contained in the H&S File

A template inspection register of the lifting gear shall be included in the H&S Plan

The H&S Plan shall include a specific method statement listing the planned lifts and the planned methods of attachment and rigging

Where man-lift equipment is used, the Principal Contractor shall ensure compliance with Driven Machinery Regulation 18 and that competent persons are appointed in writing to ensure:

- That all scissors lifts, cherry pickers, forklift with man-cage or any other lifting machine used to lift personnel are used only by a trained and competent operator in possession of a competency certificate issued by an accredited provider who holds a valid accreditation issued by an authorised body, in terms of the SAQA Act, and is approved by the Chief Inspector in terms of the Driven Machinery Regulation 18
- That all lifting machines are load tested and inspected as required in the Driven Machinery Regulation 18 and that the records thereof are either with the machine or in the Principal Contractor's H&S File.

The Principal Contractor shall ensure that deliveries using cranes comply with the above requirements and that all legal documents are kept in the cab of the delivery truck whilst on the Client's site.

Complex lifting or heavy lifts may require a documented lifting plan.

# 35. STORAGE AND USE OF FLAMMABLE LIQUIDS

No flammable substances must be stored on site unless these are stored in a flammable store or cabinet approved by the Municipal Chief Fire Officer, no other materials shall be stored in the flammable store or cabinet

Where required the H&S Plan shall include a method statement detailing the safe use, storage, decanting and spill controls for all flammable liquids used and stored on site.

#### 36. HAZARDOUS CHEMICAL SUBSTANCE

With respect to hazardous chemical substances used, the contractor shall ensure that:

- All MSDS are included in the H&S File
- A HCS risk assessment is included in the H&S Plan
- The safe use, storage, emergency procedures and safe disposal of hazardous substances are addressed in a method statement(s) included in the H&S Plan.
- Proof of competency and signed letters of appointment of the person responsible for chemical handling is included in the H&S File.

Any hazardous chemical substance intended to be applied on site during the project (i.e. after approval of the H&S Plan) shall be subject to an issue-based risk assessment and method statement which must be presented to the Client Agent prior to the substance being introduced on site.

#### 37. BATCHING AND CONCRETE WORKS

If batching occurs on site:

- The Principal Contractor must appoint a competent bulk mixing plant supervisor in writing
- A bulk mixing plant operator must be appointed and no other person(s) may operate the plant.
- The Principal Contractor must ensure that the machinery and plant comply with the legal requirements and is suitable for the application on the construction site
- The bulk mixing plants installation, maintenance and repair record document on site at all times

• The bulk mixing plant procedure is included in the H&S Plan and the relevant documents to be used are placed in the start-up H&S File.

#### 38. EXPLOSIVE FASTENING DEVICE

The principal Contractor shall submit proof of competency and the appointment letter of the person in charge of explosives actuating fastening devices and of the person in charge of the issuing and collection of cartridges and nails. This shall be placed in the H&S Plan.

The H&S Plan shall include the method statement for the safe use of explosives actuating fastening devices including the type PPE, barricading and warning notice which the Contractor intends to use and the method of accounting for cartridges and nails.

The H&S Plan shall include proof of training and competency of all operators using explosive actuating fastening devices.

A template inspection register of explosive actuating fastening device shall be included in the H&S Plan.

A template record for the issuing and collection of cartridges and nails shall be included in the H&S Plan.

For the purpose of acquisition / transport of the cartridges the Principal Contractor is required to hold a permit in terms of the Explosive's Act. This permit for the transportation of Blank cartridges used in Power-Actuated Tools shall be placed in the H&S Plan:

- Application for registration, licenses and permits must be submitted by the Chief Inspectors Office in Pretoria.
- The Principal Contractor is required to be in possession of a continuous transport license, but is not required in terms of the Explosives Act to hold a permit for the use of the blank cartridges.
- Once the cartridges are delivered to the appointed responsible person is then required to ensure that the Regulations governing the safe use of explosive

powered tools in terms of the Construction Regulation 21 of the Occupational Health and Safety Act, Act 85 of 1993 are complied with.

# 39. HOUSEKEEPING AND WASTE MANAGEMENT, STACKING, STORAGE AND DROP ZONE

The Principal Contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site.

A method statement of the safe management of the drop zone shall be included in the H&S Plan.

A method statement for the safe lowering of materials shall be included in the H&S Plan

All devices of building materials shall be controlled by the appointed person and no haphazard storage shall occur among other specific storage plans shall be in place for;

- The safe storage of bulk imported materials and containers and the management of this area
- The safe storage of bricks, blocks and kerbs, no pallets shall be stocked on top of each other.
- The safe placement of reinforcing steel and roofing-ceiling and cladding materials
- The safe placement of scaffolding and temporary work materials

The Principal Contractor shall appoint a person responsible for site –wide control and removal of scrap, waste and debris.

No hazardous waste, combustible materials and containers shall accumulate on the construction site.

The Principal Contractor shall document a waste management method statement in the H&S Plan. Such method statement shall include all liquid, gaseous or solid waste produced during the construction process Waste management must comply with Environmental legislation

All waste skips removed from the site must be recorded and proof of final deposit at a registered waste site (waste disposal certificate) must be on record in the H&S File.

Waste bins for domestic waste must

- Be placed in all eating areas
- Have a functional lid, which prevents windblown dust and entry by monkeys 
  ☐ Be emptied daily.

#### 40. CONFINED SPACE

All confined pace work to be performed in accordance with the approved safe work procedure and risk assessment in additional to confined space work measures provision must also be made for safe access into / from confined spaces as well as access inside confined spaces e.g. pipes on steep slopes

The Principal Contractor to ensure all confined space entry and works performed in such be in compliance with legislative requirements defined in General Safety Regulations that form part of the OHS Act.

#### 41. CLIENT OH&S RISK ASSESSMENT

The Client has identified the construction risk associated with the proposed construction projects and defined this corresponding H&S specification which defines the standard of H&S controls. It's therefore important to be advised that over and above the standard H&S controls identified in this specification the contractor must ensure all applicable legislated requirements must be implemented and adhered to.

# 42. OCCUPATIONAL HEALTH.

The H&S Plan shall include:

- The Occupational Hygiene surveys which are planned as a result of the baseline risk assessment if required
- All medical certificates of fitness for all employees working on the site.
- All placements of medical surveillance records of employees who are or required to be under medical surveillance, the record may be the latest periodical medical examination report.

The standard for the Occupational medical testing is defined hereunder:

- Medical certificates of fitness issued by a registered occupational medicine practitioner are defined valid.
- The H&S Plan shall include the name and proof of registration of the Occupational medicine practitioner appointed by the Principal Contractor to perform the medical examinations
- The Principal Contractor and every contractor shall ensure that a Person Job – Specification is issued for each job title deployed on the construction site
- Where employees have current medical certificate of fitness at the start of construction, those shall be assessed for compliance by the Agent for approval...

# 43. ACCESS, TRAFFIC MANAGEMENT AND CAMP SITE

All employees of all contractors working at the construction site shall access the site in vehicles which have seats firmly secured and adequate for the number of employees to be transported this means personnel may be transported in the load body of a LDV or a truck and that all construction personnel must be brought to site in a bus, taxi or inside the cab of a vehicle.

No employee shall be transported together with goods or tools.

Each vehicle shall have a serviced portable fire extinguisher at all times

The Principal Contractor shall ensure that all employees and visitors are aware and comply with the sites safe speed restriction defined by the Principal Contractor at the hand of the risk assessment.

All activities planned to occur in the campsite shall be risk assessed and planned, this include risk controls for the parking of staff and visitors vehicles parking of

mobile plant and machinery dedicated storage areas, planned and compliant stacking practices, traffic controls, including the safe separation of pedestrians (employee) transport from risk areas...

When working in or near the road where change of traffic of flow or warning of motorist is needed in SADC Road Traffic Signs Manual Volume 2 Part 13 must be used, in order to warn oncoming traffic with the appropriate display of signage. The contractor shall submit a Traffic Management Plan and Pedestrian Control Plan indicating relevant measures for all construction work areas. Such Plan must be approved before any road works may commence. Specific emphasis to be placed on vehicle as well as pedestrian traffic signage.

Prior to commencement of road works the contractor shall have all the required road traffic warning signage available as stipulated in his approved Traffic Management Plan. Such measures shall also include warning signage, reflectors and signals at night. Where needed water filled yellow Jersey Barriers / steel barriers or concrete shall be used. Where required flag person(s) to be trained and appointed. The implementation of the Traffic Management Plan must be monitored continuously and daily inspections need to be carried out by a competent appointed person.

#### 44. IONIZING RADIATION

Where ionizing radiation (isotopes or electrically produced X rays) is deployed on site the Principal Contractor shall ensure that the necessary appointments of competent persons and all Department of Health- defined inspections, measurements, tests and records thereof are on site and filed in the H&S File

Only authorised personnel appointed in writing shall work with ionizing radiation.

A method statement shall be included in the H&S Plan, detailing radiographic testing notifications, permit application and approvals considering the risk associated with works.

#### 45. STAFFING ON SITE

The Principal Contractor shall compile a list of all employees on site indicating:

- Name and ID number
- Designation (job title)
- Date of OHS Induction on site
- Date of expiry of medicals

The employee list shall be included in the start-up H&S File and maintained thereafter.

The H&S Plan shall include a method statement on communication on site this shall address:

- Language and any transition methods
- Communication methods within and between teams (radio controls and permits)
- Emergency communication methods
- Regular planned meeting and communication sessions planned by the Principal Contractor.

# ANNEXURE A BASELINE RISK ASSESSMENT

REFER TO THE CLIENT'S BASELINE RISK ASSESSMENT (see attachment)

# ANNEXURE B CONTENTS AND NUMBERING OF THE H&S PLAN

- 1. Index of the H&S Plan
- 2. Letter of Good Standing with COIDA
- 3. Principal Contractor's Health and Safety Policy
- 4. Scope and activities, machinery, plant, equipment, hazardous articles and selected contractors to be used and hazardous materials and articles used in the project.

- 5. Project specific baseline hazard identification and risk assessment and risk register
- 6. Health and Safety Resources and Budget
- 7. Organisational chart indicating:
  - List of employees
  - List of competent person appointed
  - Signed letters of appointed competent persons
  - Evidence of competency and OHS competency
  - Medical certificates of fitness of all employees' medical surveillance reports of all health risks exposed employees.
- 8. Construction Manager, duty, responsibility, communication
- 9. Safety Officer, duty, responsibility, communication
- 10. Principal Contractor H&S management processes this must include in the specification
- Management of the issue based risk assessment, risk review and risk monitoring
- H&S Induction, training and H&S competency management (including OHS and applicable safe work instruction templates)
- General record keeping management
- Contractor and sub-contractor management
- Site communication management
- Fall protection plan and method statements for height work  $\square$  First aid accident and incident and emergency management
- Safety signage management
- Access and on site traffic and public H&S management
- Excavation management
- Temporary work management
- Scaffolding management
- Electrical management
- Delivery, off- loading, stacking, storage and housekeeping management
- · Hazardous chemical substance management
- Construction plant and machinery
- Hired plant and machinery
- Lifting and rigging management
- Concrete works and batching
- Explosive actuating devices

- Occupational hygiene, Occupational Health and fitness for work management
- Employee facilities management
- Internal audit management
- Dust control management
- Waste management
- Radiation control
- Equipment installation
- Confined space entry

#### ANNEXURE C. CONTENTS AND NUMBERING OF THE H&S FILE

- 1. Index of the H&S File
- 2. Work Permit
- 3. H&s Plan and other applicable management plans
- 4. Risk assessments,, Registers and DSTI Records
- 5. Risk monitoring and Review records
- 6. Start up and Organisation charting
- Updated Project and OHS Organogram
- Signed letters of the appointed competent persons and evidence of competency (registrations, qualifications and other proof of competency)
- Employee list
- Contractor list
- Medical certificates of fitness
  - 7. Training and competency Matrix and training records
    - H&S Induction records (including HIRA Training)
    - Training and competency records for method statements, operating procedures and safe work instruction
    - Visitor induction records
  - 8. Monthly statistics
  - 9. Incident register & investigation reports & COIDA Accident and incident management
  - 10. H&S inspection and Maintenance Registers
  - 11. PPE issue Register
  - 12. Internal audits
  - 13. Letters of approval of contractors and sub-contractors H&S Plans

- 14. Letters of appointments of Contractors and sub-contractors 15. Signed Section 37(2) agreements
  - Agreement between Client and Principal Contractor
  - Agreement between the Principal Contractor and each contractor or subcontractor
- 16. Audits by Client
- 17. Corrective / preventative action plans for Client audits
- 18. Occupational hygiene records and reference
- 19. Material Safety Data Sheets
- 20. Updated COIDA Letter of Good Standing of Principal Contractor
- 21. Updated Notification and proof of delivery (if applicable)
- 22. Waste manifest
- 23. D.O.L AUDITS
- 24. H&S management system of principal contractor (if referred in the H&S Plan)
  ANNEXURE D CLOSE OUT REPORT FORMAT REQUIREMENT

The H&S files of the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive.

The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident.

All records to be in electronic format and submitted to the OHS Agent for approval in adequately formatted list and folders. Layout should be logical and in the same order as in the site files.

Health and Safety Close-Out file requirements include:

- 1. Client H&S Specification
- 2. Principal Contractors OHS Plan
- 3. Organogram
- 4. Legal Appointments
- 5. Notification to Dept. of Labour of Construction work
- 6. Letter of Good Standing for the Project
- 7. Full files for all Contractors as well as close-out reports
- List of Contractors
- Letters of Approval of Contractors
- · Mandatory Agreement

- Letters of Good Standing
- Appointments
- 8. Incident Records
- 9. Non Conformance records
- 10. Agents Audits
- 11. Method Statements
- 12. Risk Assessments
- 13. Safe Work Procedures
- 14. Medical Surveillance Certificates

# ANNEXURE E CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT REQUIREMENTS

To be submitted by the end of the first week of each month

Contract Number	Project Name	Contract Details
1. General activities for the month		
Detail each work activity		
2. Number of workers		
Permanent, local contractors		
3. Training done Type, number of people		

4. Incidents / Accidents List number, detail attach reports	
<b>r</b>	
5. Non-Conformances	
Closed out or active	
6. Contractors	
Approval status, lists	
7. Audits completed	
Internal / External	
8. Critical issues	
9. General	

H& Officer	-Signature	-Date
H&SAgent	Signature	Date

# ANNEXURE F DEFECT AND LIABILITY PERIOD

The H&S Files are to be kept "live" for the defect liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S File by the OH&S Agent prior to any work commencing.

# ANNEXURE G PERMIT REQUIREMENT

To be completed by the Client (see attached)





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