

Head Office: 546 16th Road, Constantia Park, Midrand, 1685

PO Box 4077, Halfway House, Midrand 1685

Tel: +27 11 312 9765 Fax: +27 11 312 9768/ +27 86 219 8717

Eastern Cape: 62 Bonza Bay Road, Beacon Bay, East London, 5247

Tel: +27 43 721 0178 Fax: +27 86 558 7022

Mpumalanga: 40 Magagula Street, Middleburg, 1050

Tel: +27 13 246 0680

Email: info@kimopax.com

Website: www.kimopax.com

**CONSTRUCTION HEALTH AND SAFETY SPECIFICATIONS
FOR THE CONSTRUCTION OF TEMPORARY DECANTING
CLASSROOMS AT MAKAULA SSS FOR THE EASTERN CAPE
DEPARTMENT OF EDUCATION**

RFP277/2023

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Attention: Siyabulela Liwani

Liwani Consulting

Donald Square, 2nd Floor

6 Donald Road, Vincent

East London

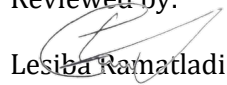
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Compiled by:



Charles Chigurah (SACNASP; IWMSA; SAIOSH)

Reviewed by:



Lesiba Ramatladi
Construction Health and Safety Officer (GCC)

Approved by:

Shaun P Norris

CHSA

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DEFINITIONS

“Purpose of the Act” –

To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

“Agent” –

means any person who acts as a representative for a client;

“Client” –

means any person for whom construction work is performed;

“Construction Work” is defined as any work in connection with –

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

“Contractor” –

means an employer, as defined in Section 1 of the Act, who performs construction work and includes Principal Contractors;

“Health and Safety File” –

means a file, or other record in permanent form, containing the information required a contemplated in the regulations;

“Health and Safety Plan” –

means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified;

“Health and Safety Specification” –

means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons;

“Method Statement” –

means a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment;

“Principal Contractor” –

means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site;

“Risk Assessment” –

means a program to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

1 PREAMBLE

In terms of Construction Regulation 5(1)(b) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), DBSA, as the implementing agent and/or its Agent on its behalf, shall be responsible of preparing Health & Safety Specifications for any intended construction project and provide any Principal Contractor appointed to perform construction work for the Client and/or its Agent on its behalf with the same.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognizance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall refer to the Client's Baseline Risk Assessment Program to identify and determine the scope and

details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan. The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

2 SCOPE OF HEALTH AND SAFETY SPECIFICATION DOCUMENT

The Health and Safety Specifications pertaining to the construction and refurbishment of Makaula SSS, cover the subjects contained in the index and is intended to outline the normal as well as any special requirements of DBSA pertaining to the health and safety matters (including the environment) applicable to the project in question. These Specifications should be read in conjunction with the Act, the Construction Regulations, 2014 and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

3 PURPOSE

DBSA is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications. The purpose of this specification document is to provide the relevant Principal Contractor (and his /her contractor) with any

information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for DBSA. The Principal Contractor (and his /her contractor) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) Submissions on health and safety matters required from the Principal Contractor (and his /her contractor); and
- d) The Principal Contractor's (and his /her contractor) health & safety plan.

To serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations promulgated on 7 February 2014 and incorporated into the above Act by Government Notice R 84 published in Government Gazette 37305 shall apply to any person involved in construction work pertaining to this project, as will the Act.

4 IMPLEMENTATION OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification forms an integral part of the Contract, and Contractors shall make it an integral part of their Contracts with Sub Contractors and Suppliers. Contractors

employed by the Client are to ensure that the provisions of the Health and Safety Specification are applied both on the site and in respect of all off site activities relating to the project, in particular in transport activities and project dedicated off site fabrication works. The Contractor shall enforce the provisions of the Health and Safety Specification amongst all sub-contractors and suppliers for the project. The successful Contractor will be required to compile a Health and Safety Plan based on the requirements of the Occupational Health Act 85 of 1993 and these Specifications, which will need to be approved by Client prior to commencement with construction work.

4.1 Client Duties (Section 5 of the Construction Regulations of 2014)

In terms of the Construction Regulations 2014 the Client (or their Agent, where appointed) has legal duties. Where an Agent (refer to “definitions” section of this document) is appointed in terms of this project, these Health and Safety duties assigned will also apply. All references to “Client” will apply to their appointed “Client Agent”, where so appointed, in this Health and Safety Specification.

The Client must:

- Prepare a baseline risk assessment for the construction work
- Prepare a suitable, sufficiently documented and coherent site specific Health and Safety specification for the intended construction work, based on the baseline risk assessment
- Include the health and safety specification in the tender documents
- Ensure that potential principal contractors submitting tenders have made adequate provision for the cost of health and safety measures

- Ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely
- Take reasonable steps to ensure co-operation between all contractors appointed by the client to enable each of those contractors to comply with the regulations
- Ensure, before work commences, that every principal contractor is registered and in good standing with the compensation fund, or with a licensed compensation insurer as contemplated in the Compensation for Occupational injuries and Diseases Act, 1993 (Act no 130 of 1993)
- Appoint each principal contractor in writing for the project, or part thereof
- Discuss and negotiate with the principal contractor the contents of the principal contractor's safety plan and thereafter finally approve that plan for implementation
- Ensure that a copy of the principal contractor's health and safety plan is implemented and maintained
- Ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days
- Ensure that a copy of the health and safety audit report is provided to the principal contractor within 7 days after the audit
- Stop any contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the principal contractor's health and safety plan for site

- Where changes are brought about to the design or construction work, make sufficient health and safety information and appropriate resources available to the principal contractor to execute the work safely
- Ensure that the health and safety file is kept and maintained by the principal contractor.
- Where the client requires additional work to be performed as a result of a design change or error in construction due to the actions of the client, the client must ensure that sufficient safety information and appropriate additional resources are available to execute the required work safely.
- Where more than one principal contractor is appointed, the client must take reasonable steps to ensure co-operation between all principal contractors and contractors to ensure compliance with the Regulations

4.2 Designer Duties (Regulation 6 of the Construction Regulations of 2014)

It must be noted that the Designer also has Health and Safety duties assigned in terms of the Construction Regulations. Where the contractor fulfils a design function in terms of this project (refer to “definitions” section of this document), these duties will also apply. Please refer to Regulation 6 of the Construction Regulations 2014.

Please note that the designer of temporary works must ensure that:

- All temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
- The designs of temporary works are done with close reference to the structural design drawings issued by the contractor, and in the event of any uncertainty consult the contractor;

- All drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
- The loads caused by the temporary works and any imposed loads are clearly indicated in the design.

5 PROJECT DIRECTORY

Project Development Bank of Southern Africa (DBSA)	Client: Headway Hill 1258 Lever Road Midrand South Africa	Tel: +27 11 313 3500 or +27 11 313 3297
Construction Safety Manager: Kimopax Pty Ltd Contact Person: Lesiba Ramatladi	Address: 62 Bonza Bay, Beacon Bay, East London, 5247	Cell: 083 704 0572 Tel: 043 721 0178 Email: Lesiba@kimopax.com
Main Contractor: Contact Person: TBA	Address: TBA	Tel: Cell: Fax: Email:
Project Manager: Liwani Consulting Contact Person: Siyabulela	Address: Liwani Consulting Donald Square, 2nd Floor 6 Donald Road, Vincent,	Tel: 043 001 1918 Cell: 078 662 6830

Liwani	East London 5247	Fax: 011 318 2851 Email: siyabulela@liwaniconsulting.co.za
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6 PROJECT DETAILS

6.1 SCOPE OF CONSTRUCTION WORK

The scope of work will include the followings amongst others:

Supply and Erection of 43 New Classroom Prefabricated Structure and support infrastructure

Electrical Connection

Water Connection

High Security Fencing

External Works

6.2 Construction Duration

Provisional Start Date	To Be Confirmed (TBC)
Provisional End Date	TBC
Anticipated Project Duration	10 months

7 EXISTING ENVIRONMENT

Hazards particular to this project by virtue of location:

- Members of public, school children and visitors may have interaction with construction.
- Members of public entering and walking unauthorised on site/servitude/access road.

- Employees and construction vehicle may have interaction with other contractors on site.
- Local domestic animals grazing near the site

8 PROJECT HEALTH AND SAFETY REQUIREMENTS

Significant health and safety hazards identified by Designer and Client Agent:

- Members of public and specifically school children.
- Fencing/demarcating work areas and lay down area for storage of material.
- Adequate barricading of excavations to be in place between works and members of public to prevent unauthorised access of site/material/equipment.
- As far as reasonable practical trench excavations to be back filled by end of day end.
- Only accredited persons to do electrical connections and commissioning. Accredited person to issue electrical COC.
- Security at site yard.
- After hours and over weekends.

Other construction hazards expected are as follows:

- Compacting and Filling
- Electric Tools and Electrical Installations
- Excavations
- Fire Flammable Liquids / Gas
- Hand tools Hazardous Substances

- Lifting Operations
- Manual Handling of General Items
- Members of Public Noise and Dust
- Overhead Services (Working near) Plant/Vehicle and Equipment Operations
- Working at Height
- Working/contact with Effluent

8.1 Activities Requiring Approved Method Statements (For Health And Safety)

All work activities with a high risk profile for example work at heights

8.2 Activities Requiring Permits (For Health And Safety Purposes)

- Permit to Dig: Yes
- Permit to Enter Excavations: Only for excavations of 1,5 meters and deeper.
- Permit to Work with Electricity: Yes
- Hot Works Permit: Yes (if required)
- Permit to Work under Power Lines: Yes
- Blasting: Yes (If required)
- Temporary Works: Yes form work

It is the duty of the principal contractor to ensure that adequate training is done to acquire the permits above. The Construction Health and Safety Agent will be available to offer assistance as and when required

8.3 Contractor Safety Officer Provision

Records of safety audits undertaken by the Contractor's Safety Officer must be kept on site in the safety file and non-conformances reported by the Safety Officer to the Contractor's management team. All non-conformances identified by the Safety Officer must be investigated and corrective action taken by the Contractor to prevent re-occurrence.

8.4 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner.

8.5 Management and Supervision of Construction Work

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.

8.6 Traffic Management and Traffic Safety Officer Provision


Not necessary because the site is located in the rural areas along a gravel road which is not busy. However construction activities is anticipated not to have any negative effect on the movement of vehicles on the gravel road.

8.7 Environmental Conditions

Contractor must take into account adverse weather conditions on site activities and implement control measures to mitigate risk. This includes risk of exposure to excessive heat, cold, rain and wind. The open nature of the site works will not preclude any of the above.

8.8 Arrangements for Site Camp, Ablutions And Yard

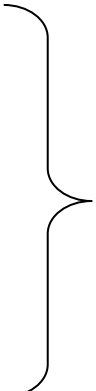
Site camp location and set up

- Restrictions / requirements:
 - Storage areas:
 - Security:
- 
- Contractor to advise in consultations with the
Engineer and Professional Team

Ablutions and Welfare Arrangements

Contractor to supply ablutions and facilities in line with the Construction Regulations 2014.

Please note that toilets should be provided with built in facilities for hand washing.

- Toilets:
 - Washing facilities:
 - Drinking Water:
 - Shelter:
- 
- Contractor to provide as per Regulations

8.9 Protection of Site Against Unauthorised Access By Public

Excavation: Note that excavations accessible to public, or adjacent to public roads / thoroughfares, must have (a) barrier / fence of at least 1m in height, and (b) warning illuminants at night or when visibility is poor, or have other suitable precautionary measures if both these are not practicable.

General Fencing of Site/yard: Note that construction sites in built up areas adjacent to public way must be fenced off and have controlled access points. No entry signs must be put in place on 1,8 meter fencing to ensure no unauthorised entry to site yard/camp.

Manual Handling: With constant lifting and moving of material and some work being conducted with hands above head. Please ensure safe manual handling techniques are employed and that correct PPE is available and used.

Members of the public: Will be using the same access road as the construction vehicles and personnel. No entry signs must be put in place on 1.8 meter fencing to ensure no unauthorised entry to the work areas.

Warning Notices: “No Unauthorised Entry” safety signs and PPE requirements signs to be prominently displayed as well as usual construction warning signage.

8.10 Personal Protective Clothing

Subject	Requirement
PPE needs analysis	Need for PPE identified and prescribed in writing. PPE remain property of Employer, not to be removed from premises GSR 2(4)
Head Protection	All persons on site wearing Safety Helmets including Sub-contractors and Visitors (where prescribed)
Foot Protection	All employees on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work. Visitors to wear same upon request or where prescribed
Eye and Face	Eye and Face (also Hand and Body) Protection (Goggles, Face Shields, Welding

Protection	<p>Helmets etc.) used when operating the following:</p> <ul style="list-style-type: none"> • Jack/ Kango Hammers • Angle / Bench Grinders • Electric Drills (Overhead work into concrete / cement / bricks • Explosive Powered tools • Concrete Vibrators / Pokers • Hammers & Chisels • Cutting Tools and Equipment • Spray Painting Equipment etc.
Hearing Protection	<p>Hearing Protectors (Muffs, Plugs etc.) used when operating the following:</p> <ul style="list-style-type: none"> • Jack / Kango Hammers • Explosive Powered Tools • Wood/Aluminium Working Machines e.g. saws, planers, routers
Hand Protection	<p>Protective Gloves worn by employees handling / using:</p> <ul style="list-style-type: none"> • Cement / Bricks / Steel / Chemicals • Welding Equipment • Hammers & Chisels

	<ul style="list-style-type: none"> • Jack / Kango Hammers etc.
Respiratory Protection	<p>Suitable/efficient prescribed Respirators worn correctly by employees handling / using:</p> <ul style="list-style-type: none"> • Dry cement • Dusty areas • Hazardous chemicals • Spray Painting etc.
Fall Prevention Equipment	<p>Suitable Safety Belts / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.:</p> <ul style="list-style-type: none"> • Scaffolding • Edge work
Protective Clothing	<p>All jobs requiring protective clothing (Overalls, Rain Wear, Welding Aprons etc.) Identified and clothing worn.</p>
PPE Issue & Control	<ul style="list-style-type: none"> • Identified Equipment issued free of charge. • All PPE maintained in good condition. (Regular checks). • Workers instructed in the proper use & maintenance of PPE. • Commitment obtained from wearer accepting conditions and to wear the PPE. • Record of PPE issued kept on H&S File.

	<ul style="list-style-type: none"> PPE remain property of Employer, not to be removed from premises GSR 2(4)
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8.11 Education And Training

Subject	Requirement
Company OH&S Policy Section 7(1)	<ul style="list-style-type: none"> Policy signed by CEO and published/Circulated to Employees Policy displayed on Employee Notice Boards Management and employees committed.
Company/Site OH&S Rules (Section 13(a))	<ul style="list-style-type: none"> Rules published Rules displayed on Employee Notice Boards Rules issued and employees effectively informed or trained: written proof Follow-up to ensure employees understand/adhere to the policy and rules.
Induction & Task Safety Training (Section 13(a))	<ul style="list-style-type: none"> All new employees receive OH&S Induction Training. Training includes Task Safety Instructions. Employees acknowledge receipt of training. Follow-up to ensure employees understand/adhere to instructions.
General OH&S Training	<ul style="list-style-type: none"> All current employees receive specified OH&S training: written proof Operators of Plant & Equipment receive specified training

(Section 13(a)	<ul style="list-style-type: none"> Follow-up to ensure employees understand/adhere to instructions.
Occupational Health & Safety Promotion	<p>Incident Experience Board indicating e.g.</p> <ul style="list-style-type: none"> No. of hours worked without an Injury No. of days worked without an Injury Mission, Vision and Goal Safety Posters displayed & changed regularly Employee Notice Board for OH&S Notices.

8.12 Public Safety, Security Measures & Emergency Preparedness

Subject	Requirement
Notices & Signs	<p>Notices & Signs at entrances / along perimeters indicating</p> <p>“No Unauthorised Entry”.</p> <p>Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”</p> <p>Notices & Signs posted to warn of overhead work and other hazardous activities. e.g. General Warning Signs</p>
Site	Nets, Platforms, etc. to protect members of the public passing / entering the site.

Safeguarding	
Security Measures	Access control measures/register in operation
	Security patrols after hours during weekends and holidays
	Sufficient lighting after dark
	Guard has access to telephone/ mobile/other means of emergency communication
Emergency Preparedness	Emergency contact numbers displayed and made available to Security & Guard
	Emergency Evacuation instructions posted up on all notice boards (including employees' notice boards)
	Emergency contingency plan available on site/in yard
	Emergency alarm audible all over (including in toilets)
Emergency Drill & Evacuation	Adequate No. of employees trained to use Fire Fighting Equipment.
	Emergency Evacuation Plan available displayed and practiced.

8.13 Housekeeping

Subject	Requirement
Scrap Removal System	<ul style="list-style-type: none"> All items of Scrap/Unusable Off-cuts/Rubble and redundant material removed from working areas on a regular basis. (Daily)

	<ul style="list-style-type: none"> • Nothing thrown/swept over sides. • Scrap disposed of in designated containers/areas • Removal from site/yard on a regular basis.
Stacking & Storage	<p>Stacking:</p> <ul style="list-style-type: none"> • Stable, on firm level surface/base. • Prevent leaning/collapsing • Irregular shapes bonded • Not exceeding 3x the base • Stacks accessible • Removal from top only. <p><u>Storage:</u></p> <ul style="list-style-type: none"> • Adequate storage areas provided. • Functional – e.g. demarcated storage areas/racks/bins etc. • Special areas identified and demarcated e.g. flammable gas, cement etc. • Neat, safe, stable and square. • Store/storage areas clear of superfluous material. • Storage behind sheds etc. neat/under control.

	<ul style="list-style-type: none"> Storage areas free from weeds, litter etc.
Waste Control/Reclamation	<ul style="list-style-type: none"> Re-usable off-cuts and other re-usable material removed daily and kept to a minimum in the work areas. All re-usable materials neatly stacked/stored in designated areas. (Nails removed/bent over in re-usable timber). Issue of hardware/nails/screws/cartridges etc. controlled and return of unused items monitored.
Sub-contractors (Housekeeping)	Sub-contractors required to comply with Housekeeping requirements.

8.14 Working at Heights

Subject	Requirement
Openings	Unprotected openings adequately guarded/fenced/barricaded/catch nets installed
	<ul style="list-style-type: none"> Roof work discontinued when bad/hazardous weather Fall protection measures (including warning notices) when working close to edges or on fragile roofing material Covers over openings in roof of robust construction/secured against displacement

8.15 Scaffolding / Formwork / Support Work

Subject	Requirement
Access/System Scaffolding	<ul style="list-style-type: none"> • Foundation firm / stable • Sufficient bracing. • Tied to Structure/prevented from side or cross movement • Platform boards in good condition/sufficient/secured. • Handrails and toe boards provided. • Access ladders / stairs provided. • Area/s under scaffolding tidy. • Safe/unsafe for use signs • Complying with OH&S Act/SABS 085
Free Standing Scaffolding	<ul style="list-style-type: none"> • Foundation firm / stable • Sufficient bracing. • Platform boards in good condition/sufficient/secured. • Handrails and toe boards provided. • Access ladders / stairs provided. • Area/s under scaffolding tidy. • Safe/unsafe for use signs

	<ul style="list-style-type: none"> • Height to base ratio correct • Outriggers used /tied to structure where necessary • Complying with OH&S Act/SABS 085
Mobile Scaffolding	<ul style="list-style-type: none"> • Foundation firm / stable • Sufficient bracing. • Platform boards in good condition/sufficient/secured. • Handrails and toe boards provided. • Access ladders / stairs provided. • Area/s under scaffolding tidy. • Safe/unsafe for use signs
Mobile Scaffolding	<ul style="list-style-type: none"> • Wheels / swivels in good condition • Brakes working and applied. • Height to base ratio correct. • Outriggers used where necessary • Complying with OH&S Act/SABS 085
Suspended Scaffolding	<ul style="list-style-type: none"> • Outriggers securely supported and anchored. • Correct No. of steel wire ropes used.

	<ul style="list-style-type: none"> • Platform as close as possible to the structure. • Handrails on all sides • All winches / ropes / cables / brakes inspected regularly and replaced as prescribed • Scaffolding complies with OHS Act (Act 85/93) • Winch(es) maintained by competent person(s)
Formwork / Support Work	<ul style="list-style-type: none"> • All components in good condition. • Foundation firm / stable. • Adequate bracing / stability ensured. • Good workmanship / uprights straight and plumb. • Good cantilever construction. • Safe access provided. • Areas under support work tidy. • Same standards as for system scaffolding.
Edges & Openings	<ul style="list-style-type: none"> • Edges barricaded to acceptable standards. • Manhole openings covered / barricaded. • Openings in floor / other openings covered, barricaded/fenced.

8.16 Ladders

Subject	Requirement
Physical Condition / Use & Storage	<ul style="list-style-type: none">• Stepladders - hinges/stays/braces/stiles in order.• Extension ladders - ropes/rungs/stiles/safety latch/hook in order.• Extension / Straight ladders secured or tied at the bottom / top.• No joined ladders used• Wooden ladders are never painted except with varnish• Aluminium ladders NOT to be used with electrical work• All ladders stored on hooks / racks and not on ground.• Ladders protrude 900 mm above landings / platforms / roof.• Fixed ladders higher than 5 m have cages/Fall arrest system

8.17 Emergency and Fire Prevention and Protection

Subject	Requirement
Fire Extinguishing Equipment	Fire Risks Identified and on record The correct and adequate Fire Extinguishing Equipment available for:

	<ul style="list-style-type: none"> • Offices • Flammable Store • Gas Welding / Cutting operations • Where flammable substances are being used / applied. • Equipment Easily Accessible
Maintenance	Fire equipment checked minimum monthly, serviced yearly
Location & Signs	<p>Fire Extinguishing Equipment:</p> <ul style="list-style-type: none"> • Clearly visible • Unobstructed • Signs posted including “No Smoking” / “No Naked Lights” where required. (Flammable store, Gas store, Fuel tanks etc.)
Storage Issue & Control of Flammables (incl. Gas cylinders)	<ul style="list-style-type: none"> • Storage Area provided for flammables with suitable doors, ventilation, bund etc. • Flammable store neat / tidy and no Class A combustibles. Decanting of flammable substances carried out in ignition free and adequately ventilated area. Container bonding principles applied • Only sufficient quantities issued for one task or one day’s usage • Separate, special gas cylinder store/storage area. • Gas Cylinders stored / used / transported upright and secured in

	<p>trolley/cradle/structure and ventilated.</p> <ul style="list-style-type: none"> • Types of Gas Cylinders clearly identified as well as the storage area and stored separately. • Full cylinders stored separately from empty cylinders.
Storage, Issue & Control of Hazardous Chemical Substances (HCS)	<ul style="list-style-type: none"> • HCS storage principles applied: products segregated • Only approved, non-expired HCS to be used • Only the prescribed PPE shall be used as the minimum protection • Provision made for leakage/spillage containment and ventilation • HCS under lock & key controlled by designated person • Decanted/issued in containers as prescribed with information/warning labels • Disposal of unwanted HCS by accredited disposal agent • No dumping or disposal of any HCS on or inside the storage area or anywhere else on the project site • All vessels or containers to be regularly checked for leaks

8.18 Excavations

Subject	Requirement
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Excavations deeper than 1.5 m.	<ul style="list-style-type: none"> • Shored / Braced to prevent caving / falling in. • Provided with an access ladder. • Excavations guarded/barricaded/lighted after dark in public areas • Soil dumped at least 1 m away from edge of excavation • On sloping ground soil dumped on lower side of excavation • All excavations are subject to daily inspections
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8.19 Tools

Subject	Requirement
Hand Tools	<p>Shovels / Spades / Picks:</p> <ul style="list-style-type: none"> • Handles free from cracks and splinters • Handles fit securely • Working end sharp and true <p>Hammers:</p> <ul style="list-style-type: none"> • Good quality handles, no pipe or reinforcing steel handles. • Handles free from cracks and splinters • Handles fit securely <p>Chisels:</p>

	<ul style="list-style-type: none"> • No mushroomed heads / heads chamfered • Not hardened • Cutting edge sharp and square <p>Saws:</p> <ul style="list-style-type: none"> • Teeth sharp and set correctly • Correct saw used for the job
Explosive Powered Tools.	<ul style="list-style-type: none"> • Only used by trained / authorised personnel. • Prescribed warning signs placed / displayed where tool is in use. • Work area must be properly isolated/demarcated during use of tool. • Inspected at least monthly by competent person and results recorded. • Issue and return recorded including cartridges / nails and unused cartridges / nails / empty shells recorded. • Cleaned daily after use.

8.20 Cranes

Subject	Requirement
Mobile Crane	<ul style="list-style-type: none"> • Only operated by trained authorised operator with valid certificate of training

		<ul style="list-style-type: none"> • Rear view mirrors • Windscreen visibility good • Windscreen wipers operating effectively • Indicators operational • Hooter working • Tyres safe/sufficient tread/pressure visibly sufficient • No missing Wheel nuts • Headlights, taillights operational • Reverse alarm working and audible and known by all employees
Mobile continued	Crane	<ul style="list-style-type: none"> • Grease nipples and grease on all joints • No Oil leaks • Hydraulic pipes visibly sound/no leaks • No corrosion on Battery terminals • Boom visibly in good condition/no apparent damage • Cable/sheaves greased/no visible damage/split wires/corrosion and checked daily • Brakes working properly • Crane hook: Throat pop marked/safety latch fitted/functional

	<ul style="list-style-type: none"> • SWL/MML displayed • By-pass valves operational • Deflection chart displayed/visible to operator/driver • Outriggers functional used
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8.21 Transport & Materials Handling Equipment

Subject	Requirement
Site Vehicles	<ul style="list-style-type: none"> • All Site Vehicles, Dumpers, Bobcats, Loaders etc; checked daily before use by driver / operator. • Inventory of vehicles used/operated on site • Inspection by means of a checklist / results recorded. • No persons riding on equipment not designed or designated for passengers. • Site speed limit posted, enforced and not exceeded. • Drivers / Operators trained / licensed and carrying proof. • No unauthorised persons allowed to drive / operate equipment.

8.22 Site Plant and Machinery

8.22.1.1 Subject	8.22.1.2 Requirement
Brick Cutting Machine	<ul style="list-style-type: none"> • Operator Trained. • Only authorised persons use the machine. • Emergency stop switch clearly marked and accessible. • Area around the machine dry and slip/trip free/clear of off-cuts • All moving drive parts guarded/electrical supply cable protected • Operator using correct PPE - eye/face/hearing/foot/hands/body.
Electric Arc Welder	<ul style="list-style-type: none"> • Welder Trained. • Only authorised / trained persons use welder. • Earth cable adequately earthed to work. • Electrode holder in good condition/safe • Cables, clamps & lugs/connectors in good condition. • Area in which welding machine is used is dry/protected from wet. • Welder using correct PPE - eye/ face/foot/body/respirator. • Correct transparent screens & warning signs placed
Woodworking Machines	<ul style="list-style-type: none"> • Operators Trained. • Only authorised persons use machines.

	<ul style="list-style-type: none"> • Provided with guards. • Guards used. • Operators using correct PPE - eye/face/feet/hearing • Circular saws strictly operated according to prescribed methods and settings • Only prescribed saw blades (cross-cut, ripping blade, smooth cut, aluminium) shall be used for various applications
Compressors	<ul style="list-style-type: none"> • Relief valves correctly set and locked / sealed. • Maximum Safe Working Pressure (MSWP) indicated on face of pressure gauge: not on glass cover. • All drives adequately guarded. • Receiver/lines drained daily • Hoses good condition/clamped, not wired • Compressed air NEITHER used to dust off clothing/PPE/ and work areas NOR on bare skin
Concrete Mixer / Batch Plant	<ul style="list-style-type: none"> • Top platform provided with guardrails. • Dust abatement methods in use. • Operators using correct PPE - eye / hands / respirators. • All moving drive parts guarded.

	<ul style="list-style-type: none"> • Emergency stops identified / indicated and accessible. • Area kept clean/dry/and free from tripping and slipping hazards. • Operators overseer identified and crane signals displayed and used.
Gas Welding / Flame Cutting Equipment	<ul style="list-style-type: none"> • Only authorised/trained persons use the equipment. • Torches and gauges in good condition. • Flashback arrestors fitted at cylinders and gauges. • Hoses in good condition/correct type/all connections with clamps • Cylinders stored, used and transported in upright position, secured in trolley / cradle / to structure. • All cylinders regularly checked for leaks, leaking cylinders returned immediately • Fire prevention/control methods applied/hot work permits

8.23 Plant & Storage Yards/Site Workshops Specifics

Subject	Requirements
Section 8(2)(1) General Machinery Regulation 2(1): Supervision of the Use &	<p>Person/s with specific knowledge and experience designated in writing to Supervise the Use & Maintenance of Machinery</p> <p>Critical items of Machinery identified/numbered/placed on register/inventory</p>

Maintenance of Machinery	<p>Inspection/maintenance schedules for abovementioned</p> <p>Inspections/maintenance carried out to above schedules</p> <p>Results recorded</p>
General Machinery Regulation 9(2): Notices of Operation of Machinery	Schedule D Notice posted in Work areas
Vessels under Pressure Regulation 13(1)(b): Supervision of the Use & Maintenance of Vessels under Pressure (VuP)	<p>Person/s with specific knowledge and experience designated in writing to Supervise the Use & Maintenance of VuP's</p> <p>VuP's identified/numbered/placed on register/Manufacturers plate intact</p> <p>Inspection/maintenance schedules for abovementioned</p> <p>Inspections/maintenance carried out to above schedules</p> <p>Results recorded/Test certificates available</p>

8.24 Workplace Environment, Health and Hygiene

8.24.1.1 Subject	8.24.1.2 Requirement
Ventilation	<ul style="list-style-type: none"> Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.
Noise	<ul style="list-style-type: none"> Tasks identified where noise levels exceeds 85 dB at any one time.

	<ul style="list-style-type: none"> • All reasonable steps taken to reduce noise levels at the source. • Hearing protection used where noise levels could not be reduced to below 85 dB.
Heat Stress	<ul style="list-style-type: none"> • Measures in place to prevent heat exhaustion in heat stress problem areas. (See Environmental Regulation 4) • Cold drinking water readily available at all times.
Ablutions	<ul style="list-style-type: none"> • Sufficient hygiene facilities provided - 1 toilet per 30 employees (National Building Regulations prescribe chemical toilets for Construction sites) • Toilet paper available. • Facilities for washing hands provided • Soap/cleaning agent available for washing hands • Means of drying hands available • Lock-up changing facilities / area provided. • Ablution facilities kept hygienic and clean.
Eating / Cooking Facilities	<ul style="list-style-type: none"> • Adequate storage facilities provided. • Weather protected eating area provided, separate from changing area • Refuse bins with lids provided.

	<ul style="list-style-type: none"> Facilities kept clean and hygienic.
Pollution of Environment	<ul style="list-style-type: none"> Measures in place to minimize dust generation. Accumulation or littering of empty cement pockets, plastic wrapping / bags, packing materials etc. prevented. Spillage / discarding of oil, chemicals and diesel into storm water and other drains or into existing or newly dug holes/cavities on site expressly prohibited.
Hazardous Chemical Substances	<ul style="list-style-type: none"> All substances identified and list available e.g. acids, flammables, poisons etc. Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available. Substances stored safely. Expiry dates meticulously checked where applicable

9 FURTHER REQUIREMENTS

9.1 Duties of Principal Contractor / Contractor in terms of Construction Regulations

2014

A Principal Contractor must:

- Provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications, which plan must be applied from the date of commencement of and for the

duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;

- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the client, the client's agent or a contractor; and
- On appointing any other contractor, in order to ensure compliance with the provisions of the Act:
 - ✓ Provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;
 - ✓ Ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - ✓ Ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
 - ✓ Ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the compensation for occupational injuries and diseases act, 1993;
 - ✓ Appoint each contractor in writing for the part of the project on the construction site
 - ✓ take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;

- ✓ Ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
- ✓ Stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
- Where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely;
- Discuss and negotiate with the contractor the contents of their health and safety plan and finally approve that plan for implementation;
- Ensure that a copy of both the principal contractor and contractor's health and safety plan is available on request to an employee, an inspector, a contractor, the client or the client's agent;
- Hand over a consolidated health and safety file to the client upon completion of the construction work, to include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- In addition to the documentation required in the health and safety file include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done;
- Ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner

A contractor must prior to performing any construction work-

- Provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the client's health and safety specification and provided by the principal contractor, which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the act and these regulations, and which must be made available on request to an inspector, the client, the client's agent or the principal contractor;
- Before appointing another contractor to perform construction work be reasonably satisfied that the contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- Co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the act;
- As far as is reasonably practicable, promptly provide the principal contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where a contractor appoints another contractor to perform construction work, the duties that apply to the principal contractor will apply to the contractor as if he or she were the principal contractor. A principal contractor must take reasonable steps to ensure co-operation between all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations. No contractor may allow or permit any employee or person to

enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry. A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment. A contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor. A contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner.

9.2 Management and Supervision of Construction Work

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor. A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation. Where the construction manager has not appointed assistant construction managers, or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed. No construction manager appointed in terms of the Regulations may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed. A

contractor must, after consultation with the client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive. No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor. A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site. A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor, and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties. Where the contractor has not appointed such an employee, or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector. No construction supervisor appointed may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

9.3 Application for Construction Work Permit to Commence with Construction Work

The Contractor shall apply for Construction Work at least 30 days to the Provincial Director of the Department of Labour in writing for the construction of work permit to perform construction work if the intended construction work will -

- exceed 180 days
- will involve more than 1800 person days of construction work; or
- Include the demolition of a structure, or
- the works contract is of a value equal to or exceeding thirteen million rand or Construction Industry Development Board (CIDB) grading level 6.

The provincial director must issue a construction work permit in writing to perform construction work within 30 days of receiving the construction work permit application and must assign a site specific number for the construction site.

The copy of construction work permit must be kept in the occupational health and safety file for inspection by an inspector ,client client agent, or an employee.

9.4 Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site

The Contractor shall submit management and supervisory appointments as well as any relevant appointments in writing (as stipulated by the Construction Regulations 2014 and the Occupational Safety and Health Act 1993), prior to commencement of work

9.5 Competency for Contractor's Responsible Persons

The Contractor's responsible persons shall be competent in health and safety and be familiar with the Occupational Health and Safety Act 1993, and applicable regulations. Valid proof of

pertinent health and safety courses attended by such persons will be required to be presented to the Client.

9.6 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The successful Contractor shall submit to the Client a valid letter of good standing with the Compensation Insurer prior to appointment

9.7 Occupational Health and Safety Policy

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the company operations

9.8 Health and Safety Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated, when there is a change in the site team.

9.9 Risk Assessments

9.9.1 Baseline Risk Assessment

The Client shall cause a baseline risk assessment to be conducted by a competent person before the design process and tender process commence, and the assessed risks shall form part of the health and safety specifications. The Contractor must, before commencement of any construction work, and during construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site and must include:

- The identification of the risks and hazards to which persons may be exposed to;
- An analysis and evaluation of the risks and hazards identified; based on a documented method
- A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- A monitoring plan; and
- A review plan

The Contractor must ensure that, as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in a risk assessment. The Contractor must ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and/or control measures before any work commences and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site. The Principal Contractor must ensure that all contractors are informed regarding any hazard that is stipulated in the risk assessment before any work commences and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site. The Contractor must consult with the health and safety committee or with a representative trade union or representative group of employees if no health and safety committee exists, on the monitoring and review of the risk assessments for the site. The Contractor must ensure that copies of risk assessment for this site are available on site for inspection purposes by interested parties (inspector, the client, client's agent, any contractor, any employee, a representative trade union, a health and safety representative or safety committee member. A Contractor must review the relevant risk assessment where

changes are effected to the design and/or construction that result in a change to the risk profile, or when an incident has occurred.

In general the Contractor must ensure that the Risk Assessment involves identifying the hazards present in a work activity on site. This is followed by an evaluation of the extent of the risk involved taking into account those precautions already being taken.

The following general principle should be followed when conducting a risk assessment:

- All relevant risks and/or hazards should be systematically addressed;
- The risk assessment should address what actually happens in the workplace during the work activity;
- All employees and those who may be affected must be considered, including maintenance staff, security guards, visitors and subcontractors;
- The risk assessment should highlight those groups and individuals who may be required to work alone or who have disabilities;
- The risk assessment process should take into account the existing safety measures and controls.
- The level of detail on a risk assessment should be appropriate to the level of risk.

9.10 Health and Safety Representative(s)

The Contractor shall ensure that Health and Safety Representative(s) is/are elected and trained to carry out his / her functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report to the supervisor to take appropriate action. He / she shall attend Health and Safety Committee Meetings. The

Health and Safety Representative shall be part of the team that will investigate incidents, accidents and non-conformances.

9.11 Health and Safety Committee

Where two or more health and safety representatives have been appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

9.12 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner.

9.13 Health and Safety Training

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records. Once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

9.14 Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment (PPE). A copy of attendance registers of all employees who attend inductions shall be kept.

9.15 Awareness

The Contractor shall conduct periodic toolbox talks on site, preferably weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health and safety file as evidence of training.

9.16 Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons on appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence.

9.17 General Record Keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training etc. are kept on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

9.18 General Inspection, Monitoring and Reporting

The Contractor shall carry out inspections as required by this Health and Safety Specification, as well as by health and safety legislation.

9.19 Emergency Procedures

The Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following:

- List of key personnel;

- Details of emergency services;
- Actions or steps to be taken in the event of the emergency; and
- Information on hazardous materials / situations, including each material's hazardous potential impact or risk on the environment or human and measures to be taken in the event of an accident.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, dangers as a result of riot / service deliver protests / intimidation, etc. The Contractor shall advise the Client in writing of any on-site emergencies, together with a record of action taken, within 24 hours of the emergency occurring. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc) must be maintained and available to site personnel.

9.20 First Aid Box and First Aid Equipment

The Contractor shall provide first aid box/es and appoint, in writing, First Aider(s) for this project in line with the results of the Contractor's risk assessment for the project, this health and safety specification as well as the provisions of the General Safety Regulations. The appointed First Aider(s) are to be sent for accredited first aid training before starting on site. Valid certificates are to be kept on site. First Aid box/es must be adequately stocked at all time, accessible and be controlled by a qualified First Aider. If required by the Client, the Contractor shall have a stretcher on site to be used in case of a serious incident.

9.21 Accident / Incident Reporting and Investigation

The Contractor shall, in addition to the prescribed requirements of the Occupational Health and Safety Act and General Safety Regulations, investigate, record and report all Section 24 reportable incidents to the Client within 24 hours of the incident occurring. Incident

investigations shall be conducted by the Contractor's appointed Accident Investigator – this Investigator must be a competent person or persons who have sufficient knowledge to carry out an investigation. In the event of a fatality or a permanent disabling injury the Contractor must submit proof of reporting of incident to Department of Labour as well as proof of preventative measures to the Client. The Client reserves the right to conduct investigations into any incidents that they deem fit and the Contractor is required to provide full co-operation in this regard.

9.22 Hazards and Potential Situations

The Contractor shall immediately notify other Contractors of any hazardous or potentially hazardous situations, which may arise during performance of the activities.

9.23 Occupational Health and Safety Signage

The Contractor shall ascertain and provide adequate on site health and safety signage. This signage shall include, but shall not be limited to, Hard Hat / Helmet Area; Safety Shoes to be worn on site; Dust Masks to be worn in areas where there might be exposure to excessive dust; Ear Plugs / Muffs to be worn where there might be noise exposure over 85 db; Gloves; Safety Goggles; Safety Harness, Workers in Excavation, traffic management, etc. The Contractor shall be responsible to maintain the quality and replacement of signage.

9.24 Management Of Contractors by Principal Contractor

The Principal Contractor shall ensure that all contractors under his control are complying with the respective Health and Safety Plans, as well as Health and Safety Legislation.

9.25 Stacking of Materials

In addition to the provisions for the stacking of articles in the General Safety Regulations, 2003, the contractor must ensure that –

- A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- Adequate storage areas are provided;
- There are demarcated storage areas; and
- Storage areas are kept neat and under control

9.26 Housekeeping and General Safeguarding on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including-

- The proper storage of materials and equipment;
- The removal of scrap, waste and debris at appropriate intervals;
- Ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;
- Ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- Ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in the regulations;
- Ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons; and

- Ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects

9.27 Construction Vehicles and Mobile Plant

A contractor must ensure that all construction vehicles and mobile plant-

- Are of an acceptable design and construction;
- Are maintained in a good working order;
- Are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- Are operated by a person who-
 - ✓ Has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate those construction vehicles and mobile plant;
 - ✓ Has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner
- Have safe and suitable means of access and egress;
- Are properly organized and controlled in any work situation by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;

- Are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guard-rails and crash barriers;
- Are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- Are equipped with an acoustic warning device which can be activated by the operator;
- Are equipped with an automatic acoustic reversing alarm; and
- Are inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

A contractor must ensure that-

- No person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- Every construction site is organized in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- The traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;
- Every traffic route is, where necessary, indicated by suitable signs;
- All construction vehicles and mobile plant left unattended at night, adjacent to a public road in normal use or adjacent to construction areas where work is in progress, have

appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;

- All construction vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured;
- Whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- Tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees;
- Vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- All construction vehicles or mobile plant travelling, working or operating on public roads comply with the requirements of the national road traffic act, 1996.

9.28 Use and Temporary Storage of Flammable Liquids on Construction Sites

A contractor must, in addition to compliance with the provisions for the use and storage of flammable liquids in the General Safety Regulations, 2003, ensure that –

- Where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;

- No person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- Only the quantity of flammable liquid needed for work on one day is taken out of the store for use;
- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- Where flammable liquids are decanted, the metal containers are bonded and earthed; and
- No flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids

9.29 Fire precautions on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that –

- All appropriate measures are taken to avoid the risk of fire;
- Sufficient and suitable storage is provided for flammable liquids, solids and gases;
- Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;

- In confined spaces and other places in which flammable gases, vapours or dust can cause danger-
 - ✓ Only suitably protected electrical installations and equipment, including portable lights, are used;
 - ✓ There are no flames or similar means of ignition;
 - ✓ There are conspicuous notices prohibiting smoking;
 - ✓ Oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
 - ✓ Adequate ventilation is provided;
- Combustible materials do not accumulate on the construction site;
- Welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;
- Suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the fire chief or local authority concerned, and that such equipment is maintained in a good working order;
- The fire equipment contemplated above is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- A sufficient number of workers are trained in the use of fire- extinguishing equipment;
- Where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;

- The means of escape is kept clear at all times;
- There is an effective evacuation plan providing for all –
 - ✓ Persons to be evacuated speedily without panic;
 - ✓ Persons to be accounted for; and
 - ✓ plant and processes to be shut down; and

9.30 Construction Employees' Facilities

A contractor must, in terms of the Construction Regulations 2014, provide:

- ✓ Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons;
- ✓ At least one sanitary facility for each sex and for every 30 workers;
- ✓ Changing facilities for each sex;
- ✓ Sheltered eating area.

A contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

9.31 Fall protection

The Contractor must:

- Designate a competent person to be responsible for the preparation of a fall protection plan

- Ensure that the fall protection plan contemplated above is implemented, amended where and when necessary and maintained as required; and
- Take steps to ensure continued adherence to the fall protection plan.

A fall protection plan contemplated above must include-

- A risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- The processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- A programme for the training of employees working from a fall risk position and the records thereof;
- The procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- A rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A contractor must ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the fall protection plan. A contractor must ensure that all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings; Also that no person is required to work in a fall risk position, unless such work is performed safely as contemplated in above and fall prevention and fall arrest equipment are approved as suitable and of sufficient strength for the purpose for

which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and securely attached to a structure or plant, and the structure of plant and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and person who could fall, and fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

9.32 Temporary works

A contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use. A contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose. A contractor must ensure that-

- All temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they 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;
- All temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
- Detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other contractors, the client, the client's agent or any employee;
- All persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;

- all equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
- All temporary works structures are inspected by a competent person 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 and the results have been recorded in a register and made available on site;
- No person may cast concrete, until authorization in writing has been given by the competent person contemplated above;
- if, after erection, any temporary works structure is found to be damaged or weakened to such a degree that its integrity is affected, it is safely removed or reinforced immediately;
- Adequate precautionary measures are taken in order to-
 - ✓ Secure any deck panels against displacement; and
 - ✓ prevent any person from slipping on temporary works due to the application of release agents;
- As far as is reasonably practicable, the health of any person is not affected through the use of solvents or oils or any other similar substances;
- Upon casting concrete, the temporary works 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 competent person

- 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.
- Provision is made for safe access by means of secured ladders or staircases for all work to be carried out above the foundation bearing level;
- A temporary works drawing or any other relevant document includes construction sequences and methods statements;
- The temporary works designer has been issued with the latest revision of any relevant structural design drawing;
- A temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site; and
- The temporary works drawings are approved by the temporary works designer before the erection of any temporary works.

No contractor may use a temporary works design and drawing for any work other than its intended purpose.

9.33 Excavation

A contractor must-

- Ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
- Evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.

- ✓ The sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
- ✓ Such an excavation is in stable material: provided that-
 - Permission has been given in writing by the appointed competent person contemplated above upon evaluation by him or her of the site conditions; and
 - Where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations is decisive and such a decision must be noted in writing and signed by both the competent person and the professional engineer or technologist, as the case may be;
- Must take steps to ensure that the shoring or bracing contemplated above is designed and constructed in a manner that renders it strong enough to support the sides of the excavation in question;
- Must ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it may cause its collapse and consequently endangers the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- must ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, steps are taken to ensure the stability of such building, structure or road and the safety of persons;

- Must cause convenient and safe means of access to be provided to every excavation in which persons are required to work, and such access may not be further than six meters from the point where any worker within the excavation is working;
- Must ascertain, as far as is reasonably practicable, the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and must before the commencement of excavation work that may affect any such service, take the steps that are necessary to render the circumstances safe for all persons involved;
- Must ensure that every excavation, including all bracing and shoring, is inspected-
 - ✓ Daily, prior to the commencement of each shift;
 - ✓ after every blasting operation;
 - ✓ After an unexpected fall of ground;
 - ✓ After damage to supports; and
 - ✓ After rain,

By the competent person, in order to ensure the safety of the excavation and of persons, and those results must be recorded in a register kept on site and made available on request to an inspector, the client, the client's agent, any other contractor or any employee;

- Must cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be –

- ✓ Adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and
- ✓ Provided with warning illuminates' or any other clearly visible boundary indicators at night or when visibility is poor, or have resort to any other suitable and sufficient precautionary measure where this is not practicable;
- Must ensure that all precautionary measures stipulated for confined spaces as determined in the general safety regulations, 2003, are complied with by any person entering any excavation;
- Must, where the excavation work involves the use of explosives, appoint a competent person in the use of explosives for excavation, and must ensure that a method statement is developed by that person in accordance with the applicable explosives legislation; and
- Must cause warning signs to be positioned next to an excavation within which or where persons are working or carrying out inspections or tests.

APPENDIX 1: ASSIGNMENT OF CONTRACTOR'S RESPONSIBLE PERSONS

The contractor shall make the following appointments, but not limited to:

Chief Executive Officer (OSHACT 16(1))
Contract Director/Manager (OSHACT 16(2))
Construction Manager (CR 8(1))
Construction Supervisor (CR 8(7))
Construction Safety Officer (CR 8(5) Full time on site.
Safety Representative (where > 20 employees on site)
Construction risk assessor (CR 9(1))
Excavation Supervisor (CR13(1)(a))
Bulk Mixing Plant Supervisor (CR20(1))
Bulk Mixing Plant Operator (CR20(2))
Construction Vehicle and Mobile Plant Operator (CR23(1)(d)(i))
Controller of Temporary Electrical Installations (CR24(c))
Stacking Supervisor (CR28(a))
Fire Extinguishing Equipment Inspector (CR29(h))
Fall Protection Plan Developer (CR 10(1)(a))
Incident Investigator (OSHACT 9(2))

APPENDIX 2: SCHEDULE OF HAZARDS IDENTIFIED BY CLIENT AGENT AND DESIGNER

