



Specification:

HEALTH AND SAFETY/PROJECT
SPECIFICATION FOR THATHEZAKHE
SCHOOL

Specification N^o

CDC-SBU-SPC-032-25

Classification: Public

04 July 2025



DOCUMENT INFORMATION SHEET

Title of Document	:	Construction of the New Thathezakhe Special School
Type of Document	:	Project Health and Safety Specification
Document Number	:	CDC-SBU-SPC-032-25
Prepared by	:	Simon Sekgala
Typed by	:	Leon du Plooy
Business Unit	:	
Prepared for	:	CDC
Date of Issue	:	04-07-2025

Copyright

All rights reserved. No part of this document may be reproduced or distributed in any form or by any means, electronic, mechanical, photocopying or recording or otherwise, or stored in a database or retrieval system, without the prior written permission of the Coega Development Corporation (Pty) Ltd. ©

DOCUMENT CONTROL SHEET

The purpose of this form is to ensure that documents are reviewed and approved prior to issue. The form is to be bound into the front of all documents released by the Coega.

PROJECT NAME : Construction of the New Thathezakhe Special School

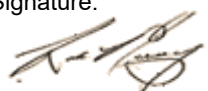
DOCUMENT TITLE : Project Health and Safety Specification.

DOCUMENT No. : CDC-SBU-SPC-032-25

PROJECT No. : SS - PN/DoE-KZN/23/00041

SIGNING OF THE ORIGINAL DOCUMENT

We, the undersigned, accept this document as a stable work product to be placed under formal change control as described by the Procedure for Control of Documented Information.

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 04-07-2025	Name: Leon du Plooy	Name:	Name: Simon Sekgala
	Signature: 	Signature:	Signature: 

Distribution:	Coega
----------------------	--------------

REVISION CHART

REVISION 1	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:

This document, and the information or advice which it contains, is provided by the Centre of Excellence Business Unit solely for the use by the Board of Directors of the Coega Development Corporation (Pty) Ltd and Coega and for reliance by its Executive Management and the Board in performance of that Business Unit's duties.

NAME OF SPECIFICATION

(THATHEZAKHE SPECIAL SCHOOL)

Table of Contents

1	Introduction and Background	6
2	Purpose of the Health And Safety (H&S) Specifications	7
3	Implementation of the Health and Safety Specification	8
4	Definitions:.....	8
5	Scope of Work	9
6	Health and Safety Management	10
6.1	HSE Interface Management/Working on CDC Life Environment.	10
7	Structure and Organization of Health And Safety Responsibilities	11
7.1	Overall Supervision and Responsibilities of Health and Safety.....	11
7.2	Communication, Participation & Consultation	11
8	Responsibilities	12
8.1	Client	12
8.2	Designers	13
8.3	Principal Contractors and Contractors	13
9	Health and Safety Compliance and Administration Requirements	14
9.1	Notification of Intention to Commence Construction Work and CWP Permit	15
9.2	COIDA & Health and Safety Incident/Accident Reporting and Investigations	15
9.3	Health and Safety Policies	16
9.4	Health and Safety Organogram	16
9.5	Hazard Identification and Risk Assessment	16
9.6	Health and Safety Representatives	17
9.7	Health and Safety Committees	17
9.8	Induction & Awareness	17
9.9	Site H&S Rules and Security	17
9.10	Competence	18
9.11	General Record Keeping	18
9.12	Health and Safety Audits, Monitoring and Reporting	18
10	Emergency Preparedness and Responses Procedures	18
10.1	Site Specific or Project Emergency Procedure	18
10.2	Emergency Team	19
10.3	Preparation of an Emergency Procedure	19
10.4	Unplanned Events	19
10.5	Documentation and Signage for the Emergency Procedure	20
10.6	First Aid Boxes, First Aid Equipment and Medical Examinations	21
10.7	Minimum Contents for First Aid Boxes.	21
10.8	Hazards and Potentially Hazardous Situations	22
11	Personal Protective Equipment (PPE) and Clothing	22
12	Health and Safety (OHS) Signage.....	23
13	Public and Site Visitor Health and Safety.....	24
14	Night Work (before and after hours)	24
15	Occupational Hygiene	24

16	Welfare Facilities.....	24
17	Alcohol and other Drugs	25
18	Contents of Health and Safety File	25
19	Procurement of Materials for Construction Work	26
20	Risk Assessment.....	27
21	Environmental Consideration.....	28
21.1	Site Specific Waste Management.....	28
21.2	Method of Control	30
21.3	Waste Management Principles	31
21.4	Classification of Waste.....	31
21.5	Cost of Construction Health and Safety Measures.....	32
22	Operational Considerations	37
22.1	Excavations.....	37
22.2	Temporary Works	38
22.3	Temporary use of Flammable Liquids	38
22.4	Portable Electric Tools	38
22.5	Structures.....	39
22.6	Machine Operators	39
22.7	Construction Vehicles and Mobile Plant	39
22.8	Housekeeping	40
22.9	Stacking and Storage.....	40
22.10	Use Ladders.....	41
22.11	Hazardous Chemical Agents (HCA)	41
22.12	Electrical Installations	41
22.13	Fire Precautions on Construction Sites	42
22.14	Scaffolding	42
22.15	Fall Protection Plan.....	44
22.16	Ramps.....	45
22.17	Working in Confined Spaces	45
22.18	Blasting (No Blasting Work).....	45
23	Penalty Clause	45

1 Introduction and Background

The introduction of the Construction Regulations 2014 as amended, requires that Clients prepares health and safety specifications for construction projects to ensure that the inclusive health and safety and protection of all stakeholders involved are considered and catered for. These specifications shall be read in conjunction with the Act (Occupational Health and Safety Act 85 of 1993) AND COVID-19 Lockdown Regulations, Hazousoduse Bilological Agent and NICD, guidelines, the Construction Regulations 2014, all applicable Regulations as well as all incorporated SANS (South African National Standards) codes in terms of Sect 44 of the Act.

In terms of Construction Regulation 5(1) (b) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), **CDC(KZNDoe), as the Client Appointed** Karo GMTA Sboninkululeko JV (**Marutleng**), and shall be responsible to prepare Health & Safety Specifications for any intended construction project and provide any Principal Contractor who is making a bid or appointed to perform construction work for CDC(**KZNDoe**) and/or its Agent.

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, cognisance 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 for conversion of , Thathezakhe Secondary School into a Technical High School with upgrades and additions.

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'.

It is required that the entire scope of the Labour legislation, including all project legal framework for Built Environment be complied with.

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.

The Occupational Health and Safety Act 85 of 1993 as amended provides for:

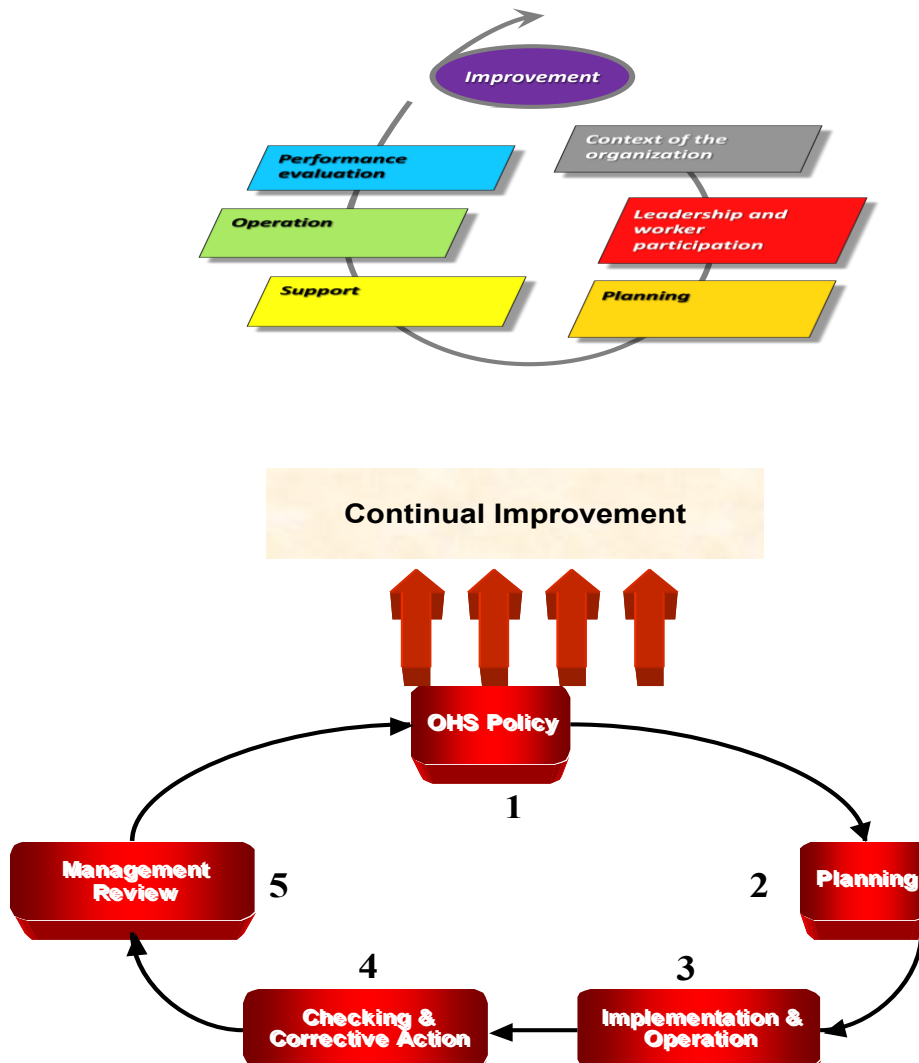
- Health and safety of persons at work;
- Health and safety of person in connection with the use of plant and machinery; and
- Protection of person other than person at work against hazards arising out for or in connection with activities at work.

Every effort has been made to ensure that this Site Specific Safety specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Safety Agent and/or CDC.

HSE Management and quality management system and principles will always follow the requirements of international standard ISO/SANS 9001, 14001 and 45001.

Construction safety management will therefore follow the Best practices for benchmarking purpose where quality will not be compromised. Refers to sketch below:

CDC(KZNE)OH&S Management System Model



2 Purpose of the Health And Safety (H&S) Specifications

The purpose of this Health and Safety specification is to provide the relevant Principal Contractor or bidding parties 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 and protection of Environment arising out of or in connection with the activities of persons at work during the carrying out of construction of High School Conversion. This specifications will set out specific requirements related to the intended activities relevant to the Upgrade project as per Designer Drawings and scope of work, Requirement and scope,.

Principal contractors and contractors are expected to align their risk control strategies and approach to managing risks on this project in line with this Health and Safety Specifications.

This Site Specific Health and Safety Specification is applicable only to or for a proposed High School Conversion.

3 Implementation of the Health and Safety Specification

This Health and Safety Specification forms an integral part of the Contract, and Principal Contractors are required to make it an integral part of their contracts with subcontractors and suppliers. The prospective Principal Contractors shall allow in their tenders the cost for complying with the requirements of the specification.

Acceptance by the Principal Contractor of the Contract with CDC shall constitute acknowledgement that the Principal Contractor has familiarised themselves with the content of the Health and Safety specification and that they will comply with all his obligations in respect thereof.

4 Definitions:

“AGENT”- means any persons who acts as a representative for a client, means a competent person who is appointed by the Directorate in terms of Regulation 5 (6) of the Construction Regulations.

“OHS” means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

“CR 2014” Construction Regulation 2014

“CLIENT”- means any person for whom construction work is being performed, CDC.

“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, demolishing 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 other similar type of work.
- e) Will include mechanical, civil, electrical services.

“CONTRACTOR”- means an employer who performs construction work.

“CONSTRUCTION SITE”- means a workplace where construction work is being performed. CDC (Thathesakhe High School).

“CONSTRUCTION WORK PERMIT”- means a document issued in terms of regulation 3 (Construction Regulation 2014)

“BCEA”, Basic Condition of Employment Act, 1997 (Act No. 75 of 1997);

“COVID-19 (C19 OHS), 2020” Covid-19 occupational health and safety measures in workplaces.

“COVID-19”, means Coronavirus Disease 2019;

“DISASTER MANAGEMENT ACT” means the Disaster Management Act, 2002 (Act No. 57 of 2002);

“HEALTH AND SAFETY FILE”- means a file, or other record containing the information in writing required by these Construction Regulations

“HEALTH AND SAFETY PLAN” mean a site, activity or project specific documented plan in accordance with the client's health and safety specifications

“HEALTH AND SAFETY SPECIFICATION”-means a document that includes information required under the construction regulation and obtained from the clients and designers during the early planning and design stage for a specific project on a specific site for use by the contractors when preparing their tenders or bids to clients

“PRINCIPAL CONTRACTOR” means an employer appointed by the client to perform construction work.

“The Act”-means the Occupational Health and Safety Act, 1993(Act No.85 of 1993)

“RISK ASSESSMENT”-means a process to determine any risk associated with any hazards at a construction site in order to identify the steps needed to be taken to treat, transfer, tolerate and terminate such risks.

5 Scope of Work

Construction of the New Nkosi Thathezekhe Special School in Nquthu, which is part of the Mzinyathi Education District. This is a new development that will cater for learners with special needs, such as the blind, deaf, mentally challenged, and others.

The scope of work will be as per the issued accommodation schedule and LSEN Hostel accommodation, as approved by client, please refers to the Technical Specification,

The scope of work shall include but is not limited to the following:

To upgrade, and add the existing facilities to meet the norms and standards of KZN DoE for a Thathezekhe Special school.

To provide accessible, inclusive, and adequate Special School built form that meets the approved Department of Education standards of a Special School for learners with special needs.

- a. 01x Administration Block
- b. 20x Standard Classrooms with Office / Store
- c. 03x Multipurpose Classrooms with Storerooms
- d. 01x Workshop with Storeroom
- e. 03x Offices outside Administration Block
- f. 03x Small Storerooms outside Admin. Block
- g. 01x Large Storerooms outside Admin. Block
- h. 01x Garden Stores and Changerooms
- i. 01x Guardhouse
- j. 01x Tuck shop
- k. 7x Girls Toilets
- l. 9x Boy's Toilets including Urinals.
- m. 6x Teachers Toilets
- n. Water supply
- o. Electrification
- p. Fencing
- q. Play Area with Jungle Gym
- r. Hardened Courtyard (in line with disabilities supported)

- s. Sport field
- t. 27x Parking Bay
- u. Boys Hostel: 100x Boys bed space, with 1x Tv Room, 1x Games Room, Reception/ duty Office, Male visitor's toilet, Female visitor's toilet, Disabled visitors toilet, Boys duty room cubicle, 4x Boys sickbay, Sickbays toilet (disabled), urinal, washbasin, shower and dispensary, 2x Boys Baths, 4x Boys Shower, 4x Boys Wc's, 8x Boys urinals, 6x Boys Washbasins, handwash laundry and Wash lines, Baggage store, Tuck store, Linen store, cleaning room, House Father's/Mothers 2 bedroom flat, Matrons 1bedroom flat, Duty Teachers bedsitter and Common Room with Kitchen.
- v. Girls Hostel: 100x Girls bed space with 1x Tv Room, 1x Games Room, Reception/ duty Office, Male visitor's toilet, Female visitor's toilet, Disabled visitors toilet, Girls duty room cubicle, 4x Girls sickbay, Sickbays toilet (Disabled), washbasin, shower and dispensary, 2x Girls Baths, 4x Girls Shower, 12x Girls Wc's, 6x Boys Washbasins, handwash laundry and Wash lines, Baggage store, Tuck store, Linen store, cleaning room, House Father's/Mothers 2 bedroom

6 Health and Safety Management

6.1 HSE Interface Management/Working on CDC Life Environment.

Safety is one aspect that cannot be ignored in School environment, as there are lives of student and community at large, in addition to the numerous school risks involved if a safety failure results in disruption of school operation, it is very imperative that the contractor develop detail plan of addressing these HIGH RISK ENVIRONMENT.

The unique EH&S hazards at school create a dangerous environment if not managed correctly, particularly in lieu of the students versa community and contractor operations, it will therefore not gonna be allowed on this project not to manage these risks, hence the contractor need to take into cognizant when developing their OH&S management.

All HSE interface management within CDC more especially , Thathezakhe high school project with all stakeholders, contractor, professional, etc, will be followed:

CDC have come to recognize that safety excellence is imperative to maximize uptime for their stakeholders while reducing operational risk. Of the many health and safety issues that Contractor must consider, these rules are not limited to,

- Interactions with other Contractors.
- Interactions student and staff.
- Interaction with Proffesional Team.
- Electrical Safety
- Hazordouse Chemical Substatnce,
- Lifting and Storage,
- Fire Safety,
- Lock out/Tag-Out

HSE Interface Specifies the requirements for the management of HSE Interfaces between all Stakeholders.

All contractors will prepare, implement and maintain the necessary standards, systems, processes and procedures, which provide for safe CDC operations and construction operations.

Technical interface, building, Mechanical and Electrical infrastructure and equipments or Electronic infrastructure and equipments that requires a high level of HSE vigilance..

7 Structure and Organization of Health And Safety Responsibilities

7.1 Overall Supervision and Responsibilities of Health and Safety

The Client's Agent shall establish guidelines for compliance pertaining to the nature of the project. These guidelines shall be in the form of Health and Safety Specifications. These guidelines shall be issued to all Designers as well the principal contractor.

The principal contractor shall develop a detailed health and safety plan which will be approved and implemented upon commencement of construction work.

The Principal Contractor appointed must ensure that all supervisory appointments as stipulated in The Act and Construction Regulations (CR) 2014 and H&S Act 85 of 1993, are made which should include but not limited to the following:

ACT/REGULATIONS	APPOINTMENT	RESPONSIBILITY
CR 3	Application of a Construction Permit	Client
CR 5(1)(K)	Principal contractor for the project	Client
Section 16(1&2)	MD and Assistant	Principal Contractor
CR 5(6)	Construction Health & Safety Agent	Client
CR 7(1) & (3) (c)	Contractor	Principal Contractor
CR 8(1) & (2)	Construction Manager/Assistant	Principal Contractor
CR8(5)	Construction Safety Officer	Principal Contractor
CR 8(8)	Responsible employee	Principal Contractor
CR 9(1)	Risk Assessor	Principal Contractor
CR 10(1)	Fall protection Planner	Principal Contractor
CR12(1)	Temporal work designer	Principal Contractor
CR 12(2)	Supervisor of Temporal work operation	Principal Contractor
CR 13(1)	Excavation supervisor	Principal Contractor
CR 13(2)(k)	Competent person in the use of explosive for excavations	Principal Contractor
CR 14(11)	Explosives expert	Principal Contractor
CR 14(1)	Supervisor demolition work	Principal Contractor
CR 14(2)	Scaffold supervisor	Principal Contractor
CR19(8)(a)	Material hoist inspector	Principal Contractor
CR20(1)	Bulk mixing plant supervisor	Principal Contractor
CR23(1)	Operator: construction vehicle and mobile plant	Principal Contractor
CR24	Accredited Electrician	Principal Contractor
CR27	Housekeeping supervisor	Principal Contractor
CR28(a)	Stacking and storage supervisor	Principal Contractor
CR29(h)	Fire equipment inspector	Principal Contractor

All contractors must ensure that the competence of the above responsibilities is verified and satisfies extensive competence required on similar projects. All appointments shall be in line with the definition of 'Competence' as contained in the Construction Regulations. The proof of competence will be attached to the said appointment letters.

7.2 Communication, Participation & Consultation

The principal contractor shall ensure that clear channels of communications are opened to address and make conversant to all employees on site regarding hazards associated with their activities on site.

This shall also include:

- Clear communications lines with the client with regard to progress, deficiencies, alterations to designs etc. that may impact on safety and deviations from the original health and safety plan;
- Communication with Labour with regard to notification of construction work, reporting of incidents as well as any other information that may be required;
- Consult and communicate with sub-contractors regarding safety plans, outcome of inspection and risk assessments as well as any nonconformance and corrective action;

The principal contractor shall as far as it is reasonably practicable keep record of such communication in the health and safety file.

8 Responsibilities

8.1 Client

- a) Develop a comprehensive health and safety specifications for construction work to provide any principal contractor who is making a bid or appointed to perform construction work for the Client;
- b) Provide the principal contractor with information that might affect the health and safety of any person at work carrying out construction work;
- c) Appoint a principal contractor in writing for the project or part thereof on a construction site;
- d) Ensure that the principal contractor is registered and in good standing with the compensation fund or any licensed compensation insurer before commencement of the project;
- e) Ensure that where changes are made to the design or construction sufficient information is made available to the principal contractor;
- f) Ensure that each principal contractor implement and maintain the health and safety plan on construction sites through monthly audits conducted at intervals mutually agreed upon between the client and the principal contract;
- g) Stop any contractor from executing construction work which is not in accordance with the health and safety plan;
- h) Ensure that the health and safety specifications shall form part of the tender documents to be supplied to all companies intended to submit their tender bids;
- i) Ensure that potential principal contractor submitting tenders have made provision for the cost of health safety measures during the construction process;
- j) Satisfy himself that all principal contractors appointed submit health and safety plans to maintain the construction sites as safe as is reasonably possible.
- k) Discuss and negotiate with the principal contractor the contents of the health and safety plan and thereafter finally approve the health and safety plan;
- l) Ensure that a copy of the principal contractor's health and safety specifications is available on request to an employee, inspector or contractor;

- m) May appoint an agent in writing to act as his or her representative and where such an appointment is made, the responsibilities as are imposed by the Construction Regulations upon a client, shall as far as reasonably practicable apply to the agent so appointed; and
- n) Ensure that he appoints an agent after reasonably satisfying himself that the agent has the necessary competence and resources to perform the duties imposed on the client by the Construction Regulations.

8.2 Designers

- a) All designers must ensure that all applicable safety standards incorporated into these regulations under section 44 of the Act are compiled;
- b) Take into considerations the health and safety specification submitted by the client;
- c) Ensure that the contract is put out to tender, make available in a report to the client, all relevant health and safety information about the design of the relevant structure, the geo-technical science aspects and the loading that the structure is designed to hold;
- d) Inform the client in writing of any known or anticipated dangers or hazards relating to the construction work and make available all relevant information required for the safe execution of the work upon being designed or when the design is altered;
- e) Refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons which can be avoided by modifying the design or by substituting materials;
- f) Take into account the hazards relating to any subsequent maintenance of the relevant structure and make provision in the designs for that work to be performed to minimize risks
- g) When mandate by the client to do so:
 - i. Carry out necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design;
 - ii. Stop any contractor from executing any construction work which is not in accordance with the relevant design's health and safety aspects;
 - iii. In his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use and issue a completion certificate to the client and a copy thereof to the contractor;
- h) During the design stage, take cognizance of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure

8.3 Principal Contractors and Contractors

The principal contractors and contractors are appointed in writing and letters of such appointments kept in a file. Principal Contractors will be in a position to ensure that all contractors appointed comply with the requirements of the Health and Safety Act 85 of 1993; the Construction Regulations 2014 and the requirements as contained in This Health and Safety Specifications.

The principal contractors shall ensure that contractors are only appointed after approval of the health and safety plans. Principal contractors shall audit their contractors on both administrative and physical inspections of the health and safety system.

The Client Safety Agent may stop the principal contractor from continuing with work if the health and safety of any person may be at risk. The principal contractor will also be expected to stop any work where he has reason to believe that the health and safety of any person may be at risk.

Health and safety plans of all principal contractors and contractors will be implemented and maintained throughout the duration of the project through regular audits. Where changes are brought through designs the health and safety specifications as well as the health and safety plan shall be modified to suit the changes. The principal contractor will be expected to appoint contractors who are in good standing with the Compensation Commissioner.

All principal contractors must amongst others:

- Ensure contractors submitting tenders have adequately provided for health and safety costs;
- Negotiate with the contractor the contents of the health and safety plan and shall finally approve that plan for implementation;
- hand over a consolidated health and safety file to the client upon completion of the construction work and this shall include a record of all drawings, designs, materials used and other similar information concerning completed structures; and
- Appoint a contractor when he has satisfied himself that he has the adequate competence and resources to perform the construction work safely.

9 Health and Safety Compliance and Administration Requirements

Contractor is to submit a OHS Plan and Risk Assessment that will address COVI-19 as well, See below a process flow to be followed; and Requirements, please refers to Annxure 9 for guidelines as well.

HSE Plan to be submitted should address amongst other things, the following,

- A detailed Method Statement that will cover all OHS related risks including COVID-19 and all government Lockdown Regulations.
- Site access to be controlled and All employees to be screened with non-contact thermometers. Please refers to Annexure 9.
- OHS Induction and Training to be conducted Reduce the number of people in attendance at site inductions and consider holding them outdoors.
- Total number of employees required to complete remainder of the work, work method to be submitted so as to address social distancing.
- All employees to be issued with permit where necessary
- Provide additional handwashing facilities
- Provide misting hand sanitizers in all strategic places on site.
- Ensure soap and fresh water is always readily available.
- Provide hand sanitiser where hand washing facilities are unavailable.
- Regularly clean the hand washing facilities and check soap and sanitiser levels.
- Practice proper waste removal and separations and disposal.
- Sites to have extra supplies of soap, hand sanitiser and paper towels
- Strict and disciplinary measures to be adhered
- Restrict the number of people using toilet facilities at any one time.

- Employees to wash hands before and after using the facilities.
- Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush.
- Only necessary meeting participants should attend.
- Attendees should be two metres apart from each other.
- Rooms should be well ventilated / windows opened to allow fresh air circulation.
- Consider holding meetings in open areas where possible.
- A questioner for every employee or visitor must be in place with specific Covid related activities

9.1 Notification of Intention to Commence Construction Work and CWP Permit

All contractors would be expected to notify the Provincial Director of the Department of Labour in writing prior to commencement of construction work. A copy of the notification of construction work must be held in the Contractor's health and safety file on site. Contractors not included in the initial Notification letter must report their construction work as employers in their own right. **The compliance will cease to be applicable in case of applicability of the construction permit.**

A permit will only be required if the Work will:

Exceed 180 days;

Involve more than 1800 person days of Work;

Include a contract for the work which work is of a value equal to or exceeding thirteen million rand or is for the Construction Industry Development Board grading level 6. or new CIDB Reviewed Guidelines.

The Provincial Director must issue a construction work permit in writing to perform construction work contemplated in sub regulation (1) within 30 days of receiving the construction work permit application and must assign a site specific number for each construction site.

9.2 COIDA & Health and Safety Incident/Accident Reporting and Investigations

The Principal Contractor on intended projects must have in their possession a COIDA (Compensation of Occupational Injuries and Diseases Act) letter of good standing as proof of registration and shall be kept in the health and safety file.

The principal contractor shall report all incidents **within 7 days** where an employee is injured on duty to the extent that he/she:

- Dies;
- Becomes unconscious;
- Loses a limb or part thereof;
- Is injured or becomes ill to such a degree that he/she is likely either to die or suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed;
- A major incident occurred;
- The health or safety of any person was endangered;
- Where a dangerous substance was spilled;

- The uncontrolled release of any substance under pressure took place;
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects

The principal Contractor is required to provide the Client and or its Agent with copies of all statutory reports required, copies of all internal and external accident/incident investigation reports, ensure that all employees injured to the extent that they receive first aid or be referred for medical treatment by a doctor records and all investigations recorded and medical reports so received.

The principal contractor shall ensure that incident investigations also explores the underlying health and safety deficiencies, corrective/preventative actions and continual improvement and communicate the outcome /results and documenting the events of the investigations.

The principal contractor must report near-misses to create a health and safety awareness culture on site and enforce the reporting of near misses as they happen. Principal contractors and contractor shall investigate injuries and incidents and keep records in the form of Annexure 1 (General Administrative Regulations) and forward a copy of the investigation report to the Clients Agent forthwith. This compliance requirement shall equally apply to the contractors appointed by the principal contractor.

9.3 Health and Safety Policies

The Principal Contractor must submit copies of the Health and Safety Policy signed by their Chief Executive Officers. The policy should outline the objectives to ensure the establishment and implementation of sound health and safety management systems on site.

Some policies such as Intoxication policy, HIV Management Policy, smoking policy, PPE policy, Medical examination policy, Subcontractor Management Policy amongst others must be incorporated.

9.4 Health and Safety Organogram

The Principal Contractor must prepare an organogram outlining site health and safety management structure including appointments and competent persons. The organogram would be used to indicate intended positions where appointments are or not made and shall be updated on an ongoing basis. These should reflect the responsibility and correspond to the current activities as scheduled and undertaken on site.

9.5 Hazard Identification and Risk Assessment

The Principal Contractor must cause a hazard identification risk assessment to be undertaken by a competent person before commencement of construction work.

The following shall be included in the risk assessment:

- COVID-19 Risks to be included in the Risk Assessment.
- A list of hazards identified as well as potentially hazardous tasks;
- A documented risk assessment based on the list of hazards and tasks;
- A set of safe work procedures (work methods) to eliminate, reduce and/or control the risks assessed; and
- A monitoring and review procedure of the risk assessments as the risks change.

Over and above the above requirements the Principal Contractor must ensure that all contractors inform, instruct and train their workers regarding any hazards, risks and related safe work

procedures before any work commences and thereafter at regular intervals as the risks change and as new risks develop. These risk assessments should be aligned to the baseline risk assessment initially issued by the OHS Agent before commencement of construction work.

This training should be carried out in the form of toolbox health and safety talks. Contractors must conduct their own toolbox talks and submit proof of these talks to the principal contractor at least weekly. A principal contractor must ensure that all persons likely to be affected by hazards and risks arising from his activities are trained and informed and proof of such information sessions are kept in the safety file. Contractors will also conduct their own risk assessment specific to their operations and submit to principal contractor who will be required to report on the status of these matters to the Client Safety Agent.

9.6 Health and Safety Representatives

A principal contractor shall appoint health and safety representatives in writing after consultation with the employees and ensure they are trained to carry out such responsibilities. All appointments shall be in writing and expected to carry out regular inspections, keep records and report all findings at a health and safety meeting. Employers will appoint health and safety representatives as soon as 20 employees are employed on site. A principal contractor shall ensure that health and safety representatives represent Labour/employees and are not part of management.

9.7 Health and Safety Committees

A principal contractor shall establish a project health and safety meeting **on a monthly** basis and keep records of such meetings. Meetings will be chaired and organized by the Principal Contractor's Responsible person (Section 16(2)) or CR 8(1) or as the case may be. The principal contractor shall ensure that all contractors have representation at project health and safety meetings in the form of construction work supervisors and health and safety representatives.

Contractors will also have their own health and safety committees and forward such minutes to the principal contractor on a monthly basis or form part of the principal contractor's health and safety committee.

9.8 Induction & Awareness

An initial Induction session shall before commencement of construction activities be undertaken by the H&S Agent to inform all professional team members, contractors' management staff as well as stakeholder with vested interest in the project. This Induction session shall outline H&S responsibilities, observations and expectations on all participants in the project. All persons present at Induction sessions shall acknowledge understanding, commitment of all the established site rules and regulations by signing documentation at such a session.

A principal contractor shall cause every employee to undergo site-specific –Induction training session before commencement of the project. Such details and proof of attendance shall be kept in the safety file. The principal contractor shall ensure that a suitable venue is available to conduct such training. This shall apply to all visitors on site.

A principal contractor must conduct health and safety toolbox talks on a weekly basis. Toolbox talks shall have topics relevant to hazards, risks and safe working procedures on site and proof of such awareness attendance training shall be kept in the safety file. All contractors will ensure that copies of attendance of awareness sessions are submitted to the principal contractor for safe keeping.

9.9 Site H&S Rules and Security

The principal contractor must develop a set of site-specific H&S rules that will be applied to regulate the compliance to the health and safety plan. These rules must be applied to visitors and no-employees upon entering the site and shall be issued with PPE (Personal Protective Equipment) as and when necessary. Hard hats and reflective vests shall be available for visitors on site.

The principal contractor must establish site access rules implement and maintain them throughout the construction period.

9.10 Competence

A principal contractor shall ensure that all employees have the knowledge, 10 years experience, training and qualifications specific to the work they have been appointed to supervise, control and carry out the assigned responsibilities pertaining to construction work.

9.11 General Record Keeping

A principal contractor shall keep and maintain all health and safety records aimed at complying with the This Health and Safety specifications, the Occupational Health and Safety Act 85 of 1993 (and all applicable Regulations) as well as Construction Regulations 2014. These records shall include but not limited to all records outlined under the Contents of the Health and Safety File.

The relevant records shall be kept and maintained by contractors including the approved health and safety plan. These records must be consolidated and submitted to the H&S Agent by the principal contractor at the end of the project.

9.12 Health and Safety Audits, Monitoring and Reporting

A health and safety audit of the work operations including a full audit of physical site activities and administration of health and safety shall be conducted by the appointed H&S Agent and he/she shall ensure that a principal contractor also undertakes to conduct similar audits at least once a month for all contractors appointed on site.

Reports generated shall be available for discussion during site meetings. The principal contractor shall in response to the audit report made available by the H&S Agent, ensure that a corrective action report with responsibilities, action and target dates is compiled and presented in response to the H&S Agent's report.

10 Emergency Preparedness and Responses Procedures

10.1 Site Specific or Project Emergency Procedure

The Principal contractor to prepare as request by the client or the owner of the premises to comply with their Emergency Procedure and Plan to be executed in accordance with the directions of the clients Emergency Evacuation Controller, subject to:

- Review of the procedure to ensure that it provides adequate protection to personnel and equipment.
- Clear definition of responsibilities in the event of an emergency.
- Communication and/or training of the procedure's requirements to personnel.

Should the contractor developed their own Emergency procedures, In the event of the adoption of a client or owner's Emergency Procedure, an overview of the arrangements shall be included in the contractor Project Health, Safety, Environment Plan , and be maintained and followed at all times.

10.2 Emergency Team

In order to formulate and execute an Emergency Procedure and Plan, responsibility shall be allocated to Construction manager and his/her team.

The relevant Manager shall establish an Emergency Team consisting of appropriate personnel such as the Construction Manager, HSE officer/Coordinator, Supervisors, Project Engineers, etc. If any Health and Safety Representatives exist for the specific site, they shall also be included in the Emergency Team.

The Emergency Team shall nominate an Emergency Evacuation Controller and Emergency Evacuation Coordinator. A number of Emergency Evacuation Wardens appropriate to the size of the site must also be appointed.

10.3 Preparation of an Emergency Procedure

The Emergency Procedure shall be developed in line with the hazards identified and assessed during the initial risk assessment for the site.

It may also be practical to conduct a detailed medical survey for the project region. The survey recommendations will need to include the minimum first aid requirements for the site and an assessment of external medical facilities and establishments equipped to deal with the emergency situations identified in the procedure.

In preparing an Emergency Procedure, the following must be considered:

- The types of unplanned events the site may encounter;
- The impact of restricted visibility on evacuation routes. Areas may be inaccessible or too dangerous to use, stairwells may be smoke logged etc;
- The existence of emergency communication facilities to cover any unforeseen situation;
- The procedure for registering and recording all personnel on the construction site for the purpose of roll calling;
- The needs of persons with disabilities, persons not familiar with the emergency procedures and persons with language barriers;
- The need for evacuation procedures to be varied for differing circumstances, specifically providing for underground evacuations where appropriate;
- Provision for all people who may be at the workplace, including visitors;
- The procedure for how to mobilise medical help from site (i.e. the detailed, specific stages involved), including details of first aiders and a list of first aid kit locations;
- Analysis of the transport options for evacuation from site under medical emergencies, severe weather conditions, terrorist threat and prior to/during/following a natural disaster. This should include the access and egress on site with specific consideration of access for Emergency Services;
- The preferred travel options (by air/road/river/sea etc) for emergency evacuation of both individuals and groups. This needs to include evacuation to all possible locations for receiving required treatment. A graphical layout showing alternative routes, methods and travel times should be compiled as a quick reference guide.

10.4 Unplanned Events

The following is a list of the types of situations that constitute an unplanned event. The list is not exhaustive and the influencing elements on the individual site must always be taken into account.

- Bomb threat
- Building invasion/armed intrusion
- Bushfire
- Chemical, biological and radiological
- Civil disorder
- Cyclones, including storm surge
- Earthquake
- Fire
- Flood
- Hazardous substances incidents
- Industrial accident
- Letter bomb
- Medical emergency
- Severe weather/storm damage
- Structural instability
- Terrorism
- Transport accident
- Toxic emission

10.5 Documentation and Signage for the Emergency Procedure

Once determined, emergency exits and escape routes shall be clearly signed on site.

The documented Emergency Procedure shall provide a layout plan of the site, depicting where relevant services and communication equipment is located. Emergency exits shall also be clearly displayed on the plan along with the preferred evacuation route.

In addition to the above, the documented procedure shall also:

- State clearly its purpose and scope;
- Identify the buildings, structures and workplaces to which they apply;
- Be based on a practical assessment of possible threats;
- Be appropriate to the size and complexity of the buildings, structures and workplaces and the number and type of occupants;
- Define overall control and coordination arrangements and the roles and responsibility of all persons involved;
- Be flexible to allow the Emergency Evacuation Controller to adapt to the changing circumstances of an emergency situation, such as the penetration of smoke into stairwells;
- Take into account the hours of occupancy; and
- Be easy to use and amend.

A principal contractor shall prepare a detailed emergency procedure prior to commencement of construction work. The procedure will detail responses plan including the following key elements such as:

- List of key personnel;
- Details of emergency personnel;
- Actions or steps to be taken in the event of the specific types of emergencies; and
- Information on any hazardous materials/situations
- Emergency procedures shall include but not limited to:
 - Fire;
 - Chemicals spills;
 - Injury to employees;
 - Damage to material/equipment /plant;
 - Use of hazardous substances;
 - Bomb threats;
 - Major incidents/accidents etc.

A principal contractor shall advise the client in writing forthwith of any emergencies together with a record of action. A contact list of all Emergency authorities (Fire Department, Ambulance, Police, medical and Hospital etc.) must be maintained and made available to site personnel. Emergencies will consider site locations, exit points and emergency services accessibility. All media and client liaison shall be directed to an appointed and assigned Client media liaison officer. The principal contractor shall test the effectiveness of the emergency procedure through occasional evacuation drills.

10.6 First Aid Boxes, First Aid Equipment and Medical Examinations

A principal contractor and contractors must appoint First Aiders in writing. The appointed persons will be a certificated and permanent member of the on-site team. Copies of valid certificates will be kept on site. The name and contact number of the first aider shall be affixed on the first aid kit on site. A principal contractor will provide an on-site First Aid Station with first aid facilities, including at least 1 first aid box adequately stocked at all times. All contractors with more than 5 employees shall supply their own first aid box. Contractors more than 10 employees shall have their own trained, certified first aider on site at all times.

All employees of the Principal contractor and Contractors shall undergo medical examinations prior to commencement of construction work. Records of such medical fitness certificates shall be kept as part of employee's personal files, kept valid and available on site throughout the duration of the project.

10.7 Minimum Contents for First Aid Boxes.

- Wound Cleaner/Antiseptic (100ml) - (reduce quantity in half in case of offices).
- Swabs for cleaning wounds
- Cotton wool for padding (100g)
- Sterile gauge (minimum quantity of 10)
- 1 pair of forceps (for splinters)
- 1 pair of scissors (minimum 100mm size)

- 1 set of safety pins
- 4 triangular bandages - reduce quantity in half in case of offices
- 4 Roller bandages (75mm X 5m) – (reduce quantity in half in case of offices)
- 4 Roller bandages (100mm X 5m) - (reduce quantity in half in case of offices)
- 1 Roll of elastic adhesive (25mm x 3m)
- 1 Non-allergenic adhesive (25mm x 3m)
- 1 Packet of adhesive strips (minimum quantity, 10 assorted sizes)
- 4 First aid dressings (75mm x 100mm) - (reduce quantity in half in case of offices)
- 4 First aid dressings (150mm x 200mm) (reduce quantity in half in case of offices)
- 2 Straight splints
- 2 Pairs large and 2 pair's medium disposable latex gloves (reduce quantity in half in case of offices)

10.8 Hazards and Potentially Hazardous Situations

All appointed contractors shall immediately notify the principal contractor of any hazardous or potentially hazardous situations that may arise during the performance of construction activities prior to commencement of appointed responsibilities.

These situations shall be recorded in the form of Daily Safety Task Instructions checklists (DSTI)

11 Personal Protective Equipment (PPE) and Clothing

The principal contractor must after be assessing the potential risks attached to his workplace and after satisfying himself that no engineering controls are available to mitigate the risks, ensure all site workers are issued with appropriate PPE for the risk they may be exposed to.

The principal contractor and contractors will make provision and keep adequate quantities SANS (South African National Standards) approved PPE on site at all times according to the risk assessments. All principal contractors will be required to clearly outline procedures to be followed when PPE is lost or stolen and when it is worn out or damaged.

The following are typical examples of PPE;

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 Hardhats including 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 Protection 	Eye and Face (also Hand and Body) Protection (Goggles, Face Shields, Welding Helmets etc.) used when operating the following:
Hand Protection 	Protective Gloves worn by employees handling / using / offloading construction materials: Cement / Bricks / Steel / Chemicals ☐
Fall Prevention Equipment 	Suitable Safety harnesses / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.: Edge work Offloading of trucks ☐
PPE Issue & Control	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. PPE remain property of Employer, not to be removed from premises GSR 2(4)

12 Health and Safety (OHS) Signage

The principal contractors must provide adequate on-site H&S Signage including but not limited to:

No unauthorized entry; Report to site office; Site office; First aid, fire equipment, emergency and assembly areas, male and female facilities, flammable liquids, no smoking, noise zones, scaffold safety, excavation safety, beware of overhead work; hard hat area; etc.

All signage must be posted up at all entrances to site as well as on site in strategic locations. access routes, stairways, entrances to structures and buildings, scaffolding and other potential risk areas/operations. Health and safety signage will be maintained including weekly inspections, cleaning, replacement and repair.

Below are the typical signage categories:

Information Signs	
Mandatory Signs	
Prohibition Signs	
Warning Signs	

13 Public and Site Visitor Health and Safety

The principal contractor shall cause every person to be made aware of dangers/hazards likely to arise from site activities including precautionary measures to be taken to avoid or minimize such dangers/hazards. The principal contractor shall ensure that due to the location of the site, he ensures that hoarding (in the form of invisible material accompanied by a solid fence structure) is instated around the perimeter of the site to prevent job seekers and specifically children from walking on to the site.

The principal contractor shall ensure that access to the site is controlled at all times and access points are kept close while not in use. The principal contractor will be expected to implement a weekly inspection register which monitor the effectiveness of the hoarding as well as the safety signage so as to ensure it remains intact. The principal contractor shall ensure that all site visitors are briefed by the principal contractor to reveal possible hazards/risks a register to proof attendance of such information sessions must be kept safely.

Where construction work takes place adjacent to or over public walkways, roadways and other public places must be diverted or protected by means of a pavement gantry with a sufficiently strong overhead structure. The overhead gantry shall be constructed with scaffold boards or 45mm timber boards. Fence and signs shall be used where pedestrians will be diverted and flagmen where cars are diverted.

14 Night Work (before and after hours)

The principal contractor shall ensure that where work has to be carried out at night adequate lighting is provided. Risk assessments and method statement for the intended activities shall be submitted to the H&S Agent for approval prior to such work taking place. The work is approved by local municipality as per National Building Regulation.

15 Occupational Hygiene

The principal contractor will ensure that workers are not exposed to occupational hazards and risks that are very common in construction. All principal contractors will ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards through inhalation, ingestion, and absorption. All noise generating activities shall be identified, analyzed and appropriate noise prevention strategies be implemented. All employees exposed to noise shall undergo audiometric tests and noise prevention induction.

Dust generation shall also be kept to a minimal and dust reduction strategies be implemented to safeguard the health of employees, visitors and neighboring community. Lighting must be adequate for all activities including confined spaces and night activities. Care should be taken to ensure optimal exposure to vibration producing events and machinery and rest breaks be instituted where the activity cannot be stopped or substituted.

Where employees are exposed to extreme hot or cold temperatures, care must be taken to ensure that means to protect them from worst impact of such exposures are implemented. In very high temperatures appropriate PPE to cover hands and limbs must be provided. Employees must be hydrated at regular intervals and a first aider be made available at all times. Rest breaks must be instituted where applicable.

16 Welfare Facilities

The principal contractor shall supply the following: Sufficient toilets for each sex and for every 30 employees; changing facilities; hand washing facilities, soap, toilet paper and hand drying material; strategically placed waste bins emptied regularly; safe and clean storage areas to store personal belongings and PPE and Sheltered eating areas.

17 Alcohol and other Drugs

The principal contractor shall ensure that no alcohol and other drugs are allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the principal contractor forthwith.

Any person suffering from any illness/condition that may have a negative effect on his /her safety performance must report this to his/her superior, who shall in turn report this to the Principal contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. The contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to the principal contractor for his records.

The principal contractor should ensure that a reliable equipment exist to allow him records of intoxicated employees.

18 Contents of Health and Safety File

The following guideline should be used in compiling a health and safety file. The principal contractor must ensure that he covers all areas of compliance as required by the H & S Act 85 of 1993 and applicable Regulations.

PRELIMINARIES
H&S Plan (insert a health and safety plan in line with the health and safety specifications. Follow the numbering in the specification in your compilation)
Risk Assessment (A baseline risk assessment is provided. An activity-based risk assessment is required)
Letter of Good Standing (please attach a valid dated copy)
Notification of Construction work/Construction Permit (attach a completed notification with a department of Labour stamp)
H&S ACT REQUIREMENTS
Health and Safety Policy (please attach a copy signed by the CEO)
16(1&2) appointment (a representative appointed by the CEO and given the authority to appoint other roles and responsibilities)
Health and Safety Representatives, Appointment and Checklist (please include all)
Health and safety committee appointments (include appointment letters)
Training of relevant supervisory roles (make reference to CV's and attached certificates)
Induction of employees and contractors on the Risk assessment (provided a framework for complying with this requirement)
Health and safety meeting procedure (please insert as part of the plan or under safe working procedures)
Health and safety minutes (please insert a framework used during meetings)
Incident management procedure, appointment (please insert as part of the plan or under safe working procedures)
Contractors agreements-sec 37(2)- (insert blank form used)
Toolbox talks- (insert manual with topics to be used in line with the activities anticipated in the project)
FACILITIES REGULATIONS
Provision of sanitary facilities (outline in the H & S plan)
Appointed person to inspect and checklist (insert under registers or checklists)
Facilities for safekeeping (outline in the H & S plan)
Appointed person to inspect and inspection checklist (insert under registers or checklists)
Other facilities for eating, changing etc. (outline in the H & S plan)

GENERAL ADMINISTRATIVE REGULATIONS
Copy of the Act (outline this aspect in the H & S plan and a full and updated copy with regulations to be verified on site)
Access conditions (outline in the H & S plan)
WCL2 forms- (please insert in the file)
Annexure 1 incident recording and reporting (please insert in the file)
CONSTRUCTION REGULATIONS
Copy of The Client H&S Specification (please insert in the file)
Copy of the Baseline Risk Assessment. (please insert in the file as provided by the Clients Agent)
List of Subcontractor (please insert in the file)
Appointment of A Construction Manager (attach copy of the appointment letter)
Appointment of Construction Manager Assistant (attach copy of the appointment letter)
Subcontractors Appointments (attach copy of the appointment letter)
Subcontractor Induction (include commitment in the file)
Subcontractors H & S Files (include commitment in the file)
Appointment of A Safety Officer (include a completed appointment letter)
Fall Protection Plan, Appointment, medical certificates and Checklist (please include all)
Structure, Appointment and Checklist (please include all)
Formwork and Support, Appointment and Checklist
Scaffolding, Appointment and Checklist (please include all)
Excavation appointment and checklist (please include all)
Construction Vehicles and Mobile Plant, medical fitness and operator's competence, Appointment and Checklist (please include all)
Electrical Installations and Machinery, Appointment and Checklist (please include all)
Use of Temporary Flammable Liquids, Appointment and Checklist (please include all)
Water Environments (please include all)
Housekeeping, Appointment and Checklist (please include all)
PPE, Appointment and Checklist (please include all)
Stacking and Storage, Appointment and Checklist (please include all)
Fire Precautions and Emergency, Appointment and Checklist (please include all)
Emergency Contact Details (include checklist with details in the file)
Construction employees' facilities, Appointment and Checklist (please include all)
Explosive powered tool appointment and checklist, (outline in the H & S Plan provide appointment and checklist)
Medical fitness certificate for all employees to be employed on the project. (provide proof or any arrangement with specific details)
Letter of Good Standing with the Compensation Commissioner(valid)
GENERAL SAFETY REGULATIONS
PPE Assessment (make reference to the Risk Assessment)
PPE Provision, PPE Induction, PPE Enforcement Checklist (please outline in the H & S Plan and include checklist)
First Aid Kit, Appointment, Qualification, (outline in the H & S Plan, completed appointment, CV, Certificate to be provided)
Procedure for First Aid, (outline in the H & S Plan)
Welding, appointment and checklist, (outline in the H & S Plan provide appointment and checklist)
Ladders Inspection Appointment, Checklist, (outline in the H & S Plan provide appointment and checklist)
OTHER REGULATIONS
Any other applicable Regulations, (outline in the H&S Plan provide appointment and checklist)

19 Procurement of Materials for Construction Work

The Principal Contractor shall ensure that all materials procured for use on site are reasonably safe and without risk to health and safety of employees on site when properly used and that they comply with the prescribed requirements.

The Principal Contractor shall also undertake to ensure that necessary information is made available:

- With regard to the use of the substance at work and provided by the seller of the material;
- With regard to the risks to health and safety associated with such substance;
- With regard to the conditions necessary to ensure that the substance will be safe and without risk to health and safety when properly used; and
- The procedures to be followed in the case of an accident involving such substances.

20 Risk Assessment

The principal contractor has a duty to ensure and provide a work environment that is as far as is reasonably practicable safe and without risk to the health of his employees. This is normally achieved through identification of potential risk associated with the activities on site.

Every contractor performing construction work shall, before the commencement of any construction work or work associated with the construction work, and during construction work, ensure that a risk assessment is undertaken by a competent person, appointed in writing, and the risk assessment shall form part of the health and safety plan to be applied on site.

The risk assessment shall include at least the following:

- The identification of the risks and hazards to which persons may be exposed to;
- Analysis and evaluation of the risks and hazards identified;
- A documented plan of safe working procedures to mitigate, reduce or control the risks and hazards that have been identified; and
- A monitoring and review plan.

The risk assessment will be based on a methodology that should identify and analyses the risk on the basis of:

Probability - the likelihood that such risk can occur

Severity - this should take into consideration the potential injuries likely to be incurred, the impact on costs and production as well as the detriment effect of any risk on the environment

Frequency - given the probability is the risk present permanently, occasionally or insignificant?

The risks should be given a value which should be given an indication of the priority to be given to the particular risk.

To mitigate the identified risk:

- Rules and procedures may be developed,
- Training emphasized
- Additional/alternative equipment recommended
- Changes in process or methods to accommodate safer methods

There should be ongoing risk assessment that should be undertaken by any person appointed and competent to conduct a risk assessment. The plan with the completed risk mitigation shall be handed over to the client together with the health and safety file at the termination of the contract.

The principal contractor is to review the hazards identified, the risk assessments and the Safe Working Procedure at each production planning and progress meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and/or processes.

The principal contractor must provide the client, other contractors and all other concerned or affected parties with copies of any changes, alterations or amendments to risk assessments and SWP's within 14 days of such changes.

A principal contractor shall ensure that a copy of the risk assessment is available on site for inspection by an inspector, client, client's agent, contractor, employee, representative trade union, health and safety representatives or any member of the health and safety committee.

Every principal contractor shall consult with the health and safety committee or, if no committee does exist, with a representative group of employees, on the development, monitoring and review of the risk assessment.

The principal contractor shall ensure that all employees are informed, instructed and trained by a competent person regarding any hazards and the related work procedures before any work commences and thereafter at such interval determined in the risk assessment.

A principal contractor shall ensure that no employee or any person shall be allowed to enter the site unless such employee or person has undergone safety induction training pertaining to the hazards prevalent on the site at the time of entry, such induction shall include visitors.

Employees on site shall have in their possession proof of the health and safety induction training issued by a competent person prior to commencement of the construction work which shall be carried by employees for the duration of the construction site.

21 Environmental Consideration.

In compliance with Environmental regulations and Act, the contractor and the fight against pollution, no polluting emission (corrosive, toxic or odorous gas or liquid or solid particles) may be released into the atmosphere and water and all polluting products may not be discharged (chemical, bacterial, mechanical or radioactive) into pipes, sewers, rivers and onto the grounds at CDC site.

21.1 Site Specific Waste Management

This part will be covered Under Environmental Scope.

CDC waste objective is to achieve an 0% reduction in solid waste disposal at all times and Good waste management entails good housekeeping practices such as:

1. Reduce the amount of waste generated
2. Reuse waste.
3. Recycle waste.
4. Sort and discard waste into the correct bin or container.

The purpose of this HSE Specification is to provide guidelines to ensure that proper:

- Waste separation and classification is performed
- Control is exercised for the removal and disposal of hazardous waste and materials.

TERMS	DEFINITIONS
Building and demolition waste	Means waste, excluding hazardous waste, produced during the construction, alteration, repair or demolition of any structure, and includes rubble, earth, rock and wood displaced during that construction, alteration, repair or demolition.
Business waste	Means waste that emanates from premises that are used wholly or mainly for commercial, retail, wholesale, entertainment or government administration purposes.
By-product	Means a substance that is produced as part of a process that is primarily intended to produce another substance or product and that has the characteristics of an equivalent virgin product or material.
Domestic waste (yellow bin):	Means waste, excluding hazardous waste that emanates from premises that are used wholly or mainly for residential, educational, health care, sport or recreation purposes.
General waste (yellow bin)	Means waste that does not pose an immediate hazard or threat to health or the environment, and includes – (a) domestic waste (b) building and demolition waste (c) business waste; and (d) inert waste.
Dust (blue bin)	Site clean-up dust.
Hazardous waste (green bin):	Means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological. Any waste that directly or indirectly represents a threat to human health or to the environment by introducing one or more of the following risks: Explosions or fire; Infections, pathogens, parasites or their vectors; Chemical instability, reactions or corrosion; Acute or chronic toxicity; Cancer, mutations, tumours or birth defects; Toxicity, or damage to the ecosystems or natural resources; Accumulation in biological food chains, persistence in the environment, or multiple effects; That requires special attention and cannot be released into the environment, or is added to sewerage, or is stored in a situation, which is either open to the air or from which aqueous shall be taken to be leachate could emanate. In other words this includes all substances listed in the hazardous substances inventory, as well as waste products or effluents from a site that contains any of the listed materials, mixtures or products thereof. All domestic waste contaminated with oil or chemicals are included. Study MSDS's for more detail.
Safe disposal	Disposal to a suitable waste disposal site.
Disposal	Means the burial, deposit, discharge, abandoning, dumping, placing or release of any waste into, or onto, any land.

Inert waste	Means waste that – (a) does not undergo any significant physical, chemical or biological transformation after disposal; (b) does not burn , react physically or chemically biodegrade or otherwise adversely affect any other matter or environment with which it may come into contact and; (c) does not impact negatively on the environment, because of its pollutant content and because the toxicity of its leachate is insignificant.
Minimization	When used in relation to waste, means to avoidance of the amount and toxicity of waste that is generated and, in the event where waste is generated, the reduction of the amount and toxicity of waste that is disposed of.
Storage	Means the accumulation of waste in a manner that does not constitute treatment or disposal of that waste.
Treatment	Means any method, technique or process that is designated to – (a) change the physical, biological or chemical character or composition of an waste; or (b) remove, separate, concentrate or recover a hazardous or toxic component of a waste; or (c) destroy or reduce the toxicity of a waste, In order to minimise the impact of the waste on the environment prior to further use or disposal.
Waste	Means any substance, whether or not that substance can be reduced, re-used, recycled and recovered – (a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of; (b) which the generator has no further use of for the purpose of production; (c) that must be treated or disposed of; or (d) that is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but – (i) a by-product is not considered waste; and (ii) any portion of waste, once re-used, recycled and recovered, ceases to be waste.
Waste disposal facility	Means any site or premises used for an accumulation of waste with the purpose of disposing of that waste at that site or on that premise.
Medical waste	Medical waste includes the following components: infectious waste, sharp objects, anatomical waste, pharmaceutical waste (medicine and pills), pressurized containers, hazardous chemical waste.
Steel scrap (red bin)	All steel scrap,spares, side scrap, tail and end scrap, bearings, empty oil drums and empty paint drums.
UN number 	An internationally excepted four digit number to make life easier in multi-language situations to indicate the correct name for the product / chemicals being transported. The UN identification number shall be displayed on the pleading on the back and sides of the vehicle transporting the hazardous waste.
Single load placard: 	Where one product is transported that correlated with the UN number on the placarding

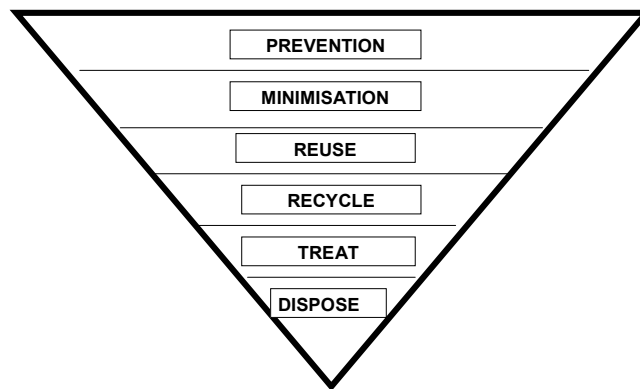
21.2 Method of Control

The sites where the waste is generated, will keep an accurate database of waste generation, trade, storage, transport and disposal.

These safe disposal certificates must be in kept on a safe place.

Note: Please report all new waste streams to project HSE Agent for the necessary waste classification and arrangements.

21.3 Waste Management Principles



All construction processes inevitably lead to waste generation. The producer of the waste is responsible with input from SHEQ from the SHEQ department to manage and minimise their waste.

Responsible waste management involves the use of efficient technologies and the training of workers in order to make provision for waste separation and easy recovery for reuse and recycling purposes.

The focus of waste management will have to, prevent, reduce, reuse and recycle, then as a last option the waste must be treated to reduce toxicity before disposal.

The following guidance can be used if needed:

- Waste recovery. There a number of different types of waste recovery such as
- material recycling (e.g. paper, glass, plastic, cold drink cans, scrap metal, tyres, etc.),

21.4 Classification of Waste

The classification of solid waste determines handling methods and the ultimate disposal of material. Waste is classified into hazardous waste and non-hazardous waste.

WASTE	CLASSIFICATION	
	HAZARDOUS	NON-HAZARDOUS

Soil, construction debris and building rubble, tires, steel scrap (metal scrap), timber / wood, electrical components such as cables, panels, motors, plastic such as bottles, bags, personal protective equipment (PPE), rubber, conveyor belt, electronic waste (computers, keyboards, etc.), laser jet and printer cartridges, fiber glass and cold drink cans.		X
Anything contaminated / soiled by hazardous chemicals, oil or organic compounds, oil (containing PCB's) and grease (lubricants), phenolic waste paint and/or solvents, waste containing appreciable properties of fibrous asbestos, sewerage sludge, explosive waste, aerosol containers, medical waste, radioactive sources, asbestos (such as asbestos heaters), fluorescent tubes, discharge lamps, batteries (wet and/or dry), catalytic and electrochemical sensors (of gas analyzers), instrumentation cells. Man-made mineral fibers also known as Kay wool is classified as hazardous waste due to health reasons.	X	
Empty drums (depends on prior use). Empty paint and coating containers (depends on composition).	X	
Office waste		X
Restaurant and/or canteen waste		X

Note: Any non-hazardous waste such as glass, plastic products, packaging material, cardboards, paper, wood PPE, soil, etc. which is contaminated with oil or chemicals must be reclassified as hazardous waste. If doubt exists on the classification of waste a memorandum / report stating the classification must be obtained before disposed,

It is strictly forbidden, because of risk of explosion, to put hollow vessels (gas bottles, reservoirs, empty drums, etc) into metallic waste bins.

The contractor must remove, at his expense, his waste from the CDC site to approved waste treatment centres.

THE POLLUTER PAY PRINCIPLES WILL APPLY ON THIS PROJECT.

21.5 Cost of Construction Health and Safety Measures

The principal contractor submitting a tender shall ensure that adequate provision for the costs of health and safety measures. These are costs to adequately comply with This Health and Safety Specifications, H & S Act 85 of 1993, Construction Regulations 2014 and incorporated health and safety standards (SANS-South African National Standard). The principal contractor may use the following guideline category to quantify the anticipated costs on this project:

- COVID-19 PPE, Testing etc.
- Health & Safety Management Costs;
- Health & Safety Administration Costs;
- Health & Safety Operational requirements;
- Health & Safety Contractor Management; and
- Equipment Calibration, service and maintenance

COST FOR HEALTH AND SAFETY MEASURES
H&S MANAGEMENT

Health and Safety Plan
Health and safety file
Risk assessments
Method statement and safe working procedure
Construction Safety Manager
Construction safety officer
Medical fitness examinations
Education and training • Risk assessment • Safe working procedures • Method statement • First aid • Fire fighting • Health and safety representatives • Incident investigations • Formwork supervision • Scaffold erectors • Scaffold supervisor • Scaffold inspector • HAZOP • Welding
GENERAL ADMINISTRATION
• Notification of construction work • Typing and printing • Communication • Cleaning staff • Meetings
OPERATIONAL REQUIREMENTS
Alterations • Risk assessment • Method statements • Specialized PPE (hard hats, full body protection, dust masks, hand protection, eye and ear protection) • Air exhaust ventilation • Site hoarding and barricading (obscured) complete isolation of activities • Disposal of hazardous waste (fluorescent tubes, receptacles, etc.) • Construction vehicles compliance (driver competence and medical fitness) • Access equipment (ladders, trestle scaffold etc.)

Foundations:

- Risk assessments, safe working procedures and method statement;
- Excavations shoring and bracing >1.5
- Construction vehicles compliance (driver competence and medical fitness)
- Specialized PPE for soil poisoning, handling reinforcements, concrete
- Audit of contractors

Concrete, Formwork and Reinforcements

- Risk assessments, safe working procedures and method statement;
- Formwork designs
- Competent supervision of formwork
- Scaffolding for access in in lift shafts, fire escape stairs, core walls, columns between 3.2m-4mhigh,
- Competent supervision and inspections
- Specialized fall arrest and protection equipment for the heights specified

Masonry:

- Risk assessments, safe working procedures and method statement;
- Scaffolding for access to heights above 2 meters
- Appropriate tools for masonry, stonework and associated cladding
- Material hoist for materials above 2.5metres

Waterproofing:

- Risk assessments, safe working procedures and method statement;
- Access ladders/scaffolding for roofs
- Fall protection plan and protection equipment
- Material Safety Data Sheet

Carpentry and Joinery

- Risk assessments, safe working procedures and method statement;
- Access scaffolding for roof areas for
- Fall protection and fall arrest equipment
- Electrically powered tools (drills, planning, sanding and molding machines)
- Lifting machines and lifting tackle
- Air compressors
- Specialized PPE for adhesives and paints
- Tool pouches/belts for safe handling of portable tools
- Specialized flammable liquid storage cabinets

Ceilings, partitions and access flooring

- Risk assessments, safe working procedures and method statement;
- Access scaffolding for roofs
- Lifting trucks and lifting tackle
- Fall arrest plan and protection equipment
- Tool pouches/belts for safe handling of portable tools

Structural steelwork and metalwork

- Risk assessments, safe working procedures and method statement;
- Access scaffolding for steel trusses for the roofs
- Lifting trucks and lifting tackle
- Fall arrest plan and protection equipment
- Tool pouches/belts for safe handling of portable tools
- Ladders

Plastering

- Risk assessments, safe working procedures and method statement;
- Access scaffolding
- Hand tools
- Ladders
- Fall arrest and protection equipment
- PPE (hand, eyes, etc.)

Tiling

- Risk assessments, safe working procedures and method statement
- Right hand tools and portable electrical tools
- Noise hearing protection
- Dust engineering controls (local exhaust)
- PPE (hand, eyes protection etc.)
- Access equipment for wall tiling

Plumbing

- Risk assessments, safe working procedures and method statement
- Portable electrical tools and hand –tools (sanitary plumbing)
- Access equipment (upper floors)
- PPE-welding
- Excavation safety, barricading and signage
- Welding fumes safety-competent person
- Acetylene gas safety and storage

Glazing

- Risk assessments, safe working procedures and method statement
- Portable Electrical Tools
- PPE (eyes, hands, feet, head etc.)
- Forklift

Paintwork

- Risk assessments, safe working procedures and method statement
- Access equipment
- MSDS for paints
- PPE for painters

General site-works

- Risk assessments, safe working procedures and method statement
- Construction Mobile plant safety
- Waste disposal and receptacles
- Solid Barricade for stripped tarmac and paving
- Tools for tree cutting
- PPE
- Signage, shoring and barricading for open-face excavations (<300mm deep)
- Compressors and pneumatic tools (paving breakers, circular saws, chain saws, sump-pumps)

CALIBRATION, SERVICE AND MAINTENANCE

- Electrical certificate of compliance
- Workmen's compensation
- Fire extinguishers
- Machinery and plant

OPERATIONAL REQUIREMENTS-FACILITIES

- First aid kit/s
- Fire extinguishers
- Emergency alarm
- Alcohol meter
- Toilets (female and male) 1:20
- Changing room/Personal belongings storage facilities
- Showers
- Sheltered eating area
- Accommodation facilities (optional)
- Tools and equipment storage
- Flammable liquid storage
- Non-combustible material store
- Health and safety signage
- Temporary (1 day)-orange net barricade
- Cleansing soap and toilet paper
- Cleaning material and utensils
- General waste bins
- Construction waste receptacle

22 Operational Considerations

22.1 Excavations

A contractor shall ensure that all excavation work is undertaken under supervision of a competent person appointed in writing. The competent person shall establish and evaluate the stability of the ground before excavation commences. Reasonable steps must be taken to ensure that no person is buried or trapped by a fall or dislodgements of material in an excavation;

No person shall be allowed to work in an excavation deeper than 1,5m with a risk of collapse, with vertical walls without first shoring it; where an excavation is shored or braced it should be inspected daily prior to commencement of work, after every blasting operations, after an unexpected fall of ground, after damage to supports and after rain.

No load, material plant or equipment must be placed or moved near the edge of an excavation or where it may cause it to collapse and consequently endanger the safety of any person. The stability of adjoining building, structure or road must be ascertaining to avoid collapse and endangering of safety of persons. Excavations must be provided with safe means of access which may not be further than 6m from any point where any worker is working within the excavation.

The location and nature of services such as electricity, water, gas or other similar services which may be affected by the excavations must be identified. Excavation accessible to the public, adjacent to public roads or thoroughfares, must be protected by barrier or fence of a least one meter in height as well as with illuminants when visibility is poor and any other suitable and sufficient precautionary measure; and

Where excavation involves use of explosives a competent person must be appointed to supervise such activity

22.2 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, the appointed competent person must ensure that all temporary works are carried out under his supervision at all times. All temporary works must be adequately erected, supported, braced and maintained by a competent person so that they can support all vertical and lateral loads imposed on them and that only those loads that the temporary works can withstand are imposed.

All temporary works are done with close reference to the structural design drawings (kept on site at all times) and in consultation with the structural designer. Persons responsible for erection, moving or dismantling temporary works must be provided with adequate training and instruction to perform those operations safely. All equipment used for temporary works must be examined and checked by a competent person before use.

All temporary works must be inspected 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

If after erection of temporary works, it is found damaged or weakened to a degree that its integrity is affected, it must be safely removed or reinforced immediately.

22.3 Temporary use of Flammable Liquids

No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapors being present unless adequate precautions are taken. Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with access control measures in place. Sufficient firefighting equipment is installed, and fire prevention methods practiced. Proper housekeeping may achieve this.

Only one day's quantity of flammable is to be kept in the workplace. Containers (including empty containers) to be kept closed to prevent fumes/vapors from escaping and accumulating in low lying areas. Metal containers to be bonded to earth whilst decanting to prevent build-up of static forces; and

22.4 Portable Electric Tools

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 ampere plug point and is moved around for use in the workplace for example; drills, saws, grindstones, portable lights, etcetera.

The use, inspection and maintenance of portable electrical tools and equipment shall be as follows: Regular inspections must be carried out by a competent person appointed in writing. Inspection results must be recorded in a register. Only competent authorized persons are allowed to use portable electrical tools and equipment.

The correct protective equipment must be worn or used whilst operating portable electrical tools and equipment. This equipment must be maintained in good condition at all times to prevent an electrical shock to the user. The main power source should incorporate an earth leakage protection device or receive power through a double wound transformer or be double insulated and clearly marked as such.

All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

Portable lights: Must be fitted with a robust non-hygroscopic non-conducting handle. Live metal parts which may become live must be protected against contact. The lamp must be protected by a strong guar. The cable lead-in must withstand rough handling. A register be kept for each piece of equipment with findings of regular inspections undertaken to evaluate the condition of these lights. Inspections must be undertaken that concentrate on at least the plug, cord, switch and any obvious faults. When used in wet/damp/metal container conditions, it must be protected.

22.5 Structures

Contractors must ensure that reasonable steps to prevent uncontrollable collapse of any new or existing structure or any part which can become unstable, or in a temporary state of weakness or instability due to carrying out of construction work.

No structure or part for a structure is loaded in a manner which would render it unsafe; and

All drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other contractors, the client and the client's agent or employee.

22.6 Machine Operators

The following requirements will apply to machine operators:

Only certified and/or competent employees may be allowed to operate any machinery. Every lifting machine operator must be trained specifically for the type of lifting machine that he or she is operating.

Operators of Jib cranes with a maximum mass load of 500 kg or more must be in possession of a certificate of training issued by an accredited (by the Department of Labour) training provider.

22.7 Construction Vehicles and Mobile Plant

An audit for construction vehicles and mobile plant will be conducted and inspected by the Client prior to being allowed on a project site and suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the H&S ACT and Regulations.

Construction vehicles and mobile plant must be:

Road worthy and have valid registration documents. Be of acceptable design and construction and maintained in good working order. Be used in accordance with their design and intention for which they were designed. Construction vehicles must be operated and/or driven by trained, competent and authorized operators/drivers.

Construction vehicles must be provided with safe and suitable means of access and fitted with adequate signaling devices to make movement safe including reversing. When operated around excavations and other openings they must be provided with sufficient barriers to prevent construction vehicles and mobile plant from falling. Construction vehicles must be provided with roll-over protection.

Inspections must be performed daily before start-up by the driver, operator and/or user and the findings recorded in a register/log book. Construction vehicles must be fitted with two head and two tail lights that is in good working condition whilst operating under poor visibility conditions. Construction vehicles used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported.

Operators and drivers of construction vehicles and mobile plant must be in possession of a valid medical fitness certificate declaring the operator and/or driver physically and psychologically fit to operate or drive construction vehicles and mobile plant. No loose tools, material etc. is allowed in

the driver and/or operators compartment/cabin nor in the compartment in which any other persons are transported. No person may ride on construction vehicles and mobile plant except for in a safe place designed and provided for this purpose.

The construction site must be organized to facilitate the movement of construction vehicles and mobile plant in such a manner that pedestrians and other vehicles are not obstructed. Construction vehicles and mobile plant left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights, reflectors or barricades to prevent moving traffic from a sudden emergency, or to come into contact with the parked construction vehicles and mobile plant.

In addition construction vehicles and mobile plant left unattended after hours adjacent to a public road or adjacent to a construction areas where work is in progress must have appropriate lights or reflectors and barricades in order to identify the location of the vehicles or plant. All construction vehicles and mobile plants when not in use must be parked with all buckets, booms etc. full lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely. All construction vehicles and mobile plant daily inspection records must be kept in the Health and Safety file.

22.8 Housekeeping

The principal contractor must ensure that:

Housekeeping is continuously implemented and maintained and materials and equipment is properly stored. Scrap, waste and debris is removed regularly. Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to the free-flow of pedestrians and vehicular traffic as well as means of access to and egress from workplaces and passageways.

Waste and debris not to be removed by throwing from heights but by chute or crane. Where practicable, construction sites are fenced off to prevent entry of unauthorized persons. Catch platforms or -nets are erected over entry and exit ways or over places where persons are working to prevent them being struck by falling objects.

An unimpeded work space is maintained for every employee. Every workplace is kept clean, orderly and free of tools and the likes that are not required for the work being done. As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, skid-free and free of obstruction, waste and materials. The walls and roof of every indoor workplace be sound and leak-free.

Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fences, boarded over or provided with protection to prevent persons from falling.

22.9 Stacking and Storage

The principal contractor must ensure that:

A competent person is appointed in writing to supervise all stacking and storage in a construction site. Adequate storage areas must be provided and demarcated, kept neat and under control.

The base of any stack is level and capable of sustaining the weight exerted on it by the stack on upper level. The items in the lower layers must support the weight exerted by the top layers. Cartons and other containers that may become unstable due to wet conditions must be kept dry. Pallets and containers are in good condition and no material is allowed to spill out.

The height of any stack does not exceed 3 times the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector of the Department

of Labour has been obtained to build the stacks higher with the aid of a machine. (The operator of the machine must be protected against items falling from overhead or off the stack and no items may overhang).

The articles that make up a single tier are consistently of the same size, shape and mass.

Structures for supporting stacks must be structurally sound and able to support the mass of the stack. No articles must be removed from the bottom of the stack first but from the top tier first.

Anybody climbing onto a stack can and does do it safely and that the stack is sufficiently stable to support him or her. Stacks that are in danger of collapsing are broken down and restacked. Stability of stacks are not threatened by vehicles or other moving plant and machinery;

Stacks are built in a header and stretcher fashion and that corners are securely bonded. Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations.

22.10 Use Ladders

Use of ladders may also play a role in conjunction with the use of scaffolds. In case of use of ladders the following should be considered:

All ladders must be constructed of sound material and must be suitable for the purpose for which they are used. Ladders must be fitted with a non-skid device at the bottom ends and hooks or similar devices at the upper ends of the stiles and so lashed, held or secured whilst being used as to ensure the stability of the ladder under all conditions and at all times.

In cases where rungs are fasted to stiles by means of nails, screws, spikes or rungs have not being properly led to stiles or welded ladders or ladders whose rungs are bolted or riveted to the stiles or ladders with damaged stiles or damaged and missing rungs: Such Ladders may not be permitted for use on site.

A ladder requiring to lean against an object for support may not be used if it is longer than 9m and no two ladders will be used to provide an extension of length to a ladder. No wooden ladders shall be permitted on site. Care will be taken to ensure that when work is performed from a ladder, articles are prevented from falling off by providing suitable sheaths and receptacles in which hand-tools shall be kept when not used.

22.11 Hazardous Chemical Agents (HCA)

The principal contractor and contractors must provide the necessary training and information as far as the use, transport, and storage of HCA. He will ensure all hazardous chemicals on site have Material Safety Data Sheets (MSDS) and the users are made aware of the hazards and precautions that need to be taken when using the chemicals.

A risk assessment containing the following shall be made available from the Principal contractor:

- The HCA that employees may be exposed to.
- The effects that the HCA can have on the employee.
- Where the HCA may be present and in what physical form.
- The nature of the work and process involved.
- First aiders must be made aware of the MSDS and how to treat HCA incidents accordingly.
- Flammable substances must be stored in a separate area, away from other materials.

22.12 Electrical Installations

The installation of temporary electricity for construction shall be in accordance with Construction Regulation 22 and the Electrical Installation Regulations.

The principal contractor must ensure that:

Existing services are located and marked before construction commences and the markings maintained during construction. Where this is not possible, workers with jackhammers etc. are protected against electric shock by the use of suitable protective equipment e.g. rubber mats, insulated handles etc. Electrical installations and -machinery are sufficiently robust to withstand normal working conditions on site.

Temporary electrical installations must be inspected at least once a week by a competent person and a record of the inspections kept in the Health and Safety file. Electrical machinery used on a construction site must be inspected daily before start-up by the competent driver/operator or any other competent person and a record of the inspections kept in the Health and Safety file. A competent person appointed in writing must control and be responsible for all temporary electrical installations.

An electrical and mechanical lockout procedure must be developed by the principal contractor and submitted to the Client for approval before construction commences. All contractors on site must adhere to this lockout procedure

22.13 Fire Precautions on Construction Sites

The principal contractor must ensure that:

Sources of ignition is obviated wherever flammable or highly combustible material is present in the workplace, for example:

Notices prohibiting smoking is displayed and enforced; welding and flame cutting is only allowed under controlled conditions that includes written hot work permits. Only spark-free hand and power tools are used. No grinding, cutting and shaping of ferrous metals are allowed using electrically driven power tools that produces sparks. Flameproof switches and fittings are to be used in the flammable atmosphere.

Good housekeeping is maintained to prevent the accumulation of unnecessary combustibles. Adequate ventilation is maintained and adequate and suitable fixed and portable fire- fighting equipment are provided and maintained in good working order. The risk of fire is avoided and sufficient and suitable storage of flammables is provided

Maintenance must include: Regular inspections by a competent person appointed in writing and records of such inspections should be kept in the occupational health and safety file. Annual inspection and service by an accredited service provider. All employees are instructed in the use of the firefighting equipment and know how to attempt to extinguish a fire.

A sufficient number of employees are appointed and trained to act as an emergency team to deal with fires and other emergencies. Employees are informed regarding emergency evacuation procedures and escape routes. Emergency escape routes are kept clear at all times and clearly marked. Evacuation assembly points are demarcated and made known to employees. Evacuation and emergency drills practiced to ensure that all persons are vigilance about that. Roll call is held after evacuation to account for all employees and to ensure that no-one including visitors have been left behind. A clearly audible, to all persons on site, siren or alarm is fitted and regularly tested.

22.14 Scaffolding

Scaffold framework: a principal contractor shall ensure that:-

Scaffold standards are properly propped against displacement and secured vertically on firm foundations. Putlog scaffold shall incline slightly towards the structure. Steel scaffold standards with “heavy”, “medium”, “light” or “very light” platform loadings shall not exceed 320,240,160, and 80kg/m² respectively and are spaced 1.8m,2m,2.5m, and 3m apart. Scaffold platforms are not less than 1125mm and not more than 1380mm, not less than 1125mm and not more than 1150mm, not less than 900mm and not more than 1150mm and not less than 675mm and not more than 1150mm, provided that where a platform is used as a gangway a platform width of 450mm shall be sufficient.

No principal contractor shall use a scaffold or permit to use a scaffold unless it is securely braced to ensure stability in all directions and it is secured at suitable vertical and horizontal distances to the structure to which work is being done, unless it is designed to be completely free-standing. A scaffold framework shall have a factor of safety of at least two and be inspected once a week and every time after bad weather by a person who has adequate experience in the erection and maintenance of scaffolds and all findings recorded in a register or report book.

Scaffold Platforms: A principal contractor shall ensure that:

Every plank of a solid wooden scaffold platform is at least 275mm wide and 38mm thick. Every plank which forms part of a scaffold platform is supported at a distance of at least 1.25m and at its ends are projected not less than 70mm and not more than 200mm beyond the last prop. Every plank of a scaffold is firmly secured to prevent its displacement. Every platform is so constructed as to prevent materials and tools from falling through.

Where a scaffold platform is above 2m above ground it shall be provided on all sides except the side facing the structure with:

Substantial guardrails of at least 900mm but not exceeding 1000mm in height. Toe-boards which at least 150mm high from the level of the scaffold platform and so affixed that no open spaces exist between the scaffold platform and the toe-boards (where toe boards are constructed of timber, they shall be 25mm thick). Is not more than 75mm, where workmen need to sit while working the distance may be increased by not more than 300mm; and is kept free of waste, projecting nails or any other obstruction and is kept in a non-slip state.

No employer shall permit that a working platform which is higher than 600mm be supported on a scaffold platform and shall provide an additional guardrail of at least 900mm and not exceeding 1000mm in height above every such working platform. An employer shall ensure that convenient and safe access is provided to every scaffold platform and where the access is a ladder, the ladder shall project at least 900mm beyond the top platform

Suspended Scaffolds: An employer shall ensure that outriggers of each suspended scaffolds are:

Constructed of steel or any other material of similar strength and have a factor of safety of at least four with respect to the load it is to carry. Have an overhang of not more than 1.8m beyond the edge of the structure and are of such length that the counteracting length can be anchored securely, are otherwise that by means of weights at the inner-ends, properly propped, suitably spaced and firmly anchored. Are provided with stop or other effective devices at the outer-end to prevent the displacement of ropes.

An employer shall ensure that the working platform of every suspended scaffold is suspended by: Pulley-blocks, sheaves, winches, or hoists of the correct size of the ropes being used; At least two independent steel wire ropes in the case of a working platform which is not wider than 912mm and at least four independent steel wire ropes in the case of a working platform which is 912mm and wider; and steel wire ropes of which the factor of safety is at least ten with respect to the maximum load which each rope is to carry.

An employer must ensure that the hand or power driven machinery used for the lifting or lowering of the working platform of a suspended scaffold is so constructed and maintained that an uncontrolled movement of the working platform cannot occur. The machinery is so situated that it is

accessible for inspection. The rope connections to the outriggers are vertically above the connections to the working platforms. In the case of a working platform suspended by two ropes only, the connections of the ropes to the working platforms are of such height above the level of the working platform as to ensure the stability of the working platform.

An employer shall ensure that the working platform of every suspended scaffold is at least 456 mm and exceeding 1.8m in width, is suspended as near as possible to the structure to which work is being done and except when light work is being done, is secured at every at every working position to prevent horizontal movement between the working platform and the structure.

The working platform of every suspended scaffold must be on all side be provided by a guardrail of at least 900mm and not exceeding 1000mm in height above the level of the working platform except the side facing the structure. The working suspended by two steel ropes shall be provided with guardrails on all side. Toe boards should be provided for all the sides of at least 150mm high and where the toe boards are constructed of timber it shall be at least 25mm thick.

Trestle scaffolds: No employer shall use trestle scaffold or permit it to be used, unless it is soundly constructed of solid material and all reasonable precautionary measures have been taken to prevent the unexpected spreading of its supporting legs when it is in use.

No employer shall use a trestle scaffold or permit it to be used, if it is higher than 3m or consists of more than two tiers.

22.15 Fall Protection Plan

A principal contractor must designate a competent person to be responsible for the preparation of a fall protection plan, ensure that the fall protection plan 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 must include a risk assessment of all the 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 employee's medical fitness necessary to work at all fall risk position and records thereof as well as a program for employees training. A 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 for a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following an incident.

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. Fall prevention and fall arrest equipment must be 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, securely attached to a structure or plant, and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who could fall **and** fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

Where roof work is being performed, the principal contractor must ensure that the roof work is planned and the roof erectors are competent to carry out the work. No employee is permitted to work on roofs during inclement weather conditions or if any conditions are hazardous to the health and safety of the employee.

All covers to openings and fragile material are of sufficient strength to withstand any imposed loads. Suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or

from fragile material is supported. Suitable and sufficient guardrails, barriers and toe-boards or other similar means of protection prevent as far as is practicable, the fall of any person

22.16 Ramps

An employer shall ensure that every ramp is constructed in accordance with an accepted technical standard and has a safety factor of at least two with respect to the load it is expected to carry. The ramp shall have an inclination to the horizontal level of not more than 34 degrees.

The ramp shall have an inclination which renders additional foothold necessary and have stepping laths to the full extent of the ramp width. A ramp which is higher than 2m and is provided on both sides with substantial guardrails which are at least 900mm and not exceeding 1000mm in height and toe boards which are at least 150mm high and so affixed that no open space exist between the toe-board and the ramp.

22.17 Working in Confined Spaces

The concentration of gas in a confined space must be tested by means of measuring equipment (Gas Monitor) prior to work commence and ventilation should be done for at least 15 minutes by blower to neutralize concentration of gas or any substances. If possible locate the source of any such substances and isolate.

All open manholes must be barricaded and protected at all times. Before signing off the permit the responsible person must confirm that all the employees are accounted for and ensure that all the manholes are properly closed and barricading removed.

Entering a manhole: Person entering the confined space or manhole must wear a safety harness, fully operational gas monitor. A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the manhole.

Depending with the condition on the confined space a rotational work practices must be introduced if and no person shall remain within a confined space or manhole for a longer period. Should the alarm sound on the gas monitor, the employees must exit the confined space or manhole and the immediate area must also be evacuated immediately. The area must be properly ventilated and re-tested before re-entering the confined space or manhole.

Employees must be provided with flame-proof lighting when entering deep manholes or manholes with flammable gases. No hot work, smoking or unprotected electrical apparatus which may cause sparks shall be permitted in any manhole or confined space.

Safety equipment: All teams must be issued with fully functional gas monitoring equipment and safety harnesses and self-rescuers where applicable. All employees must be trained (including refresher training on a continuous basis) in the use thereof.

General records: The following records shall be implemented and maintained by the principal contractor, confined space entry permits, confined space entry registers, and safety harness registers

Training: Training shall be provided by principal to employees before work commence in a confined space. Awareness in terms of that must be discussed frequently with all employees.

22.18 Blasting (No Blasting Work)

The principal contractor must ensure that: Blasting activities are carried out under the supervision of a competent person with at least five years practical experience in blasting who has been appointed in writing. A method statement is developed in accordance with all applicable

explosives legislation, by an appointed person who is competent in the use of explosives. The necessary permits are in place for the transportation of explosives to be used.

Access to the blasting area is strictly restricted. No smoking or hot work is allowed close to explosives or the blasting areas. Reasonable steps are taken to prevent damage to structures in the vicinity of the blasting area. Any other industry required safety measures are considered and implemented specifically taking the construction site's specific requirements into account.

Relevant authorities such as the municipality, Public Works, aviation, and other relevant departments must be informed of the planned blasting. Written authority must be obtained before the blasting takes place.

23. Penalties Clause as per contract(**C.1.2 Contract Data**)

24.0 PENALTY	Amend: In addition to penalties for late or non-completion, the employer shall be entitled to impose a penalty on the contractor for each calendar day for non-compliance with the Occupational Health and Safety Act No. 85 of 1993 (as amended), or any regulations made thereunder, where such non-compliance has been duly recorded by the principal agent or health and safety agent and remains unremedied within the prescribed time. The rate of such penalty shall be as stated below. The imposition of such penalty shall not limit the employer's rights to other remedies, including suspension or termination under the provisions of this agreement Penalty for late or non-completion shall be R28 140.00 per Calander day. Penalty for non-compliance of the Occupational Health and Safety Act No. 85 Of 2014 as determined by the Principal Agent shall be R42 210.00 per Calander day.
----------------------------	--

Acknowledgement:

I, _____ representing

_____ Contractor have satisfied myself with the content of the Project HSE Specification for the construction of **THATHEZAKHE SPECIAL SCHOOL** and shall ensure that the we will comply with all relevant obligations in respect thereof.

Signature of Contractor

Date

Signature of Agent

Date

Comments: