



public works  
& infrastructure

Department:  
Public Works and Infrastructure  
REPUBLIC OF SOUTH AFRICA

**DEPARTMENT OF PUBLIC WORKS  
&  
INFRASTRUCTURE**

**HIV/AIDS**

**SPECIFICATION**

**CAPE TOWN: MODERNIZATION, REPAIRS AND  
MAINTENANCE OF LIFTS IN THE WESTERN CAPE**

## **SECTION**

### **HIV/AIDS SPECIFICATION**

#### **HIV/AIDS REQUIREMENTS**

##### **1 SCOPE**

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counselling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers;
- Informing Workers of their rights with regard to HIV/AIDS in the workplace;
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices.

##### **2 DEFINITIONS AND ABBREVIATIONS**

###### **2.1 Definitions**

Service Provider: The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programs.

Service Provider Workshop Plan: A plan outlining the content, process and schedule of the training and education workshops, presented by a Service Provider which has been approved by the Representative/Agent.

Worker: Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractors, who is on site for a minimum period of 30 days in all.

###### **2.2 Abbreviations**

HIV	:	Human Immunodeficiency Virus.
AIDS	:	Acquired Immune Deficiency Syndrome.
STI	:	Sexually Transmitted Infection.

##### **3 BASIC METHOD REQUIREMENT**

3.1 The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers.

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regard to HIV/AIDS awareness.

The Service Provider Workshop Plan shall be based on the following information provided by the Contractor:

- Number of Workers and Sub-contractors on site;
- When new Workers or Sub-contractors will join the construction project;
- Duration of Workers and Sub-contractors on site;
- How the maximum number of Workers can be targeted with workshops;
- How the Contractor prefers workshops to be scheduled, e.g. three hourly sessions per Worker, or one 2.5 hour workshop per Worker;
- Profile of Workers, including educational level, age and gender (if available);
- Preferred time of day or month to conduct workshops;
- A Gantt chart reflecting the construction programme, for scheduling of workshops;
- Suitable venues for workshops.

The Contractor shall submit the Service Provider Workshop Plan for approval within 21 days after the tender acceptance date. After approval by the Representative/Agent, the Contractor shall make available a suitable venue that will be conducive to education and training.

3.2 The Service Provider Workshop Plan shall address, but will not be limited to the following:

- 3.2.1 The nature of the disease;
- 3.2.2 How it is transmitted;
- 3.2.3 Safe sexual behaviour;
- 3.2.4 Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- 3.2.5 Attitudes towards other people with HIV/AIDS;
- 3.2.6 Rights of the Worker in the workplace;
- 3.2.7 How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially;
- 3.2.8 How the Service Provider will support the Awareness Champion;
- 3.2.9 Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- 3.2.10 How the workshops will be presented, including frequency and duration;
- 3.2.11 How the workshops will fit in with the construction programme;
- 3.2.12 How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- 3.2.13 How the video will be used;
- 3.2.14 How the Service Provider will elicit maximum participation from the Workers;
- 3.2.15 A questions and answers slot (interactive session).

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated.

#### **4 HIV/AIDS AWARENESS EDUCATION AND TRAINING**

##### **4.1 Workshops**

The Contractor shall ensure that all Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Public Works, is to be screened to Workers at workshops. In order to enhance the

learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

## **4.2 Recommended practice**

### **4.2.1 Workshop Schedule**

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan.

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing opportunity between workshop sessions for Workers to reflect and test information. Workers will also have an opportunity to ask questions at a following session.

### **4.2.2 Service Providers**

A database of recommended Service Providers is available from all Regional Offices of the Department of Public Works.

### **4.2.3 HIV/AIDS Specific Learning Outcomes and Assessment Criteria**

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours. In order to set a minimum standard requirement, the following specific learning outcomes and assessment criteria shall be met.

#### **4.2.3.1 UNIT 1: The nature of HIV/AIDS**

After studying and understanding this unit, the Worker will be able to differentiate between HIV and AIDS and comprehend whether or not it is curable. The Worker will also be able to explain how the HI virus operates once a person is infected and identify the symptoms associated with the progression of HIV/AIDS.

Assessment Criteria:

1. Define and describe HIV and AIDS;
2. List and describe the progression of HIV/AIDS.

#### **4.2.3.2 UNIT 2: Transmission of the HI virus**

After studying and understanding this unit, the Worker will be able to identify bodily fluids that carry the HI virus. The Worker will be able to recognise how HIV/AIDS is transmitted and how it is not transmitted.

Assessment Criteria:

1. Record in what bodily fluids the HI virus can be found;
2. Describe how HIV/AIDS can be transmitted;
3. Demonstrate the ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS.

#### **4.2.3.3 UNIT 3: HIV/AIDS preventative measures**

After studying and understanding this unit, the Worker will comprehend how to act in a way that would minimise the risk of HIV/AIDS infection and to use measures to prevent the HI virus from entering the bloodstream.

## Assessment Criteria:

1. Report on how to minimise the risk of HIV/AIDS infection;
2. Report on precautions that can be taken to prevent HIV/AIDS infection;
3. Explain or demonstrate how to use a male and female condom;
4. List the factors that could jeopardize the safety of condoms provided against HIV/AIDS Transmission.

4.2.3.4 UNIT 4: Voluntary HIV/AIDS counselling and testing

After studying and understanding this unit, the Worker will be able to recognise methods of testing for HIV/AIDS infection. The Worker will be able to understand the purpose of voluntary HIV/AIDS testing and pre- and post-test counseling.

## Assessment Criteria:

1. Describe methods of testing for HIV/AIDS infection;
2. Report on why voluntary testing is important;
3. Report on why pre- and post-test counselling is important.

4.2.3.5 UNIT 5: Living with HIV/AIDS

After studying and understanding this unit, the Worker will be able to recognise the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS.

## Assessment Criteria:

1. List and describe ways to manage HIV/AIDS;
2. Describe nutritional needs of people living with HIV/AIDS;
3. Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS;
4. Explain the need for counselling and support to people living with HIV/AIDS.

4.2.3.6 UNIT 6: Treatment options for people with HIV/AIDS

After studying and understanding this unit, the Worker will be familiar with the various treatments available to HIV/AIDS infected or potentially HIV/AIDS infected people.

## Assessment Criteria:

1. Discuss anti-retroviral therapy;
2. List methods of treatment to prevent HIV/AIDS transmission from mother-to-child;
3. Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS;
4. Describe post exposure prophylactics.

4.2.3.7 UNIT 7: The rights and responsibilities of Workers in the workplace with regard to HIV/AIDS

After studying and understanding this unit, the Worker will be able to identify the rights and responsibilities of the Worker living with HIV/AIDS in the workplace. The Worker will recognise the importance of accepting colleagues living with HIV/AIDS and treating them in a non-discriminative way.

## Assessment Criteria:

1. Discuss the rights of a person living with HIV/AIDS in the workplace;
2. Discuss the responsibilities of a person living with HIV/AIDS in the workplace;
3. Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important.

#### **4.3 Displaying of plastic laminated posters and distribution of information booklets**

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets. The contractor should include the costs of posters and information booklets in his/her tender price.

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's.

Posters or display stands shall be displayed on site as soon as possible, but not later than 14 days after the date of site handover.

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.

The posters on display must always be intact, clear and readable.

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site.

#### **5 PROVIDING WORKERS WITH ACCESS TO CONDOMS**

The Contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SABS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health.

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be made available on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary, to ensure that condoms are available within 14 days of site handover.

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

#### **6 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)**

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

#### **7 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION**

- 7.1 Within 14 days of site handover the Contractor shall appoint an Awareness Champion from amongst the Workers, who speaks, reads and writes English, who speaks and understands all the local languages spoken by the Workers and who shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner.

7.2 The Awareness Champion shall be responsible for:

- 7.2.1 Liaising with the Service Provider on organising awareness workshops;
- 7.2.2 Filling condom dispensers and monitoring condom distribution;
- 7.2.3 Handing out information booklets;
- 7.2.4 Placing and maintaining posters.

## **8 MONITORING**

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract.

The Contractor must report problems experienced in implementing the HIV/AIDS requirements to the Representative/Agent.

The attached SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent.

The attached SERVICE PROVIDER REPORT (SCHEDULE B) shall be completed and submitted on a monthly basis to the Department's Project Manager, through the Representative/Agent.

The attached CONTRACTOR HIV/AIDS PROGRAMME REPORT (SCHEDULE C), a close out programme report, shall be completed by the Contractor at the end of the contract.

## SCHEDULE A

### HIV/AIDS PROGRAMME: SITE CHECKLIST

When did construction commence: \_\_\_\_\_

Name of Departmental Project Manager: \_\_\_\_\_

Please refer to HIV/AIDS Programme activities during the reporting period

DATE	PI							PI							PI							PI										
	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
Programme implemented within 14 days of site handover																																
Awareness champion on site																																
HIV/AIDS awareness service provider report																																
Male condom dispenser																																
Sufficient male condoms available																																
Male condom dispenser in a highly trafficked area																																
Female condom dispenser																																
Sufficient female condoms available																																
Female condom dispenser in a highly trafficked area																																
All four types of posters displayed																																
Posters in a good condition																																
Posters in a highly trafficked area																																
Posters displayed on local support services: clinic & VCT centre																																
Support service poster/s in highly trafficked area																																
Support service poster/s in a good condition																																

*Tick the block if Contractor satisfactorily complied with specifications*



<i>Please indicate the applicable number for the reporting period</i>	
Workers on payroll (at PI)	
Sub-Contractors who will be on site for longer than 30 days (at PI)	
Workshop attendees	
Number of workshops held	
Scheduled workshops according to approved workshop plan	
Booklets distributed	
Male condoms distributed	
Female condoms distributed	

Representative/Agent \_\_\_\_\_ Date \_\_\_\_\_

Contractor \_\_\_\_\_ Date \_\_\_\_\_

Date of progress inspection: (ccyy/mm/dd)

Reporting period: (ccyy/mm/dd) \_\_\_\_\_ to (ccyy/mm/dd) \_\_\_\_\_

Deviations from HIV/AIDS awareness programme plan:

Corrective actions:

\_\_\_\_\_  
Representative/Agent

\_\_\_\_\_  
Departmental Project Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

## SCHEDULE B

### HIV/AIDS AWARENESS PROGRAMME: SERVICE PROVIDER REPORT

Reporting period: (ccyy/mm/dd) \_\_\_\_\_ to (ccyy/mm/dd) \_\_\_\_\_

Number of workshops conducted in reporting period: \_\_\_\_\_

Number of scheduled workshops according to approved workshop plan: \_\_\_\_\_

Deviations from workshop plan:

State reasons for deviating from workshop plan:

Corrective actions:

Service Provider \_\_\_\_\_

\_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

**HIV/AIDS AWARENESS PROGRAMME : WORKSHOP CONTENT ADDRESSED**

*Fill in the applicable information with regard to each workshop conducted*

DATE	W/S			W/S			W/S			W/S			W/S					
	D	M	M	D	M	M	D	M	M	D	M	M	D	M	M	D	M	M
Content of workshop: (Mark the content included)																		
SLO1																		
SLO2																		
SLO3																		
SLO4																		
SLO5																		
SLO6																		
SLO7																		
HIV/AIDS in construction video																		
Indicate the duration of the workshop in hours																		
Total number of Workers																		
Indicate workshop venue																		



## SCHEDULE C

### CONTRACTOR HIV/AIDS PROGRAMME REPORT

Project name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Contract value of project: R\_\_\_\_\_

Department of Public Works Project Manager: \_\_\_\_\_

HIV/AIDS Programme duration: (ccyy/mm/dd)\_\_\_\_\_ to (ccyy/mm/dd) \_\_\_\_\_

#### AWARENESS MATERIAL

Describe location of posters displayed during the programme: \_\_\_\_\_

\_\_\_\_\_

Comments on posters: \_\_\_\_\_

Indicate total number of booklets distributed: \_\_\_\_\_

Comments on booklets: \_\_\_\_\_

\_\_\_\_\_

#### CONDOMS

Indicate total number of male condoms distributed: \_\_\_\_\_

Indicate total number of female condoms distributed: \_\_\_\_\_

Describe where male condom dispenser was placed: \_\_\_\_\_

Describe where female condom dispenser was placed: \_\_\_\_\_

#### HIV/AIDS WORKSHOPS

Indicate the total number of HIV/AIDS workshops conducted: \_\_\_\_\_

Indicate the duration of workshops: \_\_\_\_\_

Indicate the total number of Workers that participated in the HIV/AIDS workshops: \_\_\_\_\_

Indicate the total number of Workers that were exposed to the video on HIV/AIDS in the Construction Industry:

\_\_\_\_\_

Comments on HIV/AIDS workshops on site: \_\_\_\_\_

\_\_\_\_\_

**GENERAL**

Briefly describe programme activities and satisfaction with outcome: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Additional comments, suggestions or needs with regard to the HIV/AIDS awareness programmes on site:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please indicate if your company has a formal HIV/AIDS policy focusing on HIV/AIDS awareness raising and care and support of HIV/AIDS Workers:

Yes	No	Currently developing one
-----	----	--------------------------

Please indicate if, to your knowledge, you have lost any workers during the duration of the project to HIV/AIDS related sicknesses. One or more of the following might indicate an HIV/AIDS related death:

Excessive weight loss  
 Reactive TB  
 Hair loss  
 Severe tiredness

Coughing or chest pain when swallowing  
 Persistent fever  
 Diarrhea

Vomiting  
 Meningitis  
 Memory loss  
 Pneumonia

Number of HIV/AIDS-related deaths: \_\_\_\_\_

\_\_\_\_\_  
**Contractor**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Departmental Project Manager**

\_\_\_\_\_  
**Date**



public works

Department:  
Public Works  
REPUBLIC OF SOUTH AFRICA

# **OCCUPATIONAL HEALTH AND SAFETY**

**IN**

**CONSTRUCTION PROJECTS, REPAIRS,**

**RENOVATIONS & MAINTENANCE**

**MANAGED BY**

**THE DEPARTMENT OF  
PUBLIC WORKS**



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## **1. PREAMBLE**

In terms of Construction Regulation 4(1)(a) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and 5(1) construction regulation of 2014, the Department of Public Works, as the Client and/or its Agent on its behalf, 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 the Client and/or its Agent on its behalf with the same.

The Client's further duties are as described in The Act and the Regulations made thereunder. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 5 as well as the Health and Safety Plan for the project.

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

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

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

The Department of Public Works is tasked to provide accommodation and operational facilities to a very large proportion of the approximate 35 National Departments responsible for the governance of the Department of Public Works. A very large number of State employees and public users of the facilities and the services provided there-in directly interacts with the facilities provided by the well-being, health and safety of a great number of people. This Department thus has directly or indirectly, an impact on the Republic of South Africa as well as the National Parliament.

In this a high premium is to be placed on the health and safety of the most valuable assets of the Department of Public Works. These are its personnel, the personnel of its Clients and the physical assets of which it is the custodian and may also include the public as well. The responsibilities the Department and relevant stakeholders have toward its employees and other people present in the facilities or on the sites are captured further in this specification document. These responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

Every effort has been made to ensure that this 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 Agent and/or Client.

## **2. SCOPE OF HEALTH AND SAFETY SPECIFICATION DOCUMENT**

These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

## **3. PURPOSE**

The Department is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.

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

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

To serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 6,7 and 8 of the construction regulation (2014).

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations promulgated on 07 February 2014.

#### **4. DEFINITIONS - The most important definitions in the Act and Regulations pertaining to this specification document are hereby extracted.**

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

**“Health & Safety Specification”** – means a document that includes information required under the construction regulation and obtained from the clients & designers during the early planning & design stage for a specific project on a specific site for use by the contractors when preparing their tenders or bids to clients.

**“Health & Safety Plan”** – means a document which is site specific and includes all identified hazards, safe work procedures to mitigate, reduce & control the hazards identified in a project.;

**“Agent”** – means any person who acts as a representative for a client;

**“Client”** – means any person for whom construction work is performed;

**“ Construction Health & Safety Agent (SACPCMP)”** – The person or entity appointed by the client through the Agent and who has a full authority and obligation to act on the clients behalf in terms of the construction regulations;

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

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

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

**“Contract Amount”** Financial value of the contract at the time of the award of the contract, exclusive of all allowance and any value added tax or sales tax which the law requires the employer to pay to the contractor.

**“Practical Completion Certificates”** A certificates issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding.

**“Accident”** – means unplanned occurrence that happens due to the unsafe condition and may cause injury to a person, damage to the property, material, plant, equipment and the environment;

**“Hazard”** – means anything including work activities and practices with the potential to cause harm;

**“Risk”** – means the likelihood that harm will occur and the subsequent consequences.

**“Risk assessment”** – means a process to determine any risk associated with any hazard at a construction site in order to identify the steps needed to be taken to mitigate, reduce or control such hazards.

**Health and Safety File”** – means a file, or other record in permanent form, containing the information required a contemplated in the regulations;

## **5. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT**

### **5.1 Structure and Organization of OH&S Responsibilities**

#### **5.1.1. Overall Supervision and Responsibility for OH&S**

- a) The Client and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 4(1)(c), implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.
- b) The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act. The pro forma Legal Compliance Audit may be used for this purpose by the Principal Contractor or his/her appointed contractor.
- c) All OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made

available to the principal Contractor to become part of site records (Health & Safety File).

- d) The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 6 to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- e) All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.



### 5.12 Required appointments as per the Construction Regulations:-

Item	Regulation	Appointment	Responsible Person
1.	3.	Application Construction work permit	Client
2.	5(1)(k)	Principal contractor for each phase or project	Client
3.	5(6)	Construction Health & Safety Agent	Client
4.	7.(1)(c)	Contractor	Principal Contractor
5.	7(3)	Contractor	Contractor
6.	8(1)	Construction manager	Contractor
7.	8(2)	Assistance Construction manager	Contractor
8.	6(1)	Construction supervisor	Contractor
9.	6(2)	Construction supervisor sub-ordinates	Contractor
10.	8(5)	Construction Safety Officer	Contractor
11.	8(8)	Responsible employee	
12.	9(1)	Person to carry out risk assessment	Contractor
13.	10(1)	Fall protection planner	Contractor
14.	12(1)	Temporal work designer	
15.	12(2)	Supervisor of temporal work operation	
16.	13(1)	Excavation supervisor	Contractor
17.	13(2)(k)	Competent person in the use of explosive for excavations	Contractor
18.	14(11)	Explosives expert	Contractor
19.	14(1)	Supervisor demolition work	Contractor
20.	14(2)	Scaffold supervisor	Contractor
21.	16(1)	Suspended platform supervisor	Contractor
22.	18(1)a	Rope access	Contractor
23.	19(8)(a)	Material hoist inspector	Contractor
24.	20(1)	Bulk mixing plant supervisor	Contractor
25.	21(2)	Explosive actuated fastening device inspector	Contractor
26.	21(2)(g)	Explosive actuated fastening device cartridge, nails and studs: issuer & collector	Contractor
27.	23 (1)	Operator : construction vehicle and mobile plant	Contractor
28.	28 (a)	Stacking and storage supervisor	Contractor
29.	29 (h)	Fire equipment inspector	Contractor

## **5.2 *Communication, Participation & Consultation***

- 5.2.1 Occupational Health & Safety matters/issues shall be communicated between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the H&S Committee or other means determined by the client.
- 5.2.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.
- 5.2.3 Consultation with the workforce on OH&S matters will be through their Supervisors and H&S Representatives ('SHE – Reps')
- 5.2.4 The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

## **6. INTERPRETATION**

- a) The Occupational Health and Safety Act and all its Regulations, with the exception of the Construction Regulations, distinguish between the roles, responsibilities and functions of employers and employees respectively. It views consultants and contractors as employees of the "owner" of a construction or operational project, the "owner" being regarded as the employer.
- b) (The position taken by the Construction Regulations is that the "owner", in terms of its instructions, operates (has to operate) in the role of client as per relevant definition. The contractors working for the "client" are seen to be in two categories, i.e. the Principal Contractor and Contractors.

- c) The Principal Contractor has to take full responsibility for the health and safety on the site of the relevant project / contract. This includes monitoring health and safety conditions and overseeing administrative measures required by the Construction Regulations from all contractors on the project site.

## **7. RESPONSIBILITIES**

### **7.1 Client**

- a) The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations.
- b) The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.
- c) The Client or his appointed Agent on his behalf will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.
- d) The Client or his appointed Agent on his behalf, will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:
- have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
  - have failed to implement or maintain their health and safety plan;
  - have executed construction work which is not in accordance with their health and safety plan; or

- act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

## 7.2 **Principal Contractor**

- a) The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction. Annexure 2 of this construction regulation contains a “Notification of Construction Work” form. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.
- b) The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation.
- c) The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.
- d) The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- e) The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.
- f) The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety

requirements, the Act and Construction Regulations. (Note: This shall have to be contained in the conditions of tender upon which a tenderer's offer is based.)

- g) The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- h) The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.
- i) The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.
- j) The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.
- k) The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

### **7.3 Contractor**

The contractor must demonstrate to the Principal Contractor that he has the Necessary competencies and resources to perform the construction work safely.

### **7.4 Responsibilities of Construction Health & Safety Agent (SACPCMP)**

The construction Health & Safety Agent act as a link between the client, Principal Contractor and the project team members with respect to health & Safety, They are Required to ensure that the client carry out its H&S responsibilities in terms of Legislation as well as to co-ordinate and ensure good H&S practices are maintained Throughout the duration of the project. In many cases this role starts from project Initiation to project close-out.

- a) H&S competence: In the event that the client is unable to satisfy the requirements of the Construction Regulations for whatever reasons, the construction H&S agent may be appointed to perform these functions on behalf of the client. Given the need to appoint a registered construction H&S agent that is competent and adequately resourced with respect to H&S matters.
- b) H&S goals: It is important that the construction H&S agents demonstrate clearly to clients how they are going to contribute to the achievement of any client H&S goals and objectives. They should also set their own H&S goals.
- c) H&S responsibilities: Prior to accepting the H&S agent appointment from clients, H&S agents need to ensure that they brief clients fully on the client's particular responsibilities in terms of the OH&SA of 1993 and Construction Regulations as amended from time to time. In the absence of acceptance by clients of these responsibilities, H&S agents will not be able to adequately meet their own H&S responsibilities and duties.
- d) H&S information: H&S agents must provide the designer or design team with all H&S information to enable them to conduct a design HIRA to identify the significant hazards that need to be included in the H&S specification. This information may be gathered from multiple sources such as, for example, discussion with the client, previous historical use of the site or facility, previous surveys and investigations and past H&S files.

## **8. SCOPE OF WORK**

These specifications are applicable to the specific scope of work pertaining to the above-mentioned project as detailed in the tender documents, this amongst all includes for example:

- a) Construction, erecting, alteration, renovations, refurbishment, repairs, demolishing or dismantling of building and structures.
  - Site clearance
  - Site hoarding, demarcation and demolition works
  - excavations, filling, compaction, evening surface
  - Piling (by drilling, excavating,)
  - Temporal works
- b) Construction, erecting, alteration, renovations, refurbishment, repairs, demolishing or dismantling of any bridge, dam, canal, road, railway, runaway, sewer, or water reticulation system or any civil engineering structure or type of work
- c) Construction of a new two storied Administration building.
  - Preparation of site by leveling, compaction etc.
  - Excavations for parking areas/services

## **9. PREPARING A HEALTH & SAFETY PLAN**

- (a) The level of detail required for a H&S plan will depend on how complex the workplace is (in particular, the number of contractors at the workplace at any one time) and the risks involved in the work. The plan must be easily accessible in a construction site and it must be clearly understood by management, supervisors & workers on construction site.
- (b) The plan must be implemented, maintained and kept up to date during the construction of the project.
- (c) The principal contractor should prepare a H&S plan that includes
  - project information;
  - client requirements for H&S management on the project;
  - Environmental restrictions and existing on-site risks arrangements, imposed

by others or developed by the principal contractor, to control significant site H&S risks; H&S file & project H&S review.

(d) The H&S plan should include the following information:

- details of the client, that is the person commissioning the construction work, for example their name, representative and contact details; details of the principal contractor;
- details of the construction project, for example address of the workplace, anticipated start and end date and a brief description of the type of construction work that the H&S plan will cover;
- details on how subcontractors will be managed and monitored, including how the principal contractor intends to implement and ensure compliance with the H&S plan such as checking on the performance of subcontractors and how non-compliance will be handled; and
- details on how the risks associated with falls, falling objects, moving plant, electrical work and all high risk construction work that will take place on a construction project will be managed.

(e) The H&S plan should also include information on:

- the provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;
- the safe use and storage of plant;
- the development of a construction project traffic management plan;
- obtaining and providing essential services information – electrical, gas, telecom, water and similar services;
- workplace security and public safety; and
- ensuring workers have appropriate licences and training to undertake the construction work.

(f) The H&S plan must contain:

- a general description of the type of work activities involved in the project and not just a description of the facility to be constructed;
- the project program or schedule details, including start and finish dates, showing principal activities;
- details of client, design team, principal contractor, subcontractors, and major suppliers; and
- extent and location of relevant existing records, surveys, site investigation and geotechnical reports, 'as-built' plans, H&S files.

## **10. HEALTH AND SAFETY FILE**



- a) The H&S file is a document prepared by the principal contractor containing important project H&S information for use by the owner of the completed structure after construction has been completed.
- b) The principal contractor is responsible for producing an H&S file. It contains important project H&S information for use by the owner of the completed structure after construction has been completed. It is essential that the process of compiling the file commences as early as possible to ensure sufficient time to gather the required information.
- c) The Principal Contractor must, in terms of Construction Regulation 7(7), keep a Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done. A more detailed list of documents and other legal requirements that must be kept in the Health & Safety File.
- d) The contractor must ensure that the client's format and layout of the H&S file is adhered to. The contractor must identify the responsible person that will prepare the H&S file and who will be responsible for the drafting of as-built drawings. The contractor must establish procedures:
- e) The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

## **11. OH&S GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEWING OH&S PERFORMANCE**

The Principal Contractor is required to maintain an acceptable disabling incident frequency rate (DIFR) and report on this to the Client and/or its Agent on its behalf on a monthly basis.

### **11.1 IDENTIFICATION OF HAZARDS AND DEVELOPMENT OF RISK ASSESSMENTS, STANDARD WORKING PROCEDURES (SWP) AND METHOD STATEMENTS**

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project.

The identification of hazards is over and above the hazards identification programme and those hazards identified during the drafting of the Health and Safety Plan.

#### **11.1.1 Monthly Audit by Client and/or its Agent.**

The Client and/or its Agent on its behalf will be conducting Periodic Audits at times agreed with the Principal Contractor Audit to comply with Construction Regulation 4(1)(d) to ensure that the principal Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan.

- a) A representative of the Principal Contractor and the relevant Health and Safety Representative(s) (SHE-Reps) must accompany the Client and/or its Agent on its behalf on all Audits and Inspections and may conduct their own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Client and/or its Agent on its behalf may require to be handed a copy of the minutes of the previous Health and Safety Committee meeting reflecting possible recommendations made by that committee to the Employer for reference purposes.

#### **11.1.2 Health & Safety incident/accident reporting & investigations**

- a) The Principal Contractor shall report all incidents where an employee is injured on duty to the extent that he/she:
  - i. dies
  - ii. becomes unconscious
  - iii. loses a limb or part of a limb
  - iv. is injured or becomes ill to such a degree that he/she is likely either to die or to 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

OR where:

- i. a major incident occurred
  - ii. the health or safety of any person was endangered
  - iii. where a dangerous substance was spilled
  - iv. the uncontrolled release of any substance under pressure took place
  - v. machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
  - vi. Machinery ran out of control, to the Provincial Director of the Department of Labour within seven days and at the same time to the Client and/or its Agent on its behalf.
- b) The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations.
- c) The Principal Contractor is required to provide the Client and/or its Agent on its behalf with a monthly "SHE Risk Management Report".
- d) The Principal Contractor is required to provide a.s.a.p. the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports.
- The Principal Contractor is responsible to oversee the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to receive first aid or be referred for medical treatment by a doctor, hospital or clinic. (General Administrative Regulation 9)
- (e) The results of the investigation to be entered into the Accident/Incident Register listed above. (General Administrative Regulation 9)

- (f) The Principal Contractor is responsible for the investigation of all non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar incidents in future.
- (g) The Principal Contractor is responsible for the investigation of all accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.
- (h) Notwithstanding the requirements of Section 24 of the Act, ALL incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.
- Determine the underlying H&S deficiencies and other contributory factors
  - Identification of corrective/preventative actions and continual improvement
  - Communicating the outcome/results and documenting the events of the investigation.
- (i) **Reporting Of Near-Misses**
- Department of Public Works views the reporting of near misses as a critical component in creating a positive health and safety awareness culture on site.
  - Department of Public Works retains the right to enforce the reporting of near misses within 24 hours of occurrence.

## 12. Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and Standard Work Processes at each Production Planning and Progress Report meeting as the construction work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client and/or its Agent on its behalf, other Contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in the above paragraph.

## **12.1 Site Rules and other Restrictions**

### **a) *Site OH&S Rules***

The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the Health and Safety Plan and associated aspects of the construction. When required for a site by law, visitors and non-employees upon entering the site shall be issued with the proper Personal Protective Equipment (PPE) as and when necessary.

### **b) *Security Arrangements***

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees shall at all times be provided with fulltime supervision while on site. The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period.

If not already tasked to the H&S Officer appointed in terms of Construction Regulation, the Principal Contractor must appoint a competent person who must develop contingency plans for any emergency that may arise on site as indicated by the risk assessments.

### **12.1.1 Appointment of Health & Safety Representatives**

#### **a) *H&S Representatives('SHE – Reps')***

Where the Principal Contractor employs more than 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one H&S Representatives for every 50 employees or part thereof. (Section 17 of the Act and General Administrative Regulation 6. & 7.)

H&S Representatives must be appointed in writing and the designation shall be in accordance with the Collective Agreement as concluded between the parties as is required in terms of General Administration Regulation 6.

#### **12.1.2 Duties and Functions of the H&S Representatives**

- The Principal Contractor must ensure that the designated H&S Representatives conduct at least a weekly inspection of their respective areas of responsibility using a checklist developed by a Principal Contractor.
- The report must be consolidated and submitted to the Health & Safety Committee.
- H&S Representatives must form part of the incident/accident investigating team.

#### **12.1.3 Establishment of H&S Committee(s)**

- The Principal Contractor must establish H&S Committees consisting of designated H&S Representatives together with a number of Employers Representatives appointed as per Section 19(3) that are not allowed to exceed the number of H&S Representatives on the committee.
- The persons nominated by the employer on a H&S Committee must be designated in writing for such period as may be determined by him. The H&S Committee shall co-opt advisory (temporary) members and determine the procedures of the meetings including the chairmanship.
- The H&S Committee must meet minimum monthly and consider, at least, an agreed Agenda for the first meeting. Thereafter the H&S Committee shall determine its own procedures.

#### **12.1.4 Training & Awareness**

The contents and syllabi of all training required by the Act and Regulations including any other related or relevant training as required must be included in the Principal Contractor's Health and Safety Plan and Health and Safety File.

**a) *Training & Induction***

All employees performing work or task on site that potentially impact on H&S must be competent & have the necessary appropriate education, training & experience.

All the training must be closely aligned with the risk profile of the project; procedures must be put in place to ensure that all workers are aware of the consequences of their work activities & benefits of improved H&S performance.

All employees of the Principal and other Contractors must be in possession of proof of General Induction training

**b) *Site Specific Induction Training***

All employees of the Principal and other Contractors must be in possession of Site Specific Occupational Health and Safety Induction or other qualifying training.

**c) *Other Training***

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training.

**13. PROJECT/SITE SPECIFIC REQUIREMENTS**

The following is a list of specific activities and considerations that have been identified for the project and site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- a) Clearing & grubbing the area/site
- b) Site establishment
- c) Dealing with existing structures
- d) Location of existing services
- e) Boundary & Access control/Public liability exposures
- f) Protection against heat exhaustion, dehydration, wet & cold conditions
- g) Dealing with HIV & aids other related diseases
- h) Use of portable electrical & explosive tools
- i) Any Excavation work
- j) Any welding work
- k) Loading & offloading of trucks
- l) Driving & operations of Construction vehicles & mobile plant
- m) Temporal works and
- n) Construction work as defined in the construction regulation 2014



**14. OUTLINED DATA, REFERENCES AND INFORMATION ON CERTAIN AND/OR SPECIFIC OBLIGATORY REQUIREMENTS TO ENSURE COMPLIANCE**

**Administrative & Legal Requirements**

<b>OHS Act Section/ Regulation</b>	<b>Subject</b>	<b>Requirements</b>
Construction. Regulation	Notice of carrying out Construction work	<ul style="list-style-type: none"> <li>• Department of Labour notified</li> <li>• Copy of Notice available on Site</li> </ul>
General Admin. Regulation 4	Copy of OH&S Act (Act 85 of 1993)	<ul style="list-style-type: none"> <li>• Updated copy of Act &amp; Regulations on site.</li> <li>• Readily available for perusal by employees.</li> </ul>
COID Act Section 80	Registration with Compensation Insurer.	<ul style="list-style-type: none"> <li>• Written proof of registration/Letter of good standing available on Site</li> </ul>
Construction. Regulation 4 & 5(1)	H&S Specification & Programme	<ul style="list-style-type: none"> <li>• H&amp;S Spec received from Client and/or its Agent on its behalf</li> <li>• OH&amp;S programme developed &amp; Updated regularly</li> </ul>
Section 8(2)(d) Construction. Regulation 7	Hazard Identification & Risk Assessment	<ul style="list-style-type: none"> <li>• Hazard Identification carried out/Recorded</li> <li>• Risk Assessment and – Plan drawn up/Updated</li> <li>• RA Plan available on Site</li> <li>• Employees/Sub-Contractors informed/trained</li> </ul>
Section 16(2)	Assigned duties (Managers)	<ul style="list-style-type: none"> <li>• Responsibility of complying with the OH&amp;S Act assigned to other person/s by CEO.</li> </ul>
Construction. Regulation 6(1)	Designation of Person Responsible on Site	<ul style="list-style-type: none"> <li>• Competent person appointed in writing as Construction Supervisor with job description</li> </ul>
Construction. Regulation 6(2)	Designation of Assistant for above	<ul style="list-style-type: none"> <li>• Competent person appointed in writing as Assistant Construction Supervisor with job description</li> </ul>
Section 17 & 18 General Administrative Regulations 6 & 7	Designation of Health & Safety Representatives	<ul style="list-style-type: none"> <li>• More than 20 employees - one H&amp;S Representative, one additional H&amp;S Rep. for each 50 employees or part thereof.</li> <li>• Designation in writing, period and area of responsibility specified in terms of GAR 6 &amp; 7</li> <li>• Meaningful H&amp;S Rep. reports.</li> <li>• Reports actioned by Management.</li> </ul>

Section 19 & 20 General Administrative Regulations 5	<b>Health &amp; Safety Committee/s</b>	<ul style="list-style-type: none"> <li>H&amp;S Committee/s established.</li> <li>All H&amp;S Reps shall be members of H&amp;S Committees</li> <li>Additional members are appointed in writing.</li> <li>Meetings held monthly, Minutes kept.</li> <li>Actioned by Management.</li> </ul>
Section 37(1) & (2)	<b>Agreement with Mandatories/ (Sub-)Contractors</b>	<ul style="list-style-type: none"> <li>Written agreement with (Sub-)Contractors</li> <li>List of SubContractors displayed.</li> <li>Proof of Registration with Compensation Insurer/Letter of Good Standing</li> <li>Construction Supervisor designated</li> <li>Written arrangements re.</li> <li>H&amp;S Reps &amp; H&amp;S Committee</li> <li>Written arrangements re. First Aid</li> </ul>
Section 24 & General Admin. Regulation 8 C/OID Act Sect.38, 39 & 41	<b>Reporting of Incidents (Dept. of Labour)</b>	<ul style="list-style-type: none"> <li>Incident Reporting Procedure displayed.</li> <li>All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1 or 2) and to the Client and/or its Agent on its behalf</li> <li>Cases of Occupational Disease Reported</li> <li>Copies of Reports available on Site</li> <li>Record of First Aid injuries kept</li> </ul>
General Admin. Regulation 9	<b>Investigation and Recording of Incidents</b>	<ul style="list-style-type: none"> <li>All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing.</li> <li>Copies of Reports (Annexure 1) available on Site</li> <li>Tabled at H&amp;S Committee meeting</li> <li>Action taken by Site Management.</li> </ul>
Construction. Regulation 8	<b>Fall Prevention &amp; Protection</b>	<ul style="list-style-type: none"> <li>Competent person appointed to draw up the Fall Protection Plan</li> <li>Proof of appointees competence available on Site</li> <li>Risk Assessment carried out for work at heights</li> <li>Fall Protection Plan drawn up/updated</li> <li>Available on Site</li> </ul>
Construction. Regulation Driven Machinery Regulations 18 & 19	<b>Cranes &amp; Lifting Machines Equipment</b>	<ul style="list-style-type: none"> <li>Competent person appointed in writing to inspect Cranes, Lifting Machines &amp; Equipment</li> <li>Written Proof of Competence of above appointee available on Site.</li> <li>Cranes &amp; Lifting tackle identified/numbered</li> </ul>

		<ul style="list-style-type: none"> <li>• Register kept for Lifting Tackle</li> <li>• Log Book kept for each individual Crane</li> <li>• Inspection: - All cranes - <b>daily by operator</b> <ul style="list-style-type: none"> <li>- Tower Crane/s - <b>after erection/6monthly</b></li> <li>- Other cranes - <b>annually by comp. person</b></li> </ul> </li> <li>• - Lifting tackle(slings/ropes/chain slings etc.) - daily or before every new application</li> </ul>
General Safety Regulation 8(1)(a)	<b>Designation of Stacking &amp; Storage Supervisor.</b>	<ul style="list-style-type: none"> <li>• Competent Person/s with specific knowledge and experience designated to supervise all Stacking &amp; Storage</li> <li>• Written Proof of Competence of above appointee available on Site</li> </ul>
Construction, Regulation Environmental Regulation 9	<b>Designation of a Person to Co-ordinate Emergency Planning And Fire Protection</b>	<ul style="list-style-type: none"> <li>• Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures</li> <li>• Emergency Evacuation Plan developed: <ul style="list-style-type: none"> <li>• Drilled/Practiced</li> <li>• Plan &amp; Records of Drills/Practices available on Site</li> <li>• Fire Risk Assessment carried out</li> <li>• All Fire Extinguishing Equipment identified and on <b>register</b>.</li> <li>• Inspected weekly. Inspection Register kept</li> <li>• Serviced annually</li> </ul> </li> </ul>
General Safety Regulation 3	<b>First Aid</b>	<ul style="list-style-type: none"> <li>• Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed)</li> <li>• First Aid freely available</li> <li>• Equipment as per the list in the OH&amp;S Act.</li> <li>• One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed)</li> <li>• List of First Aid Officials and Certificates</li> <li>• Name of person/s in charge of First Aid box/es displayed.</li> <li>• Location of First Aid box/es clearly indicated.</li> <li>• Signs instructing employees to report all Injuries/illness including first aid injuries</li> <li>• PSE Risk Assessment carried out</li> <li>• Items of PSE prescribed/use enforced</li> </ul>
General Safety Regulation 2	<b>Personal Safety Equipment (PSE)</b>	

		<ul style="list-style-type: none"> <li>Records of Issue kept</li> <li>Undertaking by Employee to use/wear PSE</li> <li>PSE remain property of Employer, not to be removed from premises GSR 2(4)</li> </ul>
General Safety Regulation 9	<b>Inspection &amp; Use of Welding/Flame Cutting Equipment</b>	<ul style="list-style-type: none"> <li>Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment</li> <li>Written Proof of Competence of above appointee available on Site</li> <li>All new vessels checked for leaks, leaking vessels NOT taken into stock but returned to supplier immediately</li> <li>Equipment identified/numbered and entered into a register</li> <li>Equipment inspected weekly. Inspection Register kept</li> <li>Separate, purpose made storage available for full and empty vessels</li> </ul>
General Safety Regulation 13A	<b>Inspection of Ladders</b>	<ul style="list-style-type: none"> <li>Competent person appointed in writing to inspect Ladders</li> <li>Ladders inspected at arrival on site and weekly thereafter. Inspections register kept</li> <li>Application of the types of ladders (wooden, aluminium etc.) regulated by training and inspections and noted in register</li> </ul>
General Safety regulation 13B	<b>Ramps</b>	<ul style="list-style-type: none"> <li>Competent person appointed in writing to supervise the erection &amp; inspection of Ramps. Inspection register kept.</li> <li>Daily inspected and noted in register</li> </ul>

## **15. THE PRINCIPAL CONTRACTOR'S GENERAL DUTIES**

- The Principal Contractor shall at all times ensure his status of an “employer” as referred to in the Act, and will abide by his/her responsibilities, duties and functions as per the requirements of the Act and Regulations with specific reference to Section 8 of the Act.
- The Principal Contractor shall keep, and on demand make available, a copy of the Act on site at all times and in addition to that he/she will introduce and maintain a file titled “Health and Safety File”, or other record in permanent form, which shall contain all relevant aspects and information as contemplated in the Construction Regulations. He/she will make this file available to the client or his representative whenever necessary or on request to an interested party.
- The project under control of the Principal Contractor shall be subject to periodic health and safety audits that will be conducted by the client at intervals agreed upon between the Principal Contractor and the client, provided such intervals will not exceed periods of one month.
- The Principal Contractor is to ensure that he/she and all persons under his control on the construction site shall adhere to the above specifications.
- The Principal Contractor should note that he/she shall be held liable for any anomalies including costs and resulting deficiencies due to delays caused by non-conformance and/or non-compliance to the above Health and Safety Specifications and the Health and Safety Plan based on these specifications.

## **16. THE PRINCIPAL CONTRACTOR'S SPECIFIC DUTIES**

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The Principal Contractor's specific duties in terms of these specifications are detailed in the Construction Regulations as published under government notice 07 August 2014, stipulated in Section 7.

## **17. THE PRINCIPAL CONTRACTOR'S SPECIFIC RESPONSIBILITIES WITH REGARD TO HAZARDOUS ACTIVITIES**

The following examples of activities are identifiable as hazardous in terms of the Construction Regulations. The contractor shall execute the activities in accordance with the following Construction Regulations and other applicable regulations of the Act:

- Fall protection
- Structures
- Excavation work
- Demolition work
- Scaffolding
- Construction vehicles & mobile plant.
- Water environments
- Housekeeping on construction sites
- Fire precautions on construction sites.

This list must not be taken to be exclusive or exhaustive! All of the above requirements will be read in conjunction with the relevant regulations and health and safety standards as required by the Act. All documents and records required by the Construction Regulations will be kept in the Health and Safety File and will be made available at any time when required by the client or his representative, or on request to an interested party.

## **18. GENERAL NOTES TO THE PRINCIPAL CONTRACTOR**

## Legal Framework

Part of legal obligations

The more important Acts and relevant subordinate/secondary legislation as well as other (inter alia Local Government) legislation that also apply to the State as well as to State owned buildings and premises: -

- a. The latest issue of SABS 0142: "Code of Practice for the Wiring of Premises"
- b. The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority
- c. The Fire Brigade Services Act 1987, Act 99 of 1987 as amended
- d. The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended and relevant proclaimed Regulations (SABS 0400)
- e. The Post Office Act 1958 (Act 44 of 1958) as amended
- f. The Electricity Act 1984, Act 41 of 1984
- g. The Regulations of Local Gas Board(s), including Publications of the SABS Standards and Codes of Practice, with specific reference to GNR 17468 dated 4<sup>th</sup> October 1997
- h. Legislation pertaining to water usage and the environment
- i. Legislation governing the use of equipment, which may emit radiation (e.g. X-Rays etc.)
- j. Common Law

## 19. HOUSE KEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 25. Poor housekeeping contributes to three major problems, namely, costly or

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increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

In promotion of environmental control all waste, rubble, scrap etc, will be disposed of at a registered dump site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied.

Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

NOTE: No employer (Principal Contractor) shall require or permit any person to work at night or after hours unless there is adequate, suitable artificial lighting including support services in respect of Health and Safety.

**a) Facilities**

The site establishment plan shall make provision for:

**b) Dining room facilities**

The contractor shall make provision for adequate dining room facilities for his employees on site.

**c) Change rooms**

The contractor shall make provision for adequate change rooms for his employees on site.

**d) Ablution facilities**

The contractor shall make provision for adequate ablution facilities for his employees on site.

These facilities shall be maintained by the contractor.



**e) Smoking Areas**

Designated smoking areas shall be established by Department of Public Works.

**f) Drinking Water Facilities**

The provision of drinking water facilities shall be negotiated between the Contractor and Department of Public Works.

**g) Equipment Compliance Certificates**

Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:

- i. lifting equipment and lifting tackle
- ii. power driven machinery
- iii. electrical equipment
- iv. testing and monitoring equipment

**h) Barricading**

All barricading shall be of the rigid type unless the use of non-rigid barricading has been approved in writing by the Department of Public Works Project Manager. The contractors' barricading standard shall be included in the Health and Safety Plan.

Where more than one contractor is working on a site, the fixed barricading shall be clearly marked with the company's name, site contact person as well as the contact number/s.

**i) Erection of Structures for Logistic Support**

Prior to site establishment Department of Public Works shall approve the contractor's site plan.

Department of Public Works shall approve all structures erected for logistical support by the contractor. These structures include fences, workshops, tool sheds, offices, ablution facilities, etc.

#### **j) Salvage Yard Management**

Depending on the site specific arrangements and procedures, Department of Public Works may provide the salvage yard and the resources to manage it.

The salvage yard management shall conform to safety, health and environmental requirements. The contractors are required to move the equipment from the place of work to the salvage yard.

#### **k) Fall Arrest and Prevention Equipment**

Approved fall prevention equipment shall be used at heights of less than 2.0 metres. Above heights of 2.0 metres fall prevention equipment shall include fall arrest Equipment. Users of fall arrest equipment shall, amongst other things be trained in what an appropriate load bearing point is for connecting fall prevention equipment. Any deviation from this requirement shall be negotiated and agreed with Department of Public Works in writing.

#### **l) Hazardous Chemical Substances Waste Removal**

Department of Public Works shall provide a facility to collect all hazardous chemical waste material.

The contractor shall provide adequately marked and sealable containers to transport The hazardous chemical waste from the source to the approved Department of Public Works disposal point.

#### **m) Personal Protective Equipment (PPE)**

Personal protective equipment issued shall be specific to the risks associated with the work to be performed and specific to conditions on site and shall comply with South African National Standards (SANS) or similar.

## 20. LOCKOUT SYSTEMS

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

## 21. IMPORTANT LISTS AND RECORDS TO BE KEPT

The following are lists of several records that are to be kept in terms of the Construction Regulations. The lists are:

- i. List of appointments
- ii. List of record keeping responsibilities
- iii. Inspection checklist

### a) Contractor Risk Assessment Process

The risk assessment process shall include:

- 1) an evaluation of the method of the work to be conducted
- 2) the method statement on the procedure to be followed in performing the task shall be developed
- 3) the risk assessment will also include activities like:
  - i. Transportation of passengers and goods to and from site
  - ii. Site establishment
  - iii. Physical and mental capabilities of employees
  - iv. Others as may be specified.
- 4) the hazards as listed in the paragraph – Site Specific Health and Safety Hazards

- 5) a review plan for risk assessments shall provide for:
- i. the quarterly review of all applicable risk assessments
  - ii. the review of an assessment if there is reason to believe that the previous assessment is no longer valid, or there has been a change in a process, work methods, equipment or procedures and working conditions
  - iii. Risk assessment/s to be reviewed if the outcome of incident investigations and audits etc. requires such action.

A pre - task risk assessment shall be conducted in writing on every task and be facilitated by the team leader. All risk assessments and pre-task risk assessments shall be filed and be available on site.

**b) Risk Profile**

All contractors shall submit a risk profile of the work to be conducted with their Health and Safety Plan.







**c) Risk Based Inspection Program**

The inspection programme shall be risk based. The inspection plan shall form part of the Health and Safety Plan.

# IMPORTANT CONTACT DETIALS

(FOR HEALTH & SAFETY ASPECTS ONLY)

The contractor is to add all the important contact information about essentials services, support and assistance.

	SERVICE	NUMBER	CONTACT PERSON
	Hospital		
	Ambulance		
	Water Electricity		
	Police		
	Fire Brigade		
	Engineer		

ADD OTHER IMPORTANT HEALTH & SAFETY CONTACT DETAILS AS MAY BE FOUND NECESSARY.

**SECTION 37(2) AGREEMENTS**  
**CONCLUDED BETWEEN**  
**DEPARTMENT OF PUBLIC WORKS**  
(Hereinafter referred to as Department of Public Works)

**AND**

.....  
**(Name of contractor/supplier/Agent/)**

I, .....  
(name)representing ..... [*Insert name of contractor/supplier*], do hereby acknowledge that .....  
[*insert name of contractor/supplier*] is an employer in his/her own right, with duties as prescribed in the Occupational Health and Safety Act No. 85 of 1993 ("the Act"), as amended, and agree to ensure that all work will be performed and/or machinery or plant used in accordance with the provisions of the Act.

I undertake that ..... [*insert name of contractor/supplier*]  
shall strictly adhere to, and ensure that his/her employees adhere to, the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

I have been provided with SHE specifications for project/service .....[*insert brief details of project/service, for example, name, contract/project number*]  
.....and will comply with the requirements set out in these.

I accept and agree that the SHE specifications constitute arrangements and procedures between ..... [*Insert name of contractor/supplier/Agent Safety Manager/Safety Officer*] and Department of Public Works, which will ensure compliance by ..... [*Insert name of contractor/supplier*] with the provisions of the Act, as contemplated in section 37(2) of the Act.

This agreement constitutes the sole agreement between the parties, and no variation, modification, or waiver of any of the provisions of this agreement or consent to any departure from these shall, in any manner, be of any force or effect, unless confirmed in writing and signed by both parties, and such variation, modification, waiver, or consent shall be effective only in the specific instance and for the specific purpose and to the extent for which it was made or given.

This agreement is signed on behalf of the parties, each signatory to this warranting that he/she has the requisite authority to do so.

Signed this ..... day of ..... 20 ..... at

..... (Place)

(Full name)..... (Signature) .....on

behalf of ..... **(Supplier/contractor/Agent)**

**Contractor Responsible Manager** (*responsible for signing the Department of Public Works' contract on behalf of the contractor*)

Witnesses

1. ....

2. ....

Signed this ..... day of .....20.....

at ..... (Place)

(Full name)..... (Signature).....on

Behalf of **Department of Public Works.**

**(Contracts and/or Project Manager or Department of Public Works representative)**

Witnesses

1. ....

2. ....

**PROJECT:** \_\_\_\_\_  
(full name AND site address of project)  
(and full or proper description of project)

**WCS NO:** \_\_\_\_\_ (works control system number)

**SUPERVISION BY THE DEPARTMENT OF PUBLIC WORKS:**

**Mr /Ms/Me** - **CONSTRUCTION PROJECT MANAGER**  
(add full details of the project manager)

.....  
.....

**Mr /Ms/Me** - **CONSTRUCTION MANAGER**  
(add full details )

.....  
.....

**Mr /Ms/Me** **AGENT:**  
(full particulars of agent)

.....  
.....

**SUPERVISION BY THE PRINCIPAL CONTRACTOR:**

**PRINCIPAL CONTRACTOR:** (full particulars of principle contractor / contractor)

**Mr /Ms/Me** - **CONSTRUCTION HEALTH & SAFETY OFFICER**  
(add full details and contact of this officer)

.....  
.....

**Mr /Ms/Me** - **CONSTRUCTION HEALTH & SAFETY MANAGER**  
(add full details of this officer)

.....  
.....



**Mr /Ms/Me**

.....  
.....

- **CONSTRUCTION HEALTH & SAFETY AGENT  
(add full details of this officer)**

**Mr /Ms/Me**

.....  
.....

- **CONSTRUCTION MANAGER  
(add full details of the head of the project)**



## Additions to health and safety specifications for all construction sites to include COVID 19

1. Introduction
2. References
3. Special appointments
4. Workers transport
5. Security/access control/control of visitors onsite
6. Pre-construction evaluation of medical requirements, screening and training
7. Facilities, resources and action required by principal contractor where applicable contractor onsite
8. Required procedures, documentation development and updates
9. Procedures at start during and at end of shift
10. Managing and controlling flammable hazardous chemicals
11. Contractor management
12. Compliance monitoring and discipline
13. Additional resources and recourse management

### 1. Introduction

COVID 19 Novel Corona virus has changed the world we live in and how we will conduct business activities and life in the future. Due to this it has become necessary to take special precautions, to plan and implement control measures, to prevent further spread of this disease.

These specifications are based on the prevention of persons, objects/tools being contaminated with the virus, infection transmission and specific occupational hygiene practices that focus on the need for employers to implement measures to mitigate or eliminate the transmission of the virus in the workplace.

**This document is an addendum to the original project health and safety specification to assist the principal contractor and contractors to protect their workers, and to comply with the interim Regulations that has been gazetted**

### 2. References

The Department of Employment and Labour has appealed to employers to use the prescriptions of the Occupational Health and Safety (OHS) Act of 1993 in governing workplaces in relation to Coronavirus Disease 2019 COVID19 under the National Disaster Act

Department of labour, notice no. 479, 29 April 2020, covid-19, Occupational health and safety measures in workplaces Covid-19 (c19 ohs), directive by the minister of employment and labour



in terms of regulation 10 (8) of the regulations issued by the minister of cooperative governance and traditional affairs in terms of section 27 (2) of the disaster management act, 2002 (act no. 57 of 2002)

The OHS Act read with the Hazardous Biological Agents Regulations requires the employer to provide and maintain as far as is reasonably practicable a working environment that is safe and without risks to the health of employees

**Section 8(2)(b) of OHS act** *requires steps such as may be reasonably practicable to eliminate or mitigate any hazard or potential hazard before resorting to personal protective equipment (PPE).* However, in the case of COVID19, a combination of controls is required, although the main principle is to follow the hierarchy of controls

However, before the implementation of control measures, current risk assessments need to be reviewed and updated, considering the new hazards posed by exposure to COVID-19 in the workplace. The risk assessment should take the Risk Assessment Guides published online by the National Department of Health into account

### 3. Special appointments

- a. *The employer must appoint a manager (from within the existing structure) to address the concerns of employees and workplace representatives concerning COVID 19*
- b. Appointment and training of security personnel and adequate personnel to conduct procedures of screening, isolating, conducting questionnaire and further actions required if person presents positive COVID 19 symptoms

### 4. Workers transport

- a. Where possible the contractors must arrange transport of their employees in line with the travel rules of not more than 70% occupancy and social distancing
- b. Where not possible to avoid the use of public transport provide employees with information on the virus and precautions to take during public transport travel:
  - i. Frequent sanitising
  - ii. Maintain social distancing (at least 2 m)
  - iii. Always wear a mask
  - iv. Coughing, sneezing safe practice and spitting
  - v. When being coughed or sneezed on, turn face away and do not touch face before hands have been sanitised
  - vi. Do not travel if experiencing symptoms of infection
  - vii. Provide employees with CIPC travel certificate

### 5. Security/access control/control of visitors onsite



- a. **Only 1 access point allowed** on site during the Phase lockdown period.
- b. A policy of lockdown inside site for the whole shift must be maintained which will mean that employees will not be allowed to exit and re-enter the site during working hours. This will prevent employees from bringing contaminated food or articles onto site and **will have to bring food from home**
- c. The principal contractor must enforce strict access control and no person may enter the site except those who have undergone induction training and who is listed on the employee list
- d. The only exceptions are persons who have pre-arranged official appointment which has been approved by the project construction manager. This person may not enter the site before they have passed the screening procedure (fever and questionnaire) and thereafter must be escorted by a person designated by the construction manager
- e. Biometric or any form of touch access entry is prohibited
- f. Delivery vehicle drivers must undergo and pass the full COVID 19 screening procedure or may not leave the cab of the vehicle and wear a face mask
- g. Where more than one Principal Contractor operates on site. A meeting must be held with all the Principal Contractors where an access plan must be formulated and **agreed to in writing**, which incorporates the sharing of expenses and other resources.

## 6. Pre-construction evaluation, screening and training

Principal contractor and contractor's pre-construction requirements:

It is critical that the principal contractor conduct the following preparatory actions before going to site. These actions must be documented and each employee must sign that he/she has undergone this screening and training and understands and procedures

### a. Evaluation:

- i. Employees medical evaluation, ensuring annual medical is valid
- ii. Screening:
  1. Fever screening
  2. **Health questionnaire** (signs and symptoms)
  3. Questionnaire of travel during shut down level 4 and exposure
  4. Employee practical understanding of:
    - a. the risks of the virus
    - b. how do you get contaminated?



- c. how do you get infected?
- d. signs and symptoms
- e. prevention

## b. Training program

It is important to understand that workers have been of site for an extended period and which requires that the principal contractor and contractors develop a full risk based induction training and awareness program, policies and procedure for COVID 19 and communicate it with management, employees and contractors which include the following:

- i. Employees responsibility to look after their own health and safety and preventing from being infected or infecting other persons
- ii. What is COVID 19
- iii. How are you infected
- iv. Explanation of symptoms and signs (ever, cough, sore throat, redness of eyes or shortness of breath or difficulty in breathing, body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness
- v. Incubation period
- vi. Explain the risk of underlying conditions, i.e.:
  - 1. People 60 years and older
  - 2. People with chronic lung disease or moderate to severe asthma
  - 3. People who have serious heart conditions
  - 4. People who are immunocompromised
  - 5. People with diabetes
  - 6. People with chronic kidney disease undergoing dialysis
  - 7. People with liver disease
- vi. Self-monitoring and reporting of symptoms, possible exposure or infection to company
- vii. The importance of being aware of who you have been in contact with during work and after hours to assist with tracking in case of being infected
- viii. How to self-isolate
- ix. Company COVID sick leave and Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act
- x. How to prevent infection:
  - 1. Correct methods of sanitising
    - f. Hands
    - g. Personal hygiene
    - h. Site facilities
  - 2. Social distancing
  - 3. Not touching face



4. The correct way to cough or sneeze
  5. Correct use, limitations of and disposal of PPE
  6. How to protect yourself and family after hours
- x. What to do if employee is not feeling well and are presenting with the symptoms when already at the work-place or before arrival onsite include:
1. Employees
    - a. If already onsite
      - i. Immediate reporting to employer
      - ii. Social distancing and other preventative actions
    - b. When not onsite yet
      - i. Do not go to work
      - ii. Who to contact at your company?
      - iii. Relevant company contact numbers
  2. Principal contractor and contractors
    - a. Procedures and PPE required when employee presents with symptoms at the site screening and needs to be isolated and tracking of persons in contact with that employee
    - b. Procedures and care of persons who are in self isolation or being treated at hospital or COVID 19 facility
    - c. Company and employee return to work after recovery procedures
- xii. Updated company COVID 19:
1. SHE plan and risk assessment
  2. Policies
  3. PPE requirements
  4. Method statements & risk assessment
  5. Stay at home policy and sick leave
  6. Employee assistance/care program
- xiii. Include COVID awareness in every day DSTI/permit to work system
- 7. Facilities, resources and action required by principal contractor where applicable contractor onsite**
- a. Provide these employees with appropriate PPE for their tasks
  - b. Prevention of employees having to come into close-proximity (Queuing or bundling together)
  - c. Method/procedure of providing drinking water that cannot be contaminated with the virus



- d. Adequate and appropriate risk-based:
  - i. PPE
  - ii. Sanitising/hand washing facilities at entrance, eating areas, offices, kitchens, toilets (Foot pedal hand sanitisers is the preferable option)
  - iii. Awareness signage and posters
- e. Procedures for sanitising site, offices, toilets, eating areas, meeting rooms communal kitchen appliances, printers and telephones
- f. Procedures and rules to minimise exposure during:
  - i. Meetings (Alternates to close contact meetings)
  - ii. Duration and maximum number of delegates at close contact meetings
  - iii. Induction, Toolbox talk, DSTI
  - iv. Sanitising of areas, offices, boardrooms and furniture
  - v. Communal drinking facility use
  - vi. Housekeeping and garbage removal
- g. Provide an isolation area/tent/room where person can be interviewed and remain until instructions have been received from the COVID 19 control centre on next step to be taken

**CORONA 24 Hour HOTLINE 0800029999**

## **8. Required procedures, documentation development and updates**

The contractor must develop new and update existing plans, policies, documentation and procedures to include COVID 19

- a. She plan and policy
- b. Company COVID 19 plans, policies, procedures and programs to include:
  - i. Prevention, exposure, infection
  - ii. Social distancing during entering and exiting site, meetings, training
  - iii. Creating different areas for and staggering start of work and lunch-times, training sessions and effective planning of required staff compliments
  - iv. Cooperation with local police, clinic, emergency services and notifying them of the project and developing beneficial relationships
  - v. Engaging with CLO and communities and establish a trust relationship by providing relevant information and possible assistance where possible
  - vi. Emergencies (mass infections)
  - vii. Post-infection return to work guideline, which include:
    - 1. minimum medical and practical criteria for return to work
    - 2. medical evaluation by occupational health practitioner



- viii. Employee emotional care and assistance during and post infection
- ix. Management and disposal of contaminated PPE and equipment
- x. Planning to maximise social distancing
- xi. Planning of production and progress to optimise the work-force to minimise the amount of persons onsite at one-time
- xii. Managing and disposal of biological (Virus) contaminated PPE and other personal waste
- xiii. Daily reporting to management of screening results and of persons who were isolated, taken for testing and follow-up
- xiv. Reporting of persons who have been confirmed to be infected to company management, department of labour and Health
- xv. Contact-tracing of persons who were in contact with a person who have been isolated or who has been confirmed as being infected
- xvi. Updated risk assessment to include COVID 19 hazards and risks
- vii. Evaluation of daily screening, reporting to management and if required update procedure and training
- viii. Company policy related to paid sick leave in terms of section 22 of the BCEA illness benefit in terms of clause 4 of the Directive issued on 25 March 2020 on the COVID-19 Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act;
- ix. Also revise the permit to work where required.

#### **9. Procedures at start during and at end of shift**

##### **a. Include conducting and recording information of:**

##### **i. Sanitisation**

- 1. At start of shift all persons must sanitise with sanitiser that contains at least 70% alcohol with foot pedal or automatic detection and spray device, no hand contact
- 2. Site facilities, offices, boardrooms, toilets, eating areas, surfaces
- 3. Hand and power tools, and other communal equipment to be wiped down

##### **ii. Fever screening and procedure when person has fever**

##### **1. Re-do fever screen and if high fever**

- a. Isolate and questionnaire
- b. Procedure if evidence points at infection
- c. Contact call centre and follow instructions
- d. Also follow company procedure for reporting to management, client and authorities

#### **10. Managing and controlling flammable hazardous chemicals**

- a. The type of sanitiser used for COVID 19 must have a minimum of 70% alcohol and it is important that adequate stock is held onsite
- b. Due to its high alcohol content it poses a fire risk as well as a possible risk of being used by workers for intoxicating purposes which can lead to poisoning





- c. It is therefore particularly important to include these risks into account when the risk assessments is updated
- d. The principal contractor and contractors must ensure that they provide a flammable liquid storage facility, considering the quantities they will be storing onsite which conforms with local government fire regulations and GSR 4
- e. The storage area must be lockable and issuing and stock levels must be controlled by an appointed competent hazardous chemical substance controller
- f. Records of stock levels, issuing and usage must be updated daily and any discrepancies must be reported to management and investigated
- g. Decanting procedures must be developed which includes spillage control. Bottles into which it has been decanted into must be marked to clearly show the contents
- h. Appropriate and adequate signage must be posted
- i. Adequate Alcohol resistant foam or Carbon dioxide (CO<sub>2</sub>) fire extinguishers must be appropriately positioned Inspections of the flammable hazardous chemicals store must be conducted at least monthly
- j. Inspections of the flammable hazardous chemicals store must be conducted at least monthly
- k. First aiders should be trained on the first aid measures as set out in the MSDS

## 11. Contractor management

It is the responsibility of the principal contractors to ensure that all contractor comply with the requirements of the addition to the original project health and safety specifications

## 12. Compliance monitoring and discipline

- a. Monitoring of compliance is critical to the prevention program and there may be no tolerance of non-compliance
- b. Strict appropriate disciplinary action must be instituted against employees, contractors, consultants or any person
- c. found in breach of the requirements
- d. The client will be responsible for compliance through audits and inspections and evaluation of principal contractors' reports
- e. The principal contractor must monitor compliance through inspections and COVID 19 specific audit of:
  - i. Available equipment
  - ii. Sanitiser/washing facilities
  - iii. Sanitising of site facilities
  - iv. Employee screening
  - v. Access control
  - vi. Availability of isolation facilities
  - vii. Separation and procedures followed when employees present with symptoms
  - viii. Continues awareness training
- ix. Recordkeeping
- x. Sub-contractor training and screening records, risk assessments and monitoring



- f. Any suspected or confirmed infection or noncompliance with the COVID 19 requirements must be reported to the client health and safety agent with immediate effect
- g. A written incident report must be supplied within 24 hours after the incident. If the risk assessment or procedures are required to be reviewed, same will be done within 36 hours.

### **13. Additional resources and recourse management**

- a. It is a fact that finance and budgets of active projects that were shut down due to COVID 19 have approved budgets and available capital projects that are currently running have already been allocated and approved and Therefore funds should be available from the client to pay Principal Contractors/Contractors
- b. It is therefore critical that the principal contractor ensure that their payment certificates and related documents are correct and is submitted before deadline dates with their invoices. Many delays in payment from clients are due to incorrect or insufficient documentation that has been submitted late.
- c. It is important to understand that the COVID 19 virus has affected all parties and cooperation will increase the probability of completing the project successful
- d. It is critical that the client and principal contractor re-negotiate and discuss the project deadlines and budget and agree on solutions to the benefit of all. The impact of screening, site access, delayed delivery of long lead items due to manufacturing constraints and restrictions due to COVID19 legislation must be considered when negotiating the program and deadlines specifically.
- e. Clients must not delay payment to principal contractors and principal contractors must do the same with their contractors. Delaying payments will have a snowball effect all the way down to the workers who have in some case already not received salaries or has only received partial payment
- f. Businesses must do their utmost to protect the workers who are the most crucial asset of construction
- g. Although SMME are businesses in their own right, many of these companies were already struggling financially before lockdown started and the principal contractor could use the assistance of the project CLO to ensure that workers are being paid and if not report it to the principal contractor.
- h. Contractor must assist employees with UIF claims.
- i. All the above requirement and information must be filtered down to the contractors onsite**

**“Health and safety is not negotiable”**

**NATIONAL YOUTH SERVICE ADDITIONAL SPECIFICATION**

The following Specification is divided into the following compliance categories that must be fulfilled:-

1. EPWP NYS Specification
  2. EPWP Reporting requirements
  3. DPW Projects Branding
  4. SMME Development Specification
- SL Employment and Training of Youth Participants on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS)

**1. EPWP NYS SPECIFICATION****CONTENTS**

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SL 02	TERMINOLOGY AND DEFINITIONS
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EXAMPLE	EPWP-NYS EMPLOYMENT AGREEMENT

**SL 01. SCOPE**

This project is part of the Expanded Public Works Programme (EPWP) and aims to train young people and provide them with practical work experience under the National Youth Service (NYS) training. Youth aged between 18 and 35 will be recruited through EPWP processes and be trained in skills relevant to the work that will be done on this project.

The training of the youth employed will have to be conducted by an accredited Training Service Provider contracted by a contractor in conjunction with EPWP processes (where EPWP NYS Coordinator will give guidance). The contracted Training Service Provider will have at all times provide the Contractor with an update on youth training each have received.

The Contractor will be required in both training and on site exposure to employ all of the youth for a minimum period of 9 months. Furthermore the Contractor will be required to avail services of an adequately qualified foreman/ supervisor specifically for EPWP NYS youth Participants to act as their construction mentor for the duration of on site training. The contractor may not be required to employ all youth in the programme at the same time, but may phase the youth throughout the project, as long all youth will receive their minimum duration stated earlier.

This specification contains the standard terms and conditions for Participants employed in elementary occupations and training on a Special Public Works Programme (SPWP) for the National Youth Services Programme. These terms and conditions do NOT apply to person's permanent employed in the supervision and management of a SPWP.

**SL 02. TERMINOLOGY AND DEFINITIONS****SL 02.01 TERMINOLOGY**

- 02.01.01 "SPWP" – The Code of Good Practice for Special Public Works Programmes, which has been gazetted by the Department of Labour, and which provides for special conditions of employment for these EPWP projects. In terms of the Code of Good Practice, the Participants on these projects are entitled to formal training, which will be provided by an accredited training provider/s appointed (and funded) by the Department of Public Works through contracted Contractor. For projects of up to six months in duration, this training will cover life-skills and information about other education, training and employment opportunities.
- 02.01.02 "EPWP" – Expanded Public Works Programme, a National Programme of South Africa Government, approved by Cabinet.
- 02.01.03 "NYS" – National Youth Service means a structured skills development programme aimed to capacitate youth.

**SL 02.02 DEFINITIONS**

- 02.02.1 "Employer" – means any Department employing Participants to work in elementary occupations on a SPWP;
- 02.02.2 "Client" – means the Department of Public Works.
- 02.02.3 "Participants" – a recipient/s of National Youth Service programme who benefits through participation in an elementary occupation on a SPWP.
- 02.02.4 "department" – means any department of the State, implementing agent or contractor;
- 02.02.5 "elementary occupation" – means any occupation involving unskilled or semi-skilled work;
- 02.02.6 "management" – means any person employed by a department or implementing agency to administer or execute a SPWP;
- 02.02.7 "task" – means a fixed quantity of work;
- 02.02.8 "task-based work" – means work in which a Participant is paid a fixed rate for performing a task;
- 02.02.9 "task-rated Participant" – means a Participant paid on the basis of the number of tasks completed;
- 02.02.10 "time-rated Participant" – means a Participant paid on the basis of the length of time worked
- 02.02.11 "Service Provider" – means the consultant appointed by Department to coordinate and arrange the employment and training of labour on EPWP infrastructure projects.

**SL 03. APPLICABLE LABOUR LAWS**

In line with the Expanded Public Works Programme (EPWP) policies, the Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of labour in government Notice No. R63 of 25 January 2002, of which extracts have been reproduced below, shall apply to works described in the scope of work and which are undertaken by unskilled or semi-skilled Participants.

The Code of Good Practise for Employment and Conditions of Work for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. R64 of 25 January 2002 shall apply to works described in the scope of work and which unskilled or semi-skilled Participants undertake

**SL 04. EXTRACTS FROM MINISTERIAL DETERMINATION REGARDING SPWP****SL 04.01 TERMS OF WORK**

- 04.01.01 Participants on a SPWP are employed on a temporary basis.  
 04.01.02 A Participant may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.  
 04.01.03 Employment on a SPWP does not qualify as employment and a Participant so employed does not have to register as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

**SL 04.02 NORMAL HOURS OF WORK**

- 04.02.01 An employer may not set tasks or hours of work that require a Participant to work–  
 (i) more than forty hours in any week  
 (ii) on more than five days in any week; and  
 (iii) for more than eight hours on any day.  
 04.02.02 An employer and a Participant may agree that the Participant will work four days per week. The Participant may then work up to ten hours per day.  
 04.02.03 A task-rated Participant may not work more than a total of 55 hours in any week to complete the tasks (based on a 40-hour week) allocated to him.  
 04.02.04 Every work is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the Participant ends work on one day until the time the Participant starts work on the next day.

**SL 04.03 MEAL BREAKS**

- 04.03.01 A Participant may not work for more than five hours without taking a meal break of at least thirty minutes duration.  
 04.03.02 An employer and Participant may agree on longer meal breaks.  
 04.03.03 A Participant may not work during a meal break. However, an employer may require a Participant to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another Participant. An employer must take reasonable steps to ensure that a Participant is relieved of his or her duties during the meal break.  
 04.03.04 A Participant is not entitled to payment for the period of a meal break. However, a Participant who is paid on the basis of time worked must be paid if the Participant is required to work or to be available for work during the meal break.

**SL 04.04 DAILY REST PERIOD**

Every Participant is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the Participant ends work on one day until the time the Participant starts work on the next day.

**SL 04.05 WEEKLY REST PERIOD**

Every Participant must have two days off every week. A Participant may only work on their day off to perform work which must be done without delay and cannot be performed by Participants during their ordinary hours of work ("emergency work").

**SL 04.06 WORK ON SUNDAYS AND PUBLIC HOLIDAYS**

- 04.06.01 A Participant may only work on a Sunday or public holiday to perform emergency or security work.  
 04.06.02 Work on Sundays is paid in terms of Basic Conditions of Employment Act rate of pay.  
 04.06.03 A task-rated Participant who works on a public holiday must be paid –  
 (i) the Participants daily task rate, if the Participant works for less than four hours;  
 (ii) double the Participants daily task rate, if the Participant works for more than four hours.  
 04.06.04 A time-rated Participant who works on a public holiday must be paid –  
 (i) the Participants daily rate of pay, if the Participant works for less than four hours on the public holiday;  
 (ii) double the Participants daily rate of pay, if the Participant works for more than four hours on the public holiday.

**SL 04.07 SICK LEAVE**

- 04.07.01 Only Participants who work four or more days per week have the right to claim sick-pay in terms of this clause.  
 04.07.02 A Participant who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the Participant has worked in terms of a contract.  
 04.07.03 A Participant may accumulate a maximum of twelve days' sick leave in a year.  
 04.07.04 Accumulated sick-leave may not be transferred from one contract to another contract.  
 04.07.05 An employer must pay a task-rated Participant the Participants daily task rate for a day's sick leave.  
 04.07.06 An employer must pay a time-rated Participant the Participants daily rate of pay for a day's sick leave.  
 04.07.07 An employer must pay a Participant sick pay on the Participants usual payday.  
 04.07.08 Before paying sick-pay, an employer may require a Participant to produce a certificate stating that the Participant was unable to work on account of sickness or injury if the Participant is –  
 (i) absent from work for more than two consecutive days; or  
 (ii) absent from work on more than two occasions in any eight-week period.

- 04.07.09 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 04.07.10 A Participant is not entitled to paid sick-leave for a work-related injury or occupational disease for which the Participant can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

**SL 04.08** **MATERNITY LEAVE**

- 04.08.01 A Participant may take up to four consecutive months' unpaid maternity leave.
- 04.08.02 A Participant is not entitled to any payment or employment-related benefits during maternity leave.
- 04.08.03 A Participant must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 04.08.04 A Participant is not required to take the full period of maternity leave. However, a Participant may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- (i) A Participant may begin maternity leave:-
1. four weeks before the expected date of birth; or on an earlier date;
  2. if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the Participant or that of her unborn child; or
  3. if agreed to between employer and Participant; or
  4. on a later date, if a medical practitioner, midwife or certified nurse has certified that the Participant is able to continue to work without endangering her health.
- 04.08.05 A Participant who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 04.08.06 A Participant who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

**SL 04.09** **FAMILY RESPONSIBILITY LEAVE**

- 04.09.01 Participants, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances:-
- i. when the employee's child is born;
  - ii. when the employee's child is sick;
  - iii. in the event of the death of:-
    1. the employee's spouse or life partner
    2. the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling

**SL 04.10** **STATEMENT OF CONDITIONS**

- 04.10.01 An employer must give a Participant a statement containing the following details at the start of employment:-
- i. the employer's name and address and the name of the SPWP;
  - ii. the tasks or job that the Participant is to perform;
  - iii. the period for which the Participant is hired or, if this is not certain, the expected duration of the contract;
  - iv. the Participants rate of pay and how this is to be calculated;
  - v. the training that the Participant may be entitled to receive during the SPWP.
- 04.10.02 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- 04.10.03 An employer must supply each Participant with a copy of the relevant conditions of employment contained in this specification.
- 04.10.04 An employer must enter into a formal contract of employment with each employee. A copy of a pro-forma is attached at the end of this specification.

**SL 04.11** **KEEPING RECORDS**

- 04.11.01 Every employer must keep a written record of at least the following –
- i. The Participant/s employment contract;
  - ii. Payments (proof of payments) made to each Participant.
  - iii. Certified copy of an Identity Document
  - iv. Signed monthly attendance registers
  - v. in the case of a task-rated Participant, the number of tasks completed by the Participant;
  - vi. in the case of a time-rated Participant, the time worked by the Participant;
- 04.11.02 The employer must keep this record for a period of at least three years after the completion of the SPWP.

**SL 04.12** **PAYMENT**

- 04.12.01 The Participants shall be remunerated monthly in terms of the amount agreed upon by Ministerial Determination 4 and paid monthly on the day agreed upon with the contractor.
- 04.12.02 Payment must be made through electronic fund transfer (EFT) into Participant bank account.
- 04.12.03 An employer must give a Participant the following information in writing –
- i. the period for which payment is made;
  - ii. the number of tasks completed or hours worked;
  - iii. the Participants earnings;
  - iv. any money deducted from the payment;
  - v. the actual amount paid to the Participant.
- 04.12.04 After the Participant is paid s/he must acknowledge receipt of payment by signing payment register.
- 04.12.05 If a Participants employment is terminated, the employer must pay all monies owing to that Participant within one month of the termination of employment.

**SL 04.13** **DEDUCTIONS**

- 04.13.01 An employer may not deduct money from a Participants payment unless the deduction is required in terms of a law.
- 04.13.02 An employer who deducts money from a Participants pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- 04.13.03 An employer may not require or allow a Participant to:–
- i. repay any payment except an overpayment previously made by the employer by mistake;
  - ii. state that the Participant received a greater amount of money than the employer actually paid to the Participant;

**SL 04.14 HEALTH AND SAFETY**

- 04.14.01 Employers must take all reasonable steps to ensure that the working environment is healthy and safe and that all legal requirements regarding health and safety are strictly adhered to in accordance to Occupational Safety and Health Act no 85 of 1993
- 04.14.02 A Participant must:
- i. work in a way that does not endanger his/her health and safety or that of any other person;
  - ii. obey any health and safety instruction; in accordance to Occupational Safety and health Act no 85 of 1993
  - iii. use any personal protective equipment or clothing issued by the employer;
  - iv. report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.
- 04.14.03 Employers must conduct occupational medical examinational fitness test.

**SL 04.15 COMPENSATION FOR INJURIES AND DISEASES**

- 04.15.01 It is the responsibility of employers to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 04.15.02 A Participant must report any work-related injury or occupational disease to their employer or manager.
- 04.15.03 The employer must report the accident or disease to the Compensation of Injuries and Diseases Act Commissioner within 07 days.
- 04.15.04 An employer must pay a Participant who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months.
- 04.15.05 The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

**SL 04.16 TERMINATION**

- 04.16.01 The employer may terminate the employment of a Participant provided he has a valid reason and after following existing termination procedures.
- 04.16.02 A Participant will not receive severance pay on termination.
- 04.16.03 A Participant is not required to give notice to terminate employment. However, a Participant who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 04.16.04 A Participant who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the Participant may be re-engaged if a position becomes available for the balance of the 24-month period.
- 04.16.05 A Participant who does not attend required training events, without good reason, will have terminated the contract. However, the Participant may be re-engaged if a position becomes available for the balance of the 24-month period.

**SL 04.17 CERTIFICATE OF SERVICE**

- 04.17.01 On termination of employment, a Participant is entitled to a certificate stating:–
- i. the Participants full name;
  - ii. the name and address of the employer;
  - iii. the SPWP on which the Participant worked;
  - iv. the work performed by the Participant;
  - v. any training received by the Participant as part of the SPWP;
  - vi. the period for which the Participant worked on the SPWP;
  - vii. any other information agreed on by the employer and Participant.

**SL 05. EMPLOYER'S RESPONSIBILITIES**

- The employer shall adhere to the conditions of employment as stipulated in the *Code of Good Practice for Employment and Conditions of Work for Special Public Works Programmes*. Over and above the conditions stipulated above, he shall be responsible to:
- 05.01 formulate and design a contract between himself/ herself and each of the recruited youth Participants, ensuring that the contract does not contravene any of the Acts stipulated in South African Law, e.g. Basic Conditions of Employment Act, etc. (A copy of a pro-forma contract is attached at the end of this specification);
- 05.02 screen and select suitable candidates for employment from the priority list of youth Participants provided by the Umsobomvu Youth Fund (UYF);
- 05.03 ensure that the recruited youth Participants are made available to receive basic life skills training which will be conducted and paid for by the Umsobomvu Youth Fund;
- 05.04 ensure that all youth Participants receive instruction on safety on site prior to them commencing with work on site;
- 05.05 ensure that all youth Participants are covered under workmen's compensation for as long as they are contracted to the contractor. Payment to the Compensation Commissioner shall be the responsibility of the contractor;
- 05.06 assist in the identification and assessment of potential youth Participants to undergo advanced technical training in respective trades;
- 05.07 test and implement strict quality control and to ensure that the health and safety regulations are adhered to;
- 05.08 provide all youth Participants with the necessary protective clothing as required by law for the specific trades that they are involved in.
- 05.09 provide overall supervision and day-to-day management of youth Participants and/or sub-contractors; and

- 05.10 ensure that all youth Participants are paid their wages on time through a pre-agreed payment method as stipulated in the contract with the youth Participant.

**SL 06. TRAINING OF YOUTH PARTICIPANTS**

**SL 06.01 PREAMBLE**

The Code of Good Practise for Employment and Conditions of Work for Special Public Works Programmes encourages:-

- 06.01.01 optimal use of locally-based labour in a Special Public Works Programme (SPWP);  
 06.01.02 a focus on targeted groups which consist of namely youth, consisting of women, female-headed households, disabled and households coping with HIV/AIDS; and  
 06.01.03 the empowerment of individuals and communities engaged in a SPWP through the provision of training.

**SL 07. BENEFICIARY (YOUTH PARTICIPANTS) SELECTION CRITERIA**

The youth Participants of the programmes should preferably be non-working individuals from the most vulnerable sections of disadvantaged communities who do not receive any social security pension income. The local community must, through all structures available, be informed of and consulted about the establishment of any EPWP-NYS.

In order to spread the benefit as broadly as possible in the community, a maximum of one person per household should be employed, taking local circumstances into account.

Skilled artisans from other areas may be employed if they have skills that are required for a project and there are not enough persons in the local communities who have those skills or who could undergo appropriate skills training. However, this should not result in more than 80% of persons working on a programme not being from local communities.

Programmes should set participation targets for employment with respect to youth, single male- and female-headed households, women, people with disabilities, households coping with HIV/AIDS, people who have never worked, and those in long-term unemployment.

- 07.01 The proposed targets as set out in sub clauses should accommodate:-  
 (i) 100% youth from 18 to 35 years of age;  
 (ii) 60% women;  
 (iii) 2% disabled.

**SL 08. PROVISIONAL RATES OF PAY**

The payment conditions is that a proof be provided in the claim processing of the services rendered and of that cost incurred. The cost incurred means and referred to a periodical or once off proof of payment on any direct or indirect procured services in the EPWP-NYS training bill of quantity where their expenses are charged against line item provisional sums. The line items are set to have a mark-up/ profit value as a separate profit and attendance item to accommodate administration cost and transaction cost where necessary including any other cost incurred activities to render the service complete.

It is stipulated that youth Participants on the EPWP-NYS receive a minimum Stipend per day whilst on off-site and on-site training in ALL provinces. The Stipend means and referred to a claim of a progressive work based experiential training and exposure of any Participant in EPWP-NYS programme. The progressive work referred to a productive days work relevant or similar in nature to the required training standards received by Participant/s and of any relevant cost to be claimed. The failure in compliance in that particular day work will be at a contractors cost remunerated within the required Building Industrial Councils rate of pay.

**SL 09. PAYMENT FOR TRAINING ON YOUTH PARTICIPANTS**

**SL 09.01 (TARGET:- NUMBER OF YOUTH PARTICIPANTS)**

**09.01.01 Orientation and Life Skills**

Orientation and Life Skills development training for youth Participants for an average of set days per youth Participant is necessary at inception of the project once all recruitment processes are exhausted. All youth Participants are entitled to undergo life skills training.

Training on this life skills module will be flexible enough to meet the needs of the employer. Training should take place immediately after site hand-over and during the period of site establishment and pre-planning before actual construction starts, alternatively this will be spread over the duration of the contract period. The contractor will be required to work closely with the Training Service Provider so that the timeframe of the training is aligned with the construction works schedule and the demand for Participants.

**09.01.02 Technical skills training**

Technical skills training for youth Participants for an average of set days per youth Participant is necessary immediately once they conclude their life Skills training. The Employer shall assist in identifying youth Participants for further training. The youth Participant/s will undergo further technical training to prepare them for opportunities as semi-skilled labourers. Such training will comprise of an off-site theoretical component and practical training on-site.

The contractor will be responsible to supervise and appoint appropriate supervision that will act as mentor on Participants for on-site practical work based experiential exposure. The programme will consist of accredited theoretical instruction away from the construction site as well as on-site practical work under the supervision of the employer. The Youth Participants will be entitled to full training programme completion once all training modules are completed.

**SL 010. PAYMENT REDUCTION**

Payment reduction due to not meeting the training target, then as per the contractual penalties obligations of the contract will be applicable up until such time the requirements are met. The contractual penalties obligations is referred to as is detailed in the contractual arrangements

between the contractor and DPW. The payment reduction means no other or alternative clause that will substitute the contractual penalties obligations.

**SL 011. PROFIT AND ATTENDANCE**

The profit and attendance referred to means a line item mark-up percentage of any services rendered within the re-measured progressive claims to DPW by a contractor. The payment conditions is that a proof be provided in the claim processing of the services rendered and of that cost incurred, this is to ensure accountability for Audit purposes by the Department. The cost incurred means and referred to a periodical or once off proof of payment on any direct or indirect procured services in the EPWP-NYS training bill of quantity where their expenses are charged against line item provisional sums. The line items are set to have a mark-up/ profit value as a separate profit and attendance item to accommodate administration cost and transaction cost where necessary including any other cost incurred activities to render the service complete.

**SL 012. PAYMENT FOR TRAVELLING OFF AND ON-SITE TRAINING**

The unit of measurement for travelling shall be the cost for the youth Participant off or on-site that must be arranged by the contractor. Amounts quoted shall be corrected according to re-measurement based on actual invoices. The unit of measurement for travelling shall be the amounts in Rand from a particular transport service taxi. The tendered percentages will be paid to the contractor on the value of each payment pertaining to the travelling to cover contractor's expenses in this regard.

**SL 013. EMPLOYMENT OF YOUTH PARTICIPANTS THAT ARE PAID STIPEND**

Employment of youth Participants on the-job training shall provide youth Participants with on and off-the-job training to enable them to fulfil their employment requirements. The employer shall also be expected to closely monitor the job performance of youth Participants and shall identify potential youth Participants for skills development programmes. The unit of measurement shall be the number of youth Participants at an EPWP-NYS Stipend rate per day as the amount agreed by Ministerial Determination multiplied by the period employed in that particular month.

The rate tendered shall include full compensation for all costs associated with the employment of youth Participants and for complying with the conditions of contract. The cost for the training shall be excluded from this item. This item is based on 9 months minimum appointment for youth Participants. The submission of attendance registers by contractor to DPW is very critical as they are the source leading to training monitoring, transactions and auditing. The attendance registers will be used as a source to quantify eligibility of productive due days for payment.

**SL 014. PROVISION OF EPWP DESIGNED OVERALLS AND HARD HATS TO YOUTH PARTICIPANTS**

The youth Participant/s will each be supplied with 2 sets of EPWP branded overalls, 1 set of EPWP branded hard hat and 1 set of Safety Boots. Youth Participant/s colour of their overall/s should be orange (top and bottom) as per DPWP corporate identity on branding specification with the exception on Correctional Services contracts where the overalls should be blue (top and bottom). An amount has been provided in the Schedule of Quantities under this sub-item for the supply of EPWP designed protective clothing by the contractor.

It is the responsibility of the contractor to purchase or to delegate to its Training Service Provider for the purchase of Participant/s protective clothing. The sets of protective clothing as stated will be provided once and if a need arise to replace for whatever reasons such cost will be recovered from those in need for second set outside the provisional sums arrangement in the contracted bill of quantities.

**SL 015. PROVISION OF BASIC TOOLS FOR YOUTH PARTICIPANTS**

The contractor will provide or delegate to its training Service Provider all youth Participants with prescribed tools for their respective service areas/ trades. The specification for the mentioned tools to be provided by the Training Service Provider. Youth Participant must be provided with set of tools at the end of the programme.

The Training Provider must avail relevant training tools to Youth Participant/s during theoretical training. The main Contractor must avail relevant training tools to Youth Participant/s during on-site training. The tools provided on site must be under the control and supervision of the contractor.

**SL 016. APPOINTMENT OF YOUTH PROJECT TRAINING COORDINATOR (TEAM LEADER/S)**

The appointment of Youth Project Training Coordinator/s (PTC) for the duration of the programme will be determine in the inception of the project. The Youth PTC will be appointed in agreement with EPWP-NYS and will act as Participant Liaison Office to facilitate and coordinate the training programme between the youth Participants, Training Provider, the contractor and EPWP-NYS Office (Maximum ratio is 1:15 minimum – Youth PTC to Youth Participants). The coordination of the training programme as the core function of EPWP NYS will require PTC to monitor and report on compliance issues of work based access, experiential exposure and mentoring on site.

The item rate shall include full compensation for the cost of liaising with all relevant stakeholders on all issues regarding the training. The Youth PTC will assist in administration and promotion of fair, transparent, reliable and competitive private procurement processes and keep/ update documentation. The Youth PTC is required to processes and keep Stipend transaction records among other roles and give inputs on progress work claims, verifications for payments and final accounts.

**SL 017. LOGISTICS FOR EXIT WORKSHOP**

The tendered rate shall include full compensation for the cost of liaising with the relevant Service Providers for the arrangements of all learner profiling and exit workshop events. The items range from catering, clothing, venue hire and decoration and entertainment items, etc.



**CONTRACT CLAUSE****EMPLOYMENT AND TRAINING OF YOUTH WORKERS ON THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP) INFRASTRUCTURE PROJECTS; NATIONAL YOUTH SERVICE (NYS).**

The contractor shall comply with all the requirements as set out in the "Additional Specification SL: Employment and Training of Youth Workers on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS)" as attached to these bills of quantities.

The contractor shall identify a minimum number of youth workers from a priority list, and shall employ them at the statutory labour rates for a minimum period and train them elsewhere through accredited private or public institutions, all as per the aforementioned specification and as measured in these bills of quantities.

The contractor shall liaise and co-ordinate with the employer and the EPWP Training Service Provider with regard to the priority list, the selection of youth workers, and the employment and training of the identified youth workers.

The contractor shall avail the services of an adequately qualified foreman specifically for the EPWP-NYS youth workers, to act as their construction supervisor. The foreman will be responsible for continually monitoring the progress of the youth workers and for addressing questions and issues that may arise from the youth workers.

Separate items which will be subject to re-measurement have been included elsewhere in these bills of quantities to cover the direct costs associated with the employment and training of the youth workers. Any additional requirements in respect of the aforementioned specification are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

**SL 018. EPWP REPORTING REQUIREMENTS**

The Project must be registered on the NDPW EPWP reporting system by the public Body and report on:-

- SL 019.01** Certified copy of participants' id (not later than 3 months at the time of system enrolment),
- SL 019.02** Beneficiary contract need to be uploaded on the system when registering a project for EPWP compliance.
- SL 019.03** The contractor is required to submit monthly beneficiary reports (Annexure B), which are to be attached to payment certificates and invoices as per attached Reporting Templates.
- SL 019.04** The contractor needs to ensure that participants are registered under workman's compensation and that UIF is deducted for EPWP beneficiaries.
- SL 019.05** Payment shall only be processed once compliance with EPWP and other Reporting requirements have been proven.
- SL 019.06** The reported information must be accompanied by:-
  1. Copies of ID (once off) when participants contracted,
  2. Beneficiary Contract of Employment (once off),
  3. Attendance registers (monthly) and
  4. Proof of Payment (monthly)
- SL 019.07** All copies of these documents should be kept safe on site for the duration of the contract for Audit purpose.

**CONTRACT CLAUSE****IMPLEMENTATION OF LABOUR-INTENSIVE INFRASTRUCTURE PROJECTS UNDER THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)**

The Contractor shall comply with all the "Code of Good Practise for Employment and Conditions of Work for Special Public Works Programme" issued in terms of the "Basic Conditions of Employment Act, 1997 (Act No 75 of 1997)" and the related "Ministerial Determination", for the employment of locally employed and or temporary workers on a labour-intensive infrastructure project under the Expanded Public Works Programme (EPWP).

The contractor shall maintain daily records with regards to workers employed and shall, on a monthly basis, submit a report to the principal agent in the prescribed format. Compulsory indicators such as project budget, actual project expenditure, number of job opportunities created, demographic characteristics of workers employed, minimum daily wage rate, number of person-days of employment created and number of training person-days, shall be included in said report, all as defined in the guidelines for the implementation of Labour-intensive Infrastructure Projects Under the Expanded Public Works Programme (EPWP)

Provision for pricing of compliance with the aforementioned is made under this clause and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

**SMME DEVELOPMENT (SUBCONTRACTING) ADDITIONAL SPECIFICATION**

This project is part of the Expanded Public Works Programme sub-programmes namely Vuk'uphile Learnership Programme and Large Projects Programmes and aims to provide opportunities for local Sub-contracting development. The project comprises of works to be undertaken labour-intensively and it also comprises of work packages to be done by Subcontractor.

The Vuk'uphile Learnership Programme, a contractor development programme of the EPWP, is aimed at developing small Contractors to move up the CIDB grading. This programme has been developed to assist contractors to acquire skills and complete projects such that they exit at CIDB Grades higher than their grades on entering the Vuk'uphile Learnership Programme.

This programme involves the training of existing SMME Contractors on the Supervision of Construction Process (SAQA ID 49053) Qualification within the classroom by CETA accredited Training Providers and workplace experiential training by implementation, under supervision of Mentors, of infrastructure projects by emerging Contractors. The theoretical training of the contractors will be coordinated and implemented by a separate service providers. The main contractor will be required to sub-contract portions of the contract to SMME contractors.

**SL 019. VUK'UPHILE LEARNERSHIP PROGRAMME:**

The Vuk'uphile Learnership Programme, a contractor development programme of the EPWP, is aimed at developing small Contractors to move up the CIDB grading.

1. CETA: Construction and Education Training Authority.
2. SAQA: South African Qualifications Authority.
3. SMME: Small Medium and Micro Enterprises.
4. CIDB: Construction Industry development Board.

**SL 020. LEGISLATION APPLICABLE TO VUK'UPHILE LEARNERSHIP PROGRAMME**

1. Section 195 of the Constitution
2. Public Administration must be development-oriented. (1)(c)
3. National Treasury Regulation
4. Work, for Practical Training, allocated to contractors in terms of Treasury Reg. 16A6.4
5. National Development Plan
6. Contribute to reducing unemployment by creating temporary employment by being responsive to the number of unemployed.
7. Creation of employment in terms of Chapter 3 CIDB Practice Note #29
8. Allocation of construction works contracts for developmental objectives

**SL 021. OPERATING PROCEDURES**

The PSC shall oversee the following:-

- (a) The PSC will adhere to government legislation and policy guidelines which are relevant to enable it to execute its work.
- (b) The Intermediary guidelines will also be adhered to e.g. procurement policies
- (c) The meetings will be scheduled, and will be held on agreed dates and times.
- (d) That targets set in terms of work opportunities are met
- (e) That local labour is recruited according to agreed procedures and processes
- (f) Manage EPWP participants grievances
- (g) Responsible for communication with local EPWP participants

**SL 022. SECRETARIAT**

The contractor shall appoint a Community Liaison Officer (CLO) who shall provide secretariat support to the PSC.

**SL 023. PROJECT STEERING COMMITTEE (PSC) MEETINGS**

The PSC shall meet once a month prior to the site meetings and report the resolutions at the Site Meeting.

**SL 024. FUNDING OF PSC**

The activities of the PSC will be voluntary and members would receive no remuneration for their time. The contractor may provide refreshments on the day of a meeting. It is thus important that community members of the PSC be drawn from the local area in order to avoid travelling costs.

**SL 025. SUBCONTRACTING**

The contractor will be required to appoint a minimum of four (4) Vuk'uphile Learnership Programme emerging sub-contractors to undertake work to the minimum of 30% of the contract value on the various service areas but not limited to the following services:

- (a) Service 1 Paving
- (b) Service 2 Concrete surfacing
- (c) Service 3 Laying of kerbs
- (d) Service 4 Construction of concrete/stone pithed channels
- (e) Service 5 Landscaping
- (f) Service 6 Laying of stormwater pipes
- (g) Service 7 Unblocking of catchpits/manholes
- (h) Service 8 Erection of new perimeter fence

- (i) Service 8 Earthworks for patrol paths
- (j) Service 9 Re-routing of existing pipes/cables
- (k) service 10 Removal of tree roots(where feasible)

The contractor shall appoint the specified minimum number of sub-contractors nominated from a Vuk'uphile Learnership Programme database that will be provided by NDPW.

**SL 026. TM – NB:**

The amended In the event that you select a sub-contractor, the JBCC requires the Agent of the Employer in consultation with and to the approval of the contractor to prepare tender documents for such work that has to be performed by the selected sub-contractors. This means that the Learner Contractors will have to go through a tender process – a repeat or extension of the problem that manifested in Overstrand Municipality.

On the other hand, the JBCC states that a nominated sub-contractor shall be a sub-contractor executing work for which a nominated sub-contract amount is included in the contract documents. The specified minimum 35% of work to be sub-contracted determines a nominated sub-contract amount. For example: if the main contractor's tendered amount is R60million, he will have to sub-contract R21million of his contract amount. Divide the sub-contract amount by 4 and you arrive at the nominated amount of R5.25million per Vuk'uphile sub-contractor. The Vuk'uphile Learner Contractors should therefore be appointed as nominated sub-contractors – fully compliant with the JBCC and SCM procurement procedures.

The Contractor will be responsible for drawing implementation plan that will assist in managing the emerging sub-contractors development undertaking Labour Intensive work.

**SL 027. TM – NB:**

The document is skimpy on the General responsibilities of the Contractor In this regard I have scanned three pages from the document that Daveng prepared for the Provincial Dept of Works and is being used at the Overstrand Municipality. It remains your decision on how you want to utilise the information. However, I urge you to seriously consider including Clauses 2.1.2, 2.2.1, 2.2.2 and 2.2.3 amended according to the requirements of this particular project.

## PG-03.1 (EC) SITE INFORMATION – GCC (2010) 2<sup>nd</sup> Edition 2010

Project title:	CAPE TOWN,CENTRAL ,CUSTOMS AND EXCISE BUILDING ,REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA-A			
Tender no:	CPT1002/23	WCS no:		Reference no:

### C4 Site Information

*A detailed list of lift installations for part of the detailed specifications as part of this contract. Modernization, maintenance, repairs as well as call centre functions for breakdown and failure of performance forms part of this contract on the installations listed in the detailed design specification for a period of 60 months from site hand over. The sites are all located within the Western Cape Province borders*

A	1	Simonstown Justice Magistrates Court (SN03752) (Ins 32)
A	2	Simonstown Naval Dock Yard (Electronic Workshop) (OT0046)
A	3	Simonstown Naval Dock Yard (Electronic Workshop) (OT0047)
A	4	Simonstown Naval Dock Yard (Fitters Afloat) (OT0042)
A	5	Simonstown Naval Dock Yard (Fitters Afloat) (OT0043)
A	6	Simonstown Naval Dock Yard (Fitters Afloat) (OT0044)
A	7	Simonstown Naval Dock Yard (Fitters Afloat) (OT0045)
A	8	Simonstown Naval Dock Yard (Sub Repair Complex) (OT0022)
A	9	Simonstown Naval Dock Yard (West Bld 455-466) (08L3844)(08L3845)
A	10	Simonstown Naval Dock Yard (West Bld 455-466) (08L3845)(08L3844)
A	11	Simonstown Naval Fleet Command (HQ) (08L3046)
A	12	Simonstown Naval Fleet Command (HQ) (08L3047)
A	13	Simonstown Naval Fleet Command (HQ) (08L3048)
A	14	Simonstown Naval Fleet Command (HQ) (08L3049)
A	15	Simonstown Naval Fleet Command (HQ) (08L4321)
A	16	Simonstown Naval Fleet Maintenance (Naval Base) (08L3840)
A	17	Simonstown Naval Hugo Bierman (Building) (08L4316) ot 0323
A	18	Simonstown Naval Hugo Bierman (Building) (08L4317) ot 0324
A	19	Simonstown Naval Hugo Bierman (Building) (08L4318) ot 0325
A	20	Simonstown Naval Joe Masego (Barracks) (08L3839)
A	21	Simonstown Naval OPS Room Building (Naval Base) (CE0005) (CTE 0326)



A	22	Simonstown Naval Stores & Offices (Bld 972) (08L4319)
A	23	Simonstown Naval Stores & Offices (Bld 972) (08L4320)
A	24	Simonstown Naval Training Centre (Submarine Evacuation) (OT0022)(SL 0069)
A	25	Simonstown Residence Da Gama Park (CE0209) (OT 0327)
A	26	Simonstown Residence Da Gama Park (CE0210) (OT 0328)
A	27	Simonstown SAS Radar / Combat School (OT0021)
A	28	Atlantis Police SAPS (08L4265)
A	29	Malmesbury DoC Prison (HO0027)
A	30	Vredendal Police SAPS (HQ) (CE3555)
A	31	Van Rhynsdorp Prison
A	32	Saldanha Military Accademy (804895) (M260)
A	33	Saldanha Military Accademy (804896) (M261)
A	34	Paarl Justice Magistrates Court (08L2581) OT0209
A	35	Paarl Police SAPS (08L4310) OT0340
A	36	Paarl Police SAPS (08L4311) OT0341
A	37	Paarl Police SAPS (08L4312) OT0342
A	38	Riebeeck West Police SAPS (KE0024)
A	39	Wynberg Residence Kritzinger Flats (08L3837)
A	40	Wynberg Residence Kritzinger Flats (08L3838)
A	41	Wynberg Residence Van Ryneveld (Flats) (08L3835)
A	42	Wynberg Residence Van Ryneveld (Flats) (08L3836)
A	43	Wynberg SADF Military Base (Sports Complex) (CE3539)
A	44	Wynberg SADF Military Hospital (15042)
A	45	Wynberg SADF Military Hospital (15043)
A	46	Wynberg SADF Military Hospital (15044)
A	47	Wynberg SADF Military Hospital (15045)
A	48	Wynberg SADF Military Hospital (15046)
A	49	Wynberg SADF Military Hospital (OT0030)
A	50	Wynberg SADF Military Hospital (OT0031)



A	51	Wynberg SADF Military Hospital (OT0032)
A	52	Wynberg SADF Military Hospital (OT0033)
A	53	Wynberg SADF Military Hospital (OT0034)
A	54	Wynberg SADF Military Hospital (OT0035)
A	55	Wynberg SADF Military Hospital (Flats) (08L4507)
A	56	Wynberg SADF Military Hospital (Flats) (CE914)
A	57	Wynberg SADF Military Hospital (Flats) (OT0052)
A	58	Wynberg SADF Military Hospital (Flats) (OT0053)
A	59	Wynberg SADF Military Hospital (Flats) (OT0054)
A	60	Wynberg SADF Military Hospital (Admin) (OT0250)
A	61	Wynberg SADF Military Hospital (Admin) (OT0251)
A	62	Africa House (72NE7450)
A	63	Parow Police SAPS (Forensic Science Laboratory) (08L4275)
A	64	Parow Police SAPS (Forensic Science Laboratory) (08L4276)
A	65	Parow Police SAPS (Forensic Science Laboratory) (08L4277)
A	66	Parow Police SAPS (Forensic Science Laboratory) (08L4278)
A	67	Parow Police SAPS (Forensic Science Laboratory) (08L4279)
A	68	Parow Police SAPS (Forensic Science Laboratory) (08L4280)
A	69	Parow Police SAPS (Forensic Science Laboratory) (08L4281)
A	70	Parow Police SAPS (Forensic Science Laboratory) (08L4282)
A	71	Parow Police SAPS (Forensic Science Laboratory) (08L4283)
A	72	Parow Police SAPS (Forensic Science Laboratory) (08L4284)
A	73	Bellville Justice Magistrates Court (CE4471)
A	74	Bellville Justice Magistrates Court (15153)
A	75	Bellville Police SAPS (Bureau for missing persons) (CE4034)
A	76	Bellville Police SAPS (Bureau for missing persons) (CE4031)
A	77	Bellville Police SAPS (Bureau for missing persons) (CE4032)
A	78	Bellville Police SAPS (Bureau for missing persons) (CE4033)
A	79	Milnerton Police SAPS (08L4437)
A	80	Milnerton Police SAPS (08L4438)

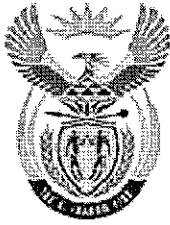


A	81	Cape Town Revenue Building (90 Plein Street) (CE3206)
A	82	Cape Town Revenue Building (90 Plein Street) (CE3207)
A	83	Cape Town Revenue Building (90 Plein Street) (CE3212)
A	84	Cape Town Revenue Building (90 Plein Street) (CE3213)
A	85	Cape Town Revenue Building (90 Plein Street) (CE3208)
A	86	Cape Town Revenue Building (90 Plein Street) (CE3209)
A	87	Cape Town Revenue Building (90 Plein Street) (CE3210)
A	88	Cape Town Revenue Building (90 Plein Street) (CE3211)
A	89	Cape Town Revenue Building (90 Plein Street) (CE3214)
A	90	Cape Town Revenue Building (90 Plein Street) (944)
A	91	Cape Town Revenue Building (90 Plein Street) (945)
A	92	Cape Town Revenue Building (90 Plein Street) (946)
A	93	Cape Town Revenue Building (90 Plein Street) (947)
A	94	Cape Town Revenue Building (90 Plein Street) (948)
A	95	Cape Town Parliament Towers (CTE2662)
A	96	Cape Town Parliament Towers (CTE2663)
A	97	Cape Town Parliament Towers (CTE2664)
A	98	Old Assembly (DW3) (489988)
A	99	Old Assembly (DW4) (489989)
A	100	Cape Town Thomas Boydell (08L4540)
A	101	Cape Town Thomas Boydell (13697)
A	102	Cape Town Thomas Boydell (OT0037)
A	103	Cape Town Thomas Boydell (OT0038)
A	104	Cape Town Thomas Boydell (OT0039)
A	105	Cape Town DPW Stores (08L4271)
A	106	Cape Town Heritage The Castle (Hoists) (13307(H1))
A	107	Cape Town Heritage The Castle (Hoists) (13308(CH306))
A	108	Cape Town Heritage The Castle (Hoists) (13309(CH307))
A	109	Cape Town Library Old Archives (CE4045)



A	110	Cape Town Police Central Barracks (2756)
A	111	Cape Town Police Central Barracks (CE4423)
A	112	Cape Town Police Central Barracks (08L4313)
A	113	Cape Town Police Central Barracks (08L4314)
A	114	Cape Town Police Central Barracks (08L4315)
A	115	Cape Town Police Garmor House (CE1985)
A	116	Cape Town Police Garmor House (CE1986)
A	117	Cape Town Police Garmor House (CE1987)
A	118	Thynhuis (804887) (VE0046)
A	119	Thynhuis (804888) (HO011)
A	120	Athlone Police SAPS (SN00837)
A	121	Athlone Police SAPS (SN00839) SN 00838
A	122	Kenilworth Residence Parkhof (SAPS Flats) (08L3833) Or 34 on paperwork
A	123	Mowbray Department of Rural Development and Land Reform (Van Der Sterr) (CE2991) OT0339
A	124	Mowbray Department of Rural Development and Land Reform (Van Der Sterr) (CE2990) OT 0338
A	125	Grassy Park Police SAPS (C08L2961)
A	126	Grassy Park Police SAPS (C08L2962)
A	127	Kenilworth Residence Parkhof (SAPS Flats) (08L3832)
A	128	Cape Town Slotzboo (08L3842)
A	129	Westbrooke (911113) (CTE 1698)





public works  
& infrastructure

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Department:  
Public Works and Infrastructure  
**REPUBLIC OF SOUTH AFRICA**

Tender no. **CPT1002/23**

Private Bag X9027, Cape Town, 8001, tel. no 021 402 2154, Customs House Building,  
Lower Heerengracht Street, Foreshore, Cape Town, 8000

## **TERMS OF REFERENCE**

**CAPE TOWN,CENTRAL ,CUSTOMS AND EXCISE  
BUILDING, REPAIRS AND MAINTENANCE OF  
VARIOUS LIFTS AREA-A**

# **Tender No. CPT1002/23**



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**TERMS OF REFERENCE**

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23



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## **SECTION 1 – GENERAL**

### **1. SUBMISSION OF MANDATORY DOCUMENTS: BID EVALUATION**

#### **EXPERIENCE (as per the DPW-09)**

The bidder must include on the DPW-09 a minimum of 3 completed projects in lift repairs and lift maintenance clearly indicating the project description, Employer details (company worked for), contract value/amount, start date and the end date of the project with an accumulative minimum value of R30 000 000.00 within the last 10 years, from 2013 calculated up to the closing date:

#### **SUBMISSION OF SUPPORTING DOCUMENTS: BID EVALUATION**

##### **RESOURCES**

##### **a. TEAM LEADER QUALIFICATION AND EXPERIENCE-REGISTERED WITH ECSA**

The Department requires services of team leader registered as a Registered Lift Inspector with Engineering Council of South Africa (ECSA). The bidder must submit the Curriculum Vitae, Proof of registration.

Team Leader must have a minimum 5 years' experience in the lift Industry & baseline determination, Training credentials, and Continued Professional Development in the Lift Industry.

##### **b. TEAM MEMBER(S) QUALIFICATION AND EXPERIENCE - Lift Mechanic(s)**

The Department requires services of a Qualified "competent lift mechanics" as contemplated in Occupational Health and Safety Act, Act 85 of 1993

The bidder must submit the Curriculum Vitae (CV), qualifications, registration(s) and proof of competency certificate of a Qualified "competent lift mechanics" with a minimum 3 years' experience.



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**c. TEAM MEMBER QUALIFICATION AND EXPERIENCE - Construction Health & Safety Officer**

The Department requires service of team member to be registered with the SACPCMP as a Construction Health and Safety Officer.

The bidder to submit the CV, Qualification and proof of registration with the SACPCMP as a Construction Health & Safety Officer in accordance with the Occupational Health and Safety Act and Regulations with a minimum 3 years' experience.

The Department reserves the right to independently validate all the above-mentioned certificate(s) should it deem necessary.

## **2. INTENT OF SPECIFICATION**

The lift specification is intended to cover the complete repairs of specific lift installations as indicated and full comprehensive maintenance for all existing lifts within the scope of works as indicated below. The minimum equipment requirements are outlined, but do not cover all the details of design and construction. Such details are recognised as being the exclusive responsibility of the lift contractor. It is hereby acknowledged that neither the Principal Agent nor the Consulting Engineer invented or developed any part of the lift system, but have only made selections of capacities, speed, control systems, materials, and finishes, as well as specified performance and installation criteria as may be applicable. In all cases where a device or part of the equipment is referred to in the singular, it is intended that such reference shall apply to as many devices as are required to complete the installation.



Below find a table indicting the lift services catered for within the scope of services for Area A:

A	1	Simonstown Justice Magistrates Court (SN03752) (Ins 32)
A	2	Simonstown Naval Dock Yard (Electronic Workshop) (OT0046)
A	3	Simonstown Naval Dock Yard (Electronic Workshop) (OT0047)
A	4	Simonstown Naval Dock Yard (Fitters Afloat) (OT0042)
A	5	Simonstown Naval Dock Yard (Fitters Afloat) (OT0043)
A	6	Simonstown Naval Dock Yard (Fitters Afloat) (OT0044)
A	7	Simonstown Naval Dock Yard (Fitters Afloat) (OT0045)
A	8	Simonstown Naval Dock Yard (Sub Repair Complex) (OT0022)
A	9	Simonstown Naval Dock Yard (West Bld 455-466) (08L3844)(08L3845)
A	10	Simonstown Naval Dock Yard (West Bld 455-466) (08L3845)(08L3844)
A	11	Simonstown Naval Fleet Command (HQ) (08L3046)
A	12	Simonstown Naval Fleet Command (HQ) (08L3047)
A	13	Simonstown Naval Fleet Command (HQ) (08L3048)
A	14	Simonstown Naval Fleet Command (HQ) (08L3049)
A	15	Simonstown Naval Fleet Command (HQ) (08L4321)
A	16	Simonstown Naval Fleet Maintenance (Naval Base) (08L3840)
A	17	Simonstown Naval Hugo Bierman (Building) (08L4316) ot 0323
A	18	Simonstown Naval Hugo Bierman (Building) (08L4317) ot 0324
A	19	Simonstown Naval Hugo Bierman (Building) (08L4318) ot 0325
A	20	Simonstown Naval Joe Masego (Barracks) (08L3839)
A	21	Simonstown Naval OPS Room Building (Naval Base) (CE0005) (CTE 0326)
A	22	Simonstown Naval Stores & Offices (Bld 972) (08L4319)
A	23	Simonstown Naval Stores & Offices (Bld 972) (08L4320)

**TERMS OF REFERENCE**

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

**REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23**



A	24	Simonstown Naval Training Centre (Submarine Evacuation) (OT0022)(SL 0069)
A	25	Simonstown Residence Da Gama Park (CE0209) (OT 0327)
A	26	Simonstown Residence Da Gama Park (CE0210) (OT 0328)
A	27	Simonstown SAS Radar / Combat School (OT0021)
A	28	Atlantis Police SAPS (08L4265)
A	29	Malmesbury DoC Prison (HO0027)
A	30	Vredendal Police SAPS (HQ) (CE3555)
A	31	Van Rhynsdorp Prison
A	32	Saldanha Military Accademy (804895) (M260)
A	33	Saldanha Military Accademy (804896) (M261)
A	34	Paarl Justice Magistrates Court (08L2581) OT0209
A	35	Paarl Police SAPS (08L4310) OT0340
A	36	Paarl Police SAPS (08L4311) OT0341
A	37	Paarl Police SAPS (08L4312) OT0342
A	38	Riebeeck West Police SAPS (KE0024)
A	39	Wynberg Residence Kritzinger Flats (08L3837)
A	40	Wynberg Residence Kritzinger Flats (08L3838)
A	41	Wynberg Residence Van Ryneveld (Flats) (08L3835)
A	42	Wynberg Residence Van Ryneveld (Flats) (08L3836)
A	43	Wynberg SADF Military Base (Sports Complex) (CE3539)
A	44	Wynberg SADF Military Hospital (15042)
A	45	Wynberg SADF Military Hospital (15043)
A	46	Wynberg SADF Military Hospital (15044)
A	47	Wynberg SADF Military Hospital (15045)
A	48	Wynberg SADF Military Hospital (15046)

**TERMS OF REFERENCE**

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

**REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23**





A	49	Wynberg SADF Military Hospital (OT0030)
A	50	Wynberg SADF Military Hospital (OT0031)
A	51	Wynberg SADF Military Hospital (OT0032)
A	52	Wynberg SADF Military Hospital (OT0033)
A	53	Wynberg SADF Military Hospital (OT0034)
A	54	Wynberg SADF Military Hospital (OT0035)
A	55	Wynberg SADF Military Hospital (Flats) (08L4507)
A	56	Wynberg SADF Military Hospital (Flats) (CE914)
A	57	Wynberg SADF Military Hospital (Flats) (OT0052)
A	58	Wynberg SADF Military Hospital (Flats) (OT0053)
A	59	Wynberg SADF Military Hospital (Flats) (OT0054)
A	60	Wynberg SADF Military Hospital (Admin) (OT0250)
A	61	Wynberg SADF Military Hospital (Admin) (OT0251)
A	62	Africa House (72NE7450)
A	63	Parow Police SAPS (Forensic Science Laboratory) (08L4275)
A	64	Parow Police SAPS (Forensic Science Laboratory) (08L4276)
A	65	Parow Police SAPS (Forensic Science Laboratory) (08L4277)
A	66	Parow Police SAPS (Forensic Science Laboratory) (08L4278)
A	67	Parow Police SAPS (Forensic Science Laboratory) (08L4279)
A	68	Parow Police SAPS (Forensic Science Laboratory) (08L4280)
A	69	Parow Police SAPS (Forensic Science Laboratory) (08L4281)
A	70	Parow Police SAPS (Forensic Science Laboratory) (08L4282)
A	71	Parow Police SAPS (Forensic Science Laboratory) (08L4283)
A	72	Parow Police SAPS (Forensic Science Laboratory) (08L4284)
A	73	Bellville Justice Magistrates Court (CE4471)

**TERMS OF REFERENCE**

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

**REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23**



A	74	Bellville Justice Magistrates Court (15153)
A	75	Bellville Police SAPS (Bureau for missing persons) (CE4034)
A	76	Bellville Police SAPS (Bureau for missing persons) (CE4031)
A	77	Bellville Police SAPS (Bureau for missing persons) (CE4032)
A	78	Bellville Police SAPS (Bureau for missing persons) (CE4033)
A	79	Milnerton Police SAPS (08L4437)
A	80	Milnerton Police SAPS (08L4438)
A	81	Cape Town Revenue Building (90 Plein Street) (CE3206)
A	82	Cape Town Revenue Building (90 Plein Street) (CE3207)
A	83	Cape Town Revenue Building (90 Plein Street) (CE3212)
A	84	Cape Town Revenue Building (90 Plein Street) (CE3213)
A	85	Cape Town Revenue Building (90 Plein Street) (CE3208)
A	86	Cape Town Revenue Building (90 Plein Street) (CE3209)
A	87	Cape Town Revenue Building (90 Plein Street) (CE3210)
A	88	Cape Town Revenue Building (90 Plein Street) (CE3211)
A	89	Cape Town Revenue Building (90 Plein Street) (CE3214)
A	90	Cape Town Revenue Building (90 Plein Street) (944)
A	91	Cape Town Revenue Building (90 Plein Street) (945)
A	92	Cape Town Revenue Building (90 Plein Street) (946)
A	93	Cape Town Revenue Building (90 Plein Street) (947)
A	94	Cape Town Revenue Building (90 Plein Street) (948)
A	95	Cape Town Parliament Towers (CTE2662)
A	96	Cape Town Parliament Towers (CTE2663)
A	97	Cape Town Parliament Towers (CTE2664)
A	98	Old Assembly (DW3) (489988)

**TERMS OF REFERENCE**

WESTERN CAPE: NDPW: CAPE TOWN REGION:

**REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23**



A	99	Old Assembly (DW4) (489989)
A	100	Cape Town Thomas Boydell (08L4540)
A	101	Cape Town Thomas Boydell (13697)
A	102	Cape Town Thomas Boydell (OT0037)
A	103	Cape Town Thomas Boydell (OT0038)
A	104	Cape Town Thomas Boydell (OT0039)
A	105	Cape Town DPW Stores (08L4271)
A	106	Cape Town Heritage The Castle (Hoists) (13307(H1))
A	107	Cape Town Heritage The Castle (Hoists) (13308(CH306))
A	108	Cape Town Heritage The Castle (Hoists) (13309(CH307))
A	109	Cape Town Library Old Archives (CE4045)
A	110	Cape Town Police Central Barracks (2756)
A	111	Cape Town Police Central Barracks (CE4423)
A	112	Cape Town Police Central Barracks (08L4313)
A	113	Cape Town Police Central Barracks (08L4314)
A	114	Cape Town Police Central Barracks (08L4315)
A	115	Cape Town Police Garmor House (CE1985)
A	116	Cape Town Police Garmor House (CE1986)
A	117	Cape Town Police Garmor House (CE1987)
A	118	Thynhuis (804887) (VE0046)
A	119	Thynhuis (804888) (HO011)
A	120	Athlone Police SAPS (SN00837)
A	121	Athlone Police SAPS (SN00839) SN 00838
A	122	Kenilworth Residence Parkhof (SAPS Flats) (08L3833) Or 34 on paperwork
A	123	Mowbray Department of Rural Development and Land Reform (Van Der Sterr) (CE2991) OT0339

**TERMS OF REFERENCE**

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

**REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23**



A	124	Mowbray Department of Rural Development and Land Reform (Van Der Sterr) (CE2990) OT 0338
A	125	Grassy Park Police SAPS (C08L2961)
A	126	Grassy Park Police SAPS (C08L2962)
A	127	Kenilworth Residence Parkhof (SAPS Flats) (08L3832)
A	128	Cape Town Slotzboo (08L3842)
A	129	Installation 49C: Westbrooke (911113) (CTE 1698)

## 2. STANDARDS AND CODES

All work shall be in accordance with the requirements of the SABS1545-1; SABS1545-2; SABS1545-5; SABS1545-10; SABS1543; "Specifications for Lifts, Escalators and Passenger Conveyors" and shall comply with the Occupational Health and Safety Act 85 of 1993 and current regulations of all other codes applicable to this work.

Equipment and materials shall be new and manufactured in accordance with EN-81 standards and approved by the local authorities having the appropriate jurisdiction. All equipment shall be provided by the same manufacturer.

## 3. COMPLIANCE WITH REGULATIONS

The installation shall be erected and tested in accordance with the following Acts and Regulations:

- a) The latest issue of SABS 0142: "Code of Practice for the Wiring of Premises",
- b) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended,
- c) The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the Municipal by-laws and any special requirements of the local supply authority,
- d) The Fire Brigade services Act 1993 Act 99 of 1987 as amended,
- e) The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended,
- f) The Post Office Act 1958 (Act 44 of 1958) as amended,

### TERMS OF REFERENCE

WESTERN CAPE: NDPWI: CAPE TOWN REGION:

REPAIRS AND MAINTENANCE OF VARIOUS LIFTS AREA A: Tender No. CPT1002/23



g) The Electricity Act 1984 (Act 41 of 1984) as amended and

h) The Regulations of the local Gas Board where applicable.

## 4. SCOPE OF WORK

### 4.1 Work included

Repair and maintenance of all existing lifts as per the lifts Area A schedule that includes all labour, materials, equipment, and services and perform all operations required for lift work as indicated on drawings or specified herein.

Supply and installation of all fixing materials for refurbishment of equipment in the lift shaft.

Supply and installation of the necessary wiring in conduit from the controlling circuit breaker to the power section of the lift controller.

Supply and install conduit and wiring for the car lighting and socket outlets and the termination and connection thereof in the distribution board, if required.

The existing lift shaft shall be provided with permanently installed electric lighting, which shall be switched from both the pit and the motor room, if not existing. The highest and lowest luminaires shall be mounted not more than 500mm from the top of the shaft and from the bottom of the pit respectively, with intermediate luminaires mounted at intervals not exceeding 7000mm. The minimum illumination at 1000mm above the car roof and the lift pit shall be 50lux.

The installation of all electrical equipment shall comply with the requirements of the SABS0142 and a Certificate of Compliance shall be issued therefor.

### 4.2 Builders Work and Making Good

Should include areas like Lift shafts, pits and motor rooms complete with all access doors and openings.

Concrete slabs with up-stands constructed for the lift machine foundations at the top of each lift shaft.

Waterproofing of lift pit after setting of all pit supporting steels and rail inserts. Pit drains or auto draining pumps as required.

### Electrical



Provision of a 3-phase, 4-wire, 50Hz, 400/231V permanent power supply to a surface mounted distribution board in each machine room. The distribution board will also be equipped with a separate circuit breaker for the shaft and car lighting as well as a separate circuit breaker with earth leakage protection for the socket outlet in the pit and on top of the lift car.

Machine room shall be equipped with sufficient lighting, ventilation and socket outlets as required by the relevant standards and regulations.

If applicable, the standby power supply will be sized to run a predetermined number of lifts simultaneously.

The normal/standby power indicating circuitry shall include, a delayed normally closed potential free contact at 220 Volts/5 Ampere of the emergency power change over switch gear shall be wired to the lift machine room/s and shall be terminated in a suitable junction box. All wire ways or 25mm minimum conduit required to inter-link the lift motor room for the sequencing of lifts in multi-group installations shall be included under this section.

If required, a suitable pit sump pump will be designed, supplied and installed.

## 5. CO-ORDINATING

Due to the nature of the scope of work for the lifts in various areas/sites, a fixed sequence of operation is required to properly repair and maintain the lift systems over the specific period. The work shall be closely scheduled in order not to delay the entire project.

The Lift Contractor shall familiarise himself with the requirements of the other trades and shall examine the plans and specifications covering each of these sections.

The lift space requirements shall be carefully checked with other trades to ensure that the mechanical and electrical parts can be installed in the proper sequence in the space allotted.

## 6. SUBMITTALS

### Layout and Shop Drawings

Layout drawings are required for all lift work, including car enclosure and landing entrance coordinating drawings. Drawings shall show top clearance above cross-heads and counterweight frames, machine room layouts with power requirements and heat release data, location of all equipment on tops of cars, overhead beams and elevations, and reactions which will be transmitted to the building structure during normal operation of lifts.



Shop drawings are required for car enclosure, landing entrances and signal fixture work showing construction, finish and fastening details. Furthermore, shop drawings shall clearly show the motor room construction detail, shaft construction detail including all the required internal supporting beams, pit dividing walls for multi-lift shafts and pit sump pump drains. Composite shop drawings shall be submitted for areas, which require close co-ordination with the work of the different trades. All special equipment and fixture faceplates shall be submitted for approval. Drawings and samples or brochures shall be submitted for each type of fixture. Final design and material proposed for fixture faceplates and special equipment shall be approved by the Representative/Agent.

### **Samples**

All exposed materials and finishes shall be submitted to Representative/Agent for approval in sample form.

The Lift Contractor shall furnish such samples as may be called for and Representative/Agent may reject all materials or workmanship not corresponding with the samples. All approved samples shall be held in safe keeping until such time as the work to which they apply has been completed.

## **7. TESTS CERTIFICATES AND INSPECTIONS**

The Lift Contractor shall carry out all the tests and checks required in terms of the document SABS1545-10 Annex A and/or B and issue the necessary Certificate of Compliance prior to final completion.

Upon completion of the installation of all equipment and once being in full operation the Lift Contractor shall completely test the lift equipment to demonstrate that the equipment is provided in compliance with the specification. The total costs for this test shall be included in the tendered amount.

The Lift Contractor shall decide for such tests and shall give at least 72 hours written notice to the Representative/Agent, before commencing the test.

In the event of the plant, equipment or installation not passing the test, the Representative/Agent shall be at liberty to deduct from the Contract amount all reasonable expenses incurred by the Employer and/or the Representative/Agent attending the test.

Whenever any installation or equipment is operated for testing or adjusting as provided for above, the Contractor shall operate the entire system for as long a period as may be required to always prove satisfactory performance in the occupied space served by that system until the system is handed over.



The Contractor shall provide all labour and supervision required for such operation and the Department may assign operating personnel as observers, but such observation time shall not be counted as instruction time.

After completing the installation or system, all equipment shall be tested, adjusted and readjusted until they operate to the satisfaction and approval of the Representative/ Agent.

The Contractor shall submit certificates of tests carried out to prove the efficiency of all equipment, as well as certificates to be obtained from all relevant authorities, statutory bodies, etc.

## 8. OPERATING AND MAINTENANCE MANUALS

The Contractor shall be responsible for the compilation of a complete set of Operating and Maintenance manuals. This shall be done in accordance with the Additional Specification – Operating and Maintenance manuals.

All information shall be recorded and reproduced in electronic format as well as supplying the Representative/Agent with three sets of hard copies.

Approval of the final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Practical Completion of the installation.

## 9. GUARANTEE AND MAINTENANCE (CALL CENTRE)

Existing maintenance payments on the lifts under the present maintenance contract will be suspended from the date of acceptance of the tender. The lifts will however have to be maintained from the date of acceptance of tender until the lifts are taken out of operation. The successful tenderer will be responsible for the maintenance of the lifts, which will be carried out in compliance with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) as amended, during this period and shall allow for the aspect in his tender price under the Schedules of Quantities in Section 6.

After the first delivery of the lift repair, a 60-month maintenance period will follow thereafter. During this period the lift contractor shall maintain the lift installation as per the requirements of the Occupational Health and Safety Act. This maintenance shall include systematic examinations, adjustments, and lubrication of all lift equipment. Electrical and mechanical parts shall be repaired or replaced whenever it is required to maintain optimum performance for the remainder of the maintenance contract.





The work under this section shall be performed by competent, qualified personnel under the supervision and in the direct employment of the Lift Contractor and shall not be transferred to any non-affiliated agent. Contract maintenance and repair work shall be done during normal working hours and shall further provide emergency call-back service twenty-four (24) hours a day, seven (7) days a week.

The contractor as part of the maintenance will set up a permanent call centre with availability in office hours from 08h00 to 17h00 for notification of lift installation faults. A triplicate "Fault Report Record" book will be issued to each facility management officer for reference of faults logged on the call centre.

All faults recorded to be issued to the engineer weekly inclusive of fault record recorder in Fault Reports Recorded.

Emergency fault report in need of immediate attention will have to be verified with the engineer's representative.

Weekly fault logs and worksheets to be submitted to the engineer weekly for verification.

## 10. MATERIALS AND WORKMANSHIP

(a) The work throughout shall be executed to the highest standards and to the entire satisfaction of the Representative/Agent who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgement, are not in full accordance therewith. All condemned material and workmanship shall be replaced or rectified as directed and approved by the Representative/Agent.

(b) All work shall be executed in a first-class manner by qualified tradesman.

(c) The Contractor shall be fully responsible for his work and shall replace any of the work which may be damaged, lost or stolen. The Contractor shall protect the building and its contents against damage by him, his employees or sub-contractors and shall make good any damage thereto.

(d) The Contractor shall indemnify the Employer of all liability for damages arising from injuries or disabilities to persons or damage to property occasioned by any act or omission of the Contractor or any of his sub-contractors, including any and all expenses, legal or otherwise, which may be incurred by the Employer or Representative/Agent in the defence of any claim, action, or suit.

(e) The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually provided as part of such equipment as is called for and



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which is necessary for its proper completion and operation shall be provided without additional cost whether shown or described in the Contract Document.

(f) The Contractor shall thoroughly acquaint himself with the work involved and shall verify on site all measurements necessary for proper installation work. The Contractor shall also be prepared to promptly furnish any information relating to his own work as may be necessary for the proper installation work and shall co-operate with and co-ordinate the work of others as may be applicable.

(g) The Contractor shall inspect and verify that the existing power feeder system is compatible with the equipment offered and any changes or upgrading of the electrical supply shall be brought to the attention of the Representative/Agent.

(h) Material and equipment damaged in transit shall be replaced with undamaged material.

(i) All components and their respective adjustment, which do not form part of the equipment installation work, but influence the optimum and safe operation of the equipment shall be considered to form part of and shall be included in the Contractor's scope of works.

(j) All control equipment and serviceable items shall be installed and positioned such that they will be accessible and maintainable.

(k) The Contractor shall make sure that all safety regulations and measures are applied and enforced during the installation and guarantee periods to ensure the safety of the public and the User Client.

(l) The Contractor is to include for all scaffolding required to complete the work required.

## **11. IMPORTED EQUIPMENT**

This equipment will not be subject to fluctuations in the rate of exchange.

However, should the Contractor choose to be protected against fluctuations in the rate of exchange on imported equipment, the following conditions will apply:

(a) The Materials Offered Ex-Import (Annexure A), which forms part of this tender document, must be completed by the Contractor.

(b) Any fluctuations in the rate of exchange will be for the account of the Government and shall be calculated from a date seven (7) days prior to the date of the Contractor's tender to a date seven (7) days after receipt by the Contractor's bank of the negotiable bill of lading or the exporter's invoice, provided this latter date is not later than 30 days after the date of payment. Thereafter, fluctuations in the rate of exchange shall not be for the account of the Government.



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## 12. BROCHURES

Detailed brochures of all equipment offered, including the control, drive, door operator, call buttons and signals, remote monitoring station, intercoms and emergency dial-out system shall be presented together with the tender documents.

## SECTION 2 – EQUIPMENT REQUIREMENTS

### 1. HOISTING MACHINE

#### 1.1. Traction Drive

- (a) The brake shall be spring applied and electrically released by direct current. There shall be two shoes actuated by compression springs. The brake shall have sufficient power to hold the car at any landing with the normal amount of counter balancing and with at least 150% of rated load. The brake shall operate in the event of a power failure or any other safety device designed to stop the lift.
- (b) An effective sound reducing material shall be installed between the bedplate of an overhead or basement driving machine and the beams, the structural concrete slab, shaft structure or the up-stands.
- (c) The driving machine and motor shall have sufficient capacity to operate the lift continuously at 100% of rated speed in both directions without overheating or hunting during levelling.
- (d) The lift machinery shall operate silently and without vibration. The lifts shall constantly operate and shall be maintained at noise levels not exceeding 56 DB (A). The noise levels shall be considered acceptable if it does not exceed 56 DB (A) measured on the landing and in the car enclosure.
- (e) Provision shall be made for a safe method of moving the car by hand in the event of a power failure and all the necessary equipment required to carry out this task shall be mounted neatly in the motor room and shall always remain on site.
- (f) The Contractor shall supply and install suitable structural steel beams with bearing plates for the mounting of the lift machine on the motor room floor, as well as supporting beams or deflector and secondary pulleys, as required. In the cases where machines are located below, the diverter sheaves shall be secured to the floor slabs and not to the overhead slabs, to prevent the transmission of vibration to the structure.
- (g) Anti-vibration mountings shall be provided to minimise the transmission of vibrations to the structure and to ensure the silent and smooth operation of all the equipment.

Tenderers shall describe the methods to be used to achieve the desired results.



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## 1.2. Hydraulic Drive

(a) An effective sound reducing material / vibration isolation shall be installed between the tank and the motor room wall.

(b) Provision shall be made for a safe method of moving the lift by hand in the event of a power failure and all the necessary equipment required to carry out this task shall be mounted neatly in the motor room and shall always remain on site.

(c) The lift machinery shall operate silently and without vibration. The lifts shall constantly operate and shall be maintained at noise levels not exceeding 56 DB (A). The noise level shall be considered acceptable if the noise does not exceed 56 DB (A) measured on the landing and in the car enclosure.

(d) Oil coolers shall be provided if it is required to maintain an acceptable oil operating temperature.

The driving machine and motor shall have sufficient capacity to operate the lift continuously at 100% of rated speed in both directions without overheating or hunting during levelling.

## 2. CONTROLLER

(a) Programmable solid-state operation and motion controller shall be provided to control the operation, the starting, the stopping and the speed of the lift motor and to apply the brake automatically if any of the safety devices operate or the power fails.

(b) All solid-state controllers shall be enclosed in ventilated sheet metal cabinets with integral blowers. All power resistors and heat generating transformers shall be mounted in separate enclosures if necessary to maintain the specified control panel internal temperature. The control cabinets shall be totally enclosed, vermin and insect proof, drip proof and dust proof to at least class IP42 of IEC 144.

(c) Contacts breaking heavy currents shall be provided with magnetic blowouts and arc chutes. Contact surfaces shall be of silver-to-silver except those for heavy currents, where carbon-to-silver or carbon-to-copper contact surfaces may be used.

(d) All terminals of the machinery and control gear shall be marked with distinctive letters or numbers, and corresponding markings shall appear on the contract drawings.

(e) All controllers shall be generic manufactured, assembled and supplied.

(f) As a standard, PLC lift controllers shall not be accepted. However, if these controllers are considered a generic product by the Representative/Agent and are able to meet the requirements of the specification, PLC controllers may be offered as an alternative if the following requirements are met:



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(g) Documentation stating that the control system has been subjected to extensive testing and is verified as safe, reliable, and fully complies with SABS 1545 and all national, local regulations and by-laws.

(h) If requested by the Representative/Agent, the Contractor shall provide the Representative/Agent with a full set of back-up software / software module and all associated maintenance related documentation including principal diagrams.

(i) Documentation from the PLC supplier is provided to verify the age of the model used, the date it is expected to be removed from the production line and the period the PLC supplier will guarantee parts and repairs.

(j) The Contractor shall verify that the PLC supplier is willing to maintain under a fully comprehensive agreement, the entire PLC unit(s) for at least 20 years.

### 3. CONTROL SYSTEM

(a) The control system shall be capable of constantly producing the performance criteria specified.

(b) The associated control equipment for each control system shall provide smooth acceleration and deceleration. In conjunction with the controller and machine, the system shall consistently provide the performance times specified.

(c) The drive control system shall be capable of decelerating the lift to stand still without a "Levelling in" or "creeping in" phase. Only lifts with direct floor approach capabilities shall be accepted.

(d) The motor drive unit shall provide a smooth lift performance including acceleration, steady velocity and deceleration plus levelling to various floors within the time allowance and levelling tolerances specified. This performance shall be consistent under all conditions of loading and in either direction of travel.

(e) The motor drive unit shall be equipped with all necessary monitoring circuits to maintain a safe and reliable operation. These shall include but are not limited to the monitoring of the load, direction of rotation, speed, supply voltage, and operating currents.

(f) The hoist motor shall be provided with a thermostatically controlled blower, if necessary, to dissipate the heat to maintain the equipment within the specified operating temperature range.

(g) The control system shall provide a smooth acceleration and deceleration with the levelling accuracy at all landings from no load to full rated load in the lift. This smooth operation shall be obtained for all lifts under stable conditions. A maximum of 0.8 seconds shall be allowed from door close to car start.



(h) The equipment shall be designed to operate at plus or minus 15% of normal feeder voltage and plus or minus 5% of feeder frequency without damage or interruption of lift service.

(i) The control system shall be designed to operate the hoist motor continuously at 100% of rated speed and at 100% of rated load in both directions without overheating or hunting.

#### **4. MACHINE ROOM INDICATORS / ROPE MARKERS, MONITORS AND TESTING TOOLS**

(a) Monitor and keyboard or handheld testing instruments for commissioning, pre-commissioning and fault analysis of the lift control system shall be provided and shall remain on site at all times. Each group of lifts shall be supplied with its own monitor and keyboard or testing instrument.

(b) As each lift travels through the lift shaft, a main hoisting rope marker shall indicate its floor level position by means of a mechanical selector attached to the machine control indicator. This indicator shall operate independently to the lift control and shall not be dependent on the lift supply for its operation.

(c) The lift control system shall be capable of generating error/fault reports. Error logs for each lift showing at least forty (40) of the most recent faults shall be accessible. The error log shall clearly indicate the type of fault, lift number, date, and time the fault occurred.

#### **5. SAFETY GEAR AND GOVERNOR**

(a) An over-speed governor, driven directly by an independent rope attached to the car, shall be provided in the motor room and shall be designed to operate the safety gear fitted to the car when the speed of the car, due to any cause, exceeds its normal maximum speed by more than a predetermined value. The tripping speed of the governor shall be selected with due regard to the rated speed. The tripping speed shall be approximately inversely proportional to the rated speed and shall for rated speeds ranging from 0,25m/s to 5,0m/s does not exceed the rated speed by more than 40% and 20% respectively.

(b) The safety gear shall be arranged to stop the lift whenever excessive descending speed is attained. Means shall be provided to cut off power from the motor and apply the brake prior to application of the safety gear. The safety gear shall be released by moving the lift in the "UP" direction.

(c) The governor rope system, including the governor and tension sheave, shall be arranged so that the carrier shall not be released due to system dynamics when the lift is subjected to an emergency stop in the "UP" direction.



(d) Car and counterweight safety gear shall be provided with a switch to cut off the power from the motor and apply the brake if the safety gear applies without tripping the governor.

(e) Rope guards and an electrical contact to monitor the rope stretch shall be provided on the governor tension sheaves.

## 6. ROPE GUARDS

Rope guards shall be used to cover machine sheaves, secondary or deflector sheaves and governor sheaves to cover moving sheaves and ropes. Guards are also required on rope hole openings in the machine room and secondary level floors to prevent objects from falling into the lift shaft. Guards shall be provided in secondary level floors where ropes and tapes or selector drives pass through to prevent accidental contact.

## 7. MOTOR ROOM VENTILATION AND LIGHTING

(a) The Lift Contractor must ensure that the lighting levels and ventilation of the machine room provided are sufficient.

(b) If any alterations have to be made the Lift Contractor must inform the Representative/Agent in writing, to ensure that it will be corrected.

## 8. MACHINE DATA SUBMITTALS

The Contractor shall supply all the relevant machine data to ensure the correct power feeder design, including, but not limited to the following:

- Lift numbers
- Capacity / Rated load [kg]
- Traveling Speed [m/s]
- Supply Voltage [V]
- Supply Frequency [Hz]
- Number of wires
- Motor kW rating [kW]



- 
- Roping
  - Full load UP acceleration [A]
  - Full load UP nominal speed [A]
  - Machine heat release per car [BTU/hr/car]
  - Power Factor [%]

## 9. LIFT SHAFT REQUIREMENTS

(a) In terms of SABS 1545 (Parts 1 and 2) provide the necessary rope or selector tape guards in pit areas and landing door unlocking devices on all landings.

(b) Provide safe Working Platforms in pits with depths more than two (2) metres and if necessary at the top of the shaft to create sheave-room platforms. The working platforms shall comply with SABS 1545 (Parts 1 and 2) safety requirements pertaining to the depth/height and free space of these areas.

(c) In terms of SABS 1545 (Parts 1 and 2), shaft lights are to be provided and installed by the Contractor.

## 10. CAR AND COUNTERWEIGHT GUIDE RAILS

(a) The guide rails for the car and counterweight shall consist of planed steel tees with milled, tongued and grooved joints. Metal splice plates shall be of a suitable length and fixing brackets for guide rails shall be provided at intervals not exceeding 2,4m. Guide rail fixings shall be located in such positions that when the car is at any landing, the guide shoes on the car will be at a fixing bracket. The bottom end of each guide rail shall be provided with a sole-plate fixed to the pit floor.

(b) All brackets shall be secured by means of approved expandable concrete anchor bolts of adequate size and length.

## 11. HOIST AND GOVERNOR ROPES

(a) The ends of the hoist ropes shall be properly secured to the car and counterweight cross-head or to the dead-end hitch plates on 2:1 roping, with adjustable rope shackles having approved sockets. Screw adjustment shall permit equalisation of the tension in all ropes.

**TERMS OF REFERENCE**

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(b) The lift car hoisting rope attachment / hitch shall be suitably vibration isolated to prevent rope noise from being transferred to the car enclosure.

(c) Governor ropes shall be in accordance with SABS 1545 (Parts 1 and 2) and the steel rope shall be specially designed for lift service. The two ends shall be securely fastened together at the lift and shall be attached to the safety operating mechanism. The governor rope shall pass over the governor sheave and over an approved tensioner sheave in the pit. An electrical contact shall be fitted to the pit sheave and shall stop the lift if the governor rope becomes slack or breaks.

## 12. COUNTERWEIGHT

(a) Each lift shall be suitably counterbalanced for smooth and economical operation. Cast iron or steel sub-weights shall be contained in a guided structural steel frame. The counterweight shall be equal to the weight of complete lift car plus at least 40% of the rated load. The weights in the counterweight frame shall be balanced with the weight equally distributed across the width of the frame to equalise guide pressures. The subweights shall be welded or fastened together as necessary to prevent rattling.

(b) Counterweight screen guards shall be provided at the bottom of the shaft to a height of 2150mm above the floor of the pit and approximately halfway up the shaft at the position where the car and counterweight pass each other.

## 13. CAR AND COUNTERWEIGHT GUIDE ROLLERS OR SHOES

The car and counterweight guide rollers/shoes shall constantly provide the ride quality as specified in Section 3 clause 11 of this specification.

### 13.1 Guide Rollers

(a) Each lift shall be provided with car and counterweight rollers guides. Each roller guides shall consist of at least three wheels with a durable resilient material, each rotating on ball bearings having sealed-in lubrication, assembled on a substantial metal base and so mounted as to provide continuous contact of all wheels with the corresponding rail surface under all conditions of loading and operation. The wheels shall run on three machined rail surfaces. The roller guides shall be properly secured at top and bottom on each side of the car frame and counterweight frame.

(b) The roller guides shall run on dry guide rails. Sheet metal guards shall be provided to protect wheels located on the top of the car and the counterweight. The roller wheels for the



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car shall not exceed 500-rpm and the roller wheels for the counterweight shall not exceed 1000-rpm at rated speed.

### **13.2 Guide Shoes**

If the speed and load nominated for a specific lift allows the use of guide shoes:

- (a) The lift shall be provided with car and counterweight spring loaded guide shoes. The spring tension shall be adjusted so as to maintain the lift in the centre of the rails and provide continuous contact with the corresponding rail surface under all conditions of loading and operation. The guide shoes shall be lined with a durable resilient material, which shall ensure a quiet and smooth ride. When oil buffers are attached to the bottom of the counterweight, additional guide shoes shall be installed on each side of the buffer cylinder frame.
- (b) The guide shoes shall run on lubricated rails. The guide rails shall be lubricated by a permanently mounted lubrication reservoir on top of the car and counterweight.

### **14. ELECTRICAL COMPENSATION**

A sufficient extra hoisting kilowatt rating in the hoist motor, machine, and motor generator capacity and control equipment may be provided so that effective electrical compensation for the weight of the hoist ropes and travelling cables shall be accomplished as the lift travels through the lift shaft.

### **15. COMPENSATION CABLES**

If Section 2 clause 14 (Electrical Compensation), cannot be achieved the following shall apply:

- (a) Compensating trailing cables or compensating chains encased in a synthetic sleeve (whisper flex) shall be provided.
- (b) Compensating cable restraining rings shall be provided in each pit and mounted on both the car and the counterweight buffer supports.
- (c) Compensation shall be fixed to the bottom of the counterweight and car in a position which shall allow the counterweight to remain balanced in the guides and exert equal pressure on each face of the guide at the four guide locating positions.



(d) The fixing of the compensation to the car shall be accomplished by a vibration isolating compensation hitch.

(e) Where compensating steel ropes are used for compensation, they shall be accompanied by a statically balanced compensation pit sheave and shall be mounted centrally between the guides.

## 16. BUFFERS

(a) Suitable oil, heavy spring or polyurethane buffers shall be provided for the car and counterweight and shall be so adjusted that in the case of over-travel, no parts of the car or counterweight will touch the shaft ceiling and that the retardation of the car does not exceed the limits as laid down in the SABS 1545

(b) Hydraulic buffers shall be so constructed and shall be installed to allow the fluid level to be checked easily. Easy access to the buffer for testing and maintenance purposes shall be possible without having to remove the counterweight pit screen.

(c) Energy dissipation type buffers shall have an electrical contact fitted to monitor the stroke (extended position).

## 17. PIT SWITCHES

Each lift pit shall be provided with watertight pit safety switches accessible from the entrance to the pits without the necessity of entering the pit and shall also be accessible from the pit while standing on the pit floor. The pit switch shall interrupt the power supply and apply the brake to hold each car so as to permit safe access to the pit. The pit switch shall be clearly distinguished from other switches that may be mounted in the pit area and the on/off position shall be clearly marked.

## 18. STOPPING DEVICES

(a) Normal terminal stopping devices shall be enclosed in dust-proof enclosures for each lift. These devices, once operated, shall bring the lift automatically to a smooth stop at the terminal landing.



(b) Final terminal stopping devices shall be positioned at the top and at the bottom of each lift shaft. A fixed cam securely attached to the lift shall operate these final limit switches. These limit switches shall be independent of any other stopping devices and shall positively open without the use of springs to cut off all power from the driving machine motor and brake. It shall prevent the operation of the lift in either direction. They shall be so located that they open at the time the lift or the counterweight engages the buffer.

## 19. TRAVELLING CABLES

(a) Travelling cables between the lift and the fixed lift shaft wiring shall be flexible and suitably suspended to relieve the strains in the individual conductors. All cables shall contain an approximately equal number of conductors or shall have equal flexibility.

(b) Travelling cables shall include two shielded pairs for each lift car to accommodate voice communication.

(c) The travelling cables shall be positioned in such a manner to eliminate the possibility of interference with the shaft information, selector tape or governor rope and all the necessary travelling cable protection shall be fitted to the shaft wall and shaft trimmers to prevent damage to the outer cover during normal travel.

(d) The travelling cables shall be neatly and adequately strapped to the side of the car enclosure and all the necessary protection shall be provided where the cables cross over metal extrusions.

(e) Travelling cables for the counterweight shall comply with the requirements of this section.

(f) Flat and round trailing cables shall be fixed and shall hang in accordance with the trailing cable manufacturer's requirements.

## 20. ELECTRICAL WIRING AND CONTROL COMMUNICATION

(a) All low voltage and control communication cables shall be run in separate ducts, conduits and trailing cables.

(b) Car top terminal boxes of ample size and car top inspection control units shall be provided.

## 21. AUTOMATIC SELF LEVELLING

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All lifts shall be provided with both a self-levelling and a re-levelling feature that shall automatically bring the lift to the floor landings within a tolerance of 3.0 mm under no load to full rated load conditions without hunting. Self-levelling shall, within its zone, be entirely automatic and independent of the operating device and shall correct over-travel and rope stretch. The lift shall be maintained level with the landing, irrespective of load and while loading and unloading.

## 22. LIFT CAR CONSTRUCTION AND ENCLOSURE

- (a) The lift car shall be an assembly consisting of the sling, the platform, and the cabin.
- (b) The sling shall be constructed of rolled steel angle or channel sections bolted or welded together to form a rigid framework, which shall be suitably braced and reinforced to withstand the operation of the safety gear without permanent distortion.
- (c) The car platform shall consist of a 3mm thick mild steel plate or 20mm thick hardwood floor laid on closely spaced steel channel sections welded to a steel frame which in turn shall be laid on rubber pads in a structural steel frame. Load weighing devices shall be incorporated where specified.
- (d) The cabin shall be designed as a fully enclosed car with a flat roof and solid full height panels on the sides and the back.
- (e) The cabin shall be securely fixed to its sling and platform in such a manner that the cabin is not subjected to strain in the event of an unequal distribution of load occurring over the floor area.
- (f) The entire car assembly, including the car frame and the car platform shall be constructed to operate free from objectionable squeaks or metallic sounds, comprising of a rigidly tuned resonance car frame and acoustically treated superstructure.
- (g) The following features shall also be embodied in the lift car:
- A continuous lighting system shall be provided along each side of the car. The lighting system shall consist of concealed, surface mounted, standard led luminaires, providing an illumination level of not less than 200 lux at 1000mm above floor level. Fluorescent tubes shall be 1500mm, 58 Watt or 1200mm, 36 Watt, colour "Warm White". Tubes and control gear shall be of the switch start type and shall bear the SABS mark. The width of the lighting troughs shall be the same as the front return panels and shall be covered by easily removable low brightness diffusers, mounted in purpose made hinged frames. One of the lamps in each trough shall be provided with an emergency battery/inverter unit by means of which the lamp will be operated for at least 60 min. in the event of a power failure. This lamp shall operate at full output under normal conditions.

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- Luminous car position indicator and "Up/Down" travel indicators installed above the entrance doors. Fixing clips for the attachment of canvas protective coverings which shall be supplied with the lift for the side and rear walls.
- Silent running squirrel cage, centrifugal flow exhaust blowers for passenger and goods/passenger lifts shall be mounted to draw air into car enclosure when doors are open and through door side clearances when doors are closed. The blower shall be mounted on the car top, draw air from the car through the perimeter of the suspended ceiling and exhaust the air into the lift shaft. The fan shall without exception, be capable of delivering not less than 0.3 cubic meters of free air per minute per square meter of floor area. The fan shall be switched via a toggle switch mounted in the car operating panel.

## 23. LIFT CAR FINISHES

Lift car finish detail shall be as specified in section 4 of this document.

### 23.1 Passenger & Goods/Passenger Lift

- (a) The entire car internal finish including the area above the suspended ceiling shall be installed and finished off to the highest standard. All finished work shall be smooth and free from wraps, buckles, squeaks and rattles and all joints shall be light proof.
- (b) All wall panelling shall be jointed with a pliable material /silicone to prevent squeaks generated by car panel movement / deflection.
- (c) A robust handrail, consisting of an "Intrad" poly-carbonate bumper rail, spaced 50mm off the panelling, must be provided across the rear and side walls of the lift car. The spacer blocks to which the hand and bumper rails are secured shall be fixed to the panels by means of 2 x M10 bolts with locknuts or other approved method.
- (d) Goods/Passenger lift car panels shall be manufactured from at least 1.5mm mild or stainless steel with at least two horizontal intermediate stiffening ribs and panels with a width greater than 400mm shall have vertical stiffening ribs at intervals not exceeding 200mm or equivalent construction.

## 24. FIXTURE FACEPLATES AND MOUNTING

- (a) Unless otherwise specified, all landing fixture faceplates shall be surface mounted and shall be manufactured of at least 3.0 mm thickness stainless steel, with bevelled edges for all lifts if square rectangle stainless steel face plates are offered. However, Contractors may offer



alternative landing fixture face plates if these faceplates are generic products and aesthetically acceptable to the Representative/Agent.

(b) The fixture faceplates in the lift car and at the landings shall be mounted with concealed security fastenings or fastenings requiring special tools to remove them, as approved by the Representative/Agent. Exposed fastenings shall match the material and finish of the faceplate.

(c) The following fixture face plates shall be located and sized in accordance with dimensions approved by the Representative/Agent:

- Car operating panels.
- Car position indicators.
- Car direction indicators.
- Landing push button stations.
- Landing position indicators and signals.
- Blanking-off plates

(d) Without exception the Representative/Agent shall approve the final design of the fixture faceplates before placing the order or manufacturing of this equipment.

## 25. CAR AND LANDING DOOR OPERATOR

(a) Only door operators with the capabilities of coping with medium to heavy traffic shall be accepted and the type of door operator offered shall be clearly shown in the tender submitted. The door system shall be capable of controlling the position of the doors at any given moment and shall constantly produce a smooth, accurate and efficient operation.

(b) The doors on the lift car and at each landing opening shall be opened and closed quietly and smoothly by an electric operator.

(c) The motion of the door operator shall be accomplished with arms and appropriate linkages to the approximate centre of gravity of the driven door panel.

(d) Each landing door shall be equipped with Electro-mechanical interlocks so that the lift can operate only when the interlock circuit is established. Landing door locks shall meet the SABS 1545-1 safety requirements. All work and material related to this Sub-Section shall form part of the Contractor's scope of works.

(e) An independent auxiliary self-closing device shall close each landing door panel whenever the door is not in the closed position and the equipment relating to the car and landing door system does not restrain it.

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- .....
- (f) An electric contact for the lift car door shall be provided which shall prevent the lift moving away from a landing unless the door is in the closed position.
  - (g) An electrical contact shall be fitted to the non-driving car door if its linkage is dependent on a wire rope or chain.
  - (h) Emergency Triangle access key mechanisms shall be provided on each entrance.

## 26. LIFT DOOR HANGERS

Hangers shall be equipped with ball bearing adjustable rollers to take the up-thrust of the doors. The hangers and rollers shall be designed to accommodate the size and weight of the doors operated with a high speed door operator.

## 27. CAR DOOR CONTROL

### 27.1. Car Door Motion Controllers

- (a) Car door motion controller's dependent on resistors, rheostats or switches to control the opening and closing motion shall not be accepted. The car door motion controller shall be capable of controlling the position of the doors at any given moment and shall constantly produce a smooth, accurate and efficient operation.
- (b) (For Group controls only) Adjustable hardware or software timers shall be provided to hold the doors open for the dwell times specified below. The tabulated dwell times are initial adjustment standards. Further adjustment to suit specific traffic movement capabilities and the arrangement of car and landing stations shall also be possible. The first passenger dwell times are those measured from door fully open to door start-to close. The second and succeeding dwell times are from restoration of the light beam to doors start to close from its fully reopened position.

Passenger Stops for Stops for Conditions Car Call Landing Call

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First Passenger 2.0 sec. 3.0 sec.

Succeeding Passengers 1.0 sec. 1.0 sec.

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Stops at the high or low car call reversal floors shall be considered as landing call stops.

.....





(c) If doors are held open for an adjustable period by a passenger standing in the entrance or by constant pressure of the door open button, a buzzer shall sound and the doors shall start to close at a reduced speed and force level. When the doors touch an obstruction, they shall re-open.

## 27.2. Door protection devices

(a) A non-retractable electronic infra-red/ultra-sonic protective leading edge shall be provided and shall extend at least 2100-mm above the platform and its active surface/area shall project beyond the front edges of each leading car door panel. Should this device come in close proximity, or touch a person or object whilst the car doors are closing, the car and shaft doors shall return to their open position. Manual reversal of the doors while the lift is on automatic operation shall be accomplished by pressing a door open button in a car-operating panel. Should this device be activated while the car doors are closing, then the car and shaft doors shall return to their open position.

(b) Without exception the Contractor shall demonstrate on the day of Completion that the door closing pressures comply in full of the SABS 1545 Part 1 and Part 2 under normal and forced closing conditions.

(c) The door protection device shall have the capabilities of detecting metal/plastic trolleys.

## 28. CAR PLATFORM

The car platform with enclosure of each lift shall be balanced by arranging balancing weights to equalise the guide pressure (front to back and side to side) so that the pressure on any guide shoe roller does not exceed 18kg without load in the car. (Statically balanced).

## 29. LANDING ENTRANCES

(a) Each lift shaft landing entrance assembly shall consist of unit frame, door panels, fascia, sill, hanger, closer and interlock. The installation shall comply with the applicable code requirements.



(b) As a standard all lift landing equipment including doors, signal faceplates shall have a two (2) hour fire rating. The Contractor shall provide the relevant SABS test certificates for Class "C" type landing door equipment.

### 30. DOOR PANELS

(a) The door panels for all openings shall be constructed of at least 1.5 mm thick mild or stainless steel. Continuous stiffener channels must be provided to the top, bottom and edges at the faceplates. The bottom of each door panel shall be provided with removable laminated phenolic guides, which run in the sill slots.

(b) Door panels shall be constructed to operate free from squeaks or metallic sounds and shall be adequately treated with a sound deadening material to produce a quiet door operation under all operating conditions.

(c) The leading edge of the car and landing doors shall have an interlocking profile with rubber stoppers (top and bottom) to prevent the door panels closing metal to metal. Add on rubber profiles shall not be accepted.

(d) All landing door site guards shall have a stainless-steel box type construction for added rigidity.

(e) Goods/Passenger Lift and Access, Goods Only Lift Car Doors

(i) Car and landing sills shall have additional angle iron supports (reinforced sills) to accommodate the applicable point loads.

(ii) Landing and car door panels shall have reinforced sliding shoe supporting sections.

(iii) Only reinforced sliding door panels shall be accepted. Door panels shall be at least 1.5 mm thick Mild Steel or Stainless Steel with at least two horizontal intermediates stiffening ribs.

### 31. SILLS AND SUPPORT ANGLES

The landing sills for all openings shall be of narrow extruded aluminium. Grooves in all sills for the door guides shall be machine planed with minimum clearances for the guides. The sills shall be supported on steel angles provided by the lift Contractor and securely fastened to the building floor construction.



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## 32. TOE GUARDS

Toe guards shall be of at least 1.5 mm thick steel and shall be installed on all landings. They shall extend the full width of the door opening and be gradually bevelled to the wall. The straight vertical portion of the guards shall at least be 400 mm long or as in the case of the lowest landing shall equal the distance travelled by the car sill from the bottom terminal landing to when the car is on the fully compressed buffer.

## 33. CAR POSITION INDICATORS

(a) Electronic LED digital readout position indicators shall be incorporated in each lift car operating panel at a height of not less than 2100 mm above the floor. As each lift travels through the lift shaft, its position shall be indicated continuously by the illumination of the numeral or letter corresponding to the landing that the lift is stopped at or is passing.

(b) The digital readout shall be at least 50 mm in height.

## 34. CAR OPERATING PANEL (COP) FOR PASSENGER AND GOODS/PASSENGER LIFTS

(a) The operating device for each lift shall include a series of buttons, numbered to correspond to the active landings served and various additional buttons and key switches, including emergency alarm, intercom, door open and door close buttons, independent control, fire control and rear door control key switches.

(b) The car call buttons shall be numbered to correspond to the landings served or the numbers shall be engraved with recessed background adjacent to the car buttons.

(c) Car, landing and emergency buttons shall be of the Micro push operation type and shall be approved in terms of the Occupational Health and Safety Act. Each button shall be clearly marked with its corresponding floor position. The demarcation shall either comprise a raised or recessed numeric or alphabetic character. Car call buttons shall have Braille incorporated into the button unit.

(d) The car operating station shall be paraplegic friendly and shall be located so that all operating and emergency buttons are located between 1500 mm and 900 mm above the car platform. The emergency buttons and switches shall be mounted at the bottom and the call buttons in numerical order starting above the emergency button and numbering from left to right.



- (e) Swing front return panels used in the passenger car enclosures shall be arranged so that the call buttons and the control and signal devices are substantially flush to the vertical surface and shall be mounted on the return panel. The wiring to the individual components shall permit the panel to swing open for maintenance purposes.
- (f) A second rear door car-operating panel for lifts with two entrances shall operate independently to the front panel and shall comply in full with this section.
- (g) As a standard the lift signage shall include No Smoking, Load, Passengers, Certificate Number and Lift Number / Designation, as required by the applicable standards and regulations. All signage shall be engraved into the Car Operating Panel.
- (h) Without exception the Representative/Agent shall approve the final design of the car operating panel before placing the order or manufacture of this equipment.
- (i) The number of Car Operating Panels per lift shall be as nominated by the Representative/Agent.
- (j) The button markings/engraving shall be such that it does not fade or wear with continuous operations. The markings, whether engraved or raised shall remain clearly visible and the coloured epoxy shall remain intact throughout the life of the button.
- (k) All key switch cylinders in the fixture faceplates of landing stations, car stations and supervisory control stations shall be master keyed with removable core cylinders (KABA type or equivalent).

## **35. CALL ACKNOWLEDGING LIGHTS**

All car and landing buttons shall be of the call acknowledging type. The registering of a call button shall illuminate the button to acknowledge that a call has been registered. Incandescent indicator lamps shall not be accepted.

## **36. LANDING CALL BUTTONS**

### **36.1 Passenger and Goods/Passenger Lifts**

(a) A riser of landing micro push button stations shall be provided. Terminal floors shall contain a single button station and intermediate floors shall contain both up and down buttons. Pressure on the button in one fixture shall cause the electronic illumination of the corresponding button unit in the other fixture at the same landing. Incandescent button illumination shall not be accepted.



(b) Landing push buttons shall be of the Micro push operation type and shall be approved in terms of the Occupational Health and Safety Act.

(c) The location of the centreline of each landing micro push button fixture shall be located at 1050 mm above the floor.

(d) Each button shall be clearly marked with its corresponding direction of travel. The demarcation shall either comprise a raised or recessed approved symbol.

(e) The button markings/engraving shall be such that it does not fade or wear with continuous operations. The markings, whether engraved or raised shall remain clearly visible and the coloured epoxy shall remain intact throughout the life of the button.

Buttons shall have Braille incorporated into the button unit.

### **37. WAITING PASSENGER LANTERNS AND GONGS**

(a) Provide an up and down, LED digital readout electric indication waiting passenger lantern at each intermediate landing and an up or down single indication lantern at a terminal landing of all lifts. The lanterns shall be mounted above the head jamb or beside the side jamb of each typical entrance. Incandescent indicator lamps shall not be accepted.

(b) Supply and fit adjustable electronic arrival gong to each entrance. The fixture face plate shall contain an approved pattern of slots to enable the transmitting of the sound from within the shaft to the lift foyer. In terms of the paraplegic/blind person's requirements the gongs shall have a different tone when announcing cars travelling in the up and down directions - two "gongs" for down and one "gong" for up.

(c) As soon as a lift has reached a predetermined distance from a landing and is going to stop at that landing, the corresponding waiting passenger lantern shall be illuminated and the gong shall sound whether a landing call has been registered. The waiting passenger lantern shall remain illuminated until the lift leaves the landing or if the car becomes filled, whichever occurs first.

(d) The type and design of the landing signals shall take into account long lift lobbies associated with groups of lifts installed adjacent to each other. After installation the landing direction and/or announcing arrows shall be clearly visible from any position within the lift lobby. It shall be the Contractor's responsibility to inform the Representative/Agent if the selection of landing signal design is not going to achieve the visual requirements detailed under this section.

(e) As an exception and if specifically requested by the Contractor and accepted in writing by the Representative/Agent, adjustable gongs may be fitted to the car. Gongs fitted to the car shall be positioned in the header section of the car and the sound shall be contained and



directed towards the entrance so as not to be transmitted to the floors above and below the lift. The gongs shall further only sound when the lift is within 200 mm from the landing level.

(f) As an exception and if specifically requested by the Contractor and accepted in writing by the Representative/Agent, announcing arrows may be fitted in the side jambs or incorporated in the push button unit. However, this option shall be restricted to Simplex and Duplex units with a single riser of buttons.

### **38. LANDING POSITION INDICATORS**

(a) Electronic LED digital readout position indicators shall be provided over the architrave of each lift in the main lift lobby. As the lift travels through the lift shaft, its position shall be indicated continuously by the illumination of the numeral or letter corresponding to the landing that the lift stopped at or is passing.

(b) The final number of landing indicators required for each lift and their locations shall be as approved by the Representative/Agent.

(c) The digital readout shall be at least 50 mm in height.

(d) Landing position indicators shall not illuminate if the lift can no longer respond to calls as a result of a fault condition or when undergoing routine maintenance.

### **39. LANDING DOORS AND ARCHITRAVE FINISHES**

(a) All stainless steel landing doors and architraves shall be cleaned prior to final acceptance and receive a coat of an approved stainless steel polish.

(c) When spray painting the landing doors and frames, the Contractor shall ensure that the landing door panels are satisfactorily prepared before the final coat of Duco is applied.

(d) Floor designation shall be permanently marked on the inside of the landing doors (shaft side)

### **40. LIFT INTERCOM SYSTEM**

Only if Specified in Section 4 of this Specification



- .....
- (a) Provide an intercommunication system complete with talk-back speakers with all required auxiliary equipment, wiring and a six (6) hour minimum back-up power supply.
  - (b) Lift travelling cables shall contain two (2) shielded pairs of conductors for each car for the intercommunication system.
  - (c) Terminal strip boxes for all wiring shall be provided.
  - (d) All wires in the wiring system shall be shielded without exception.
  - (e) Wiring between all master stations in the building shall comply with manufacturer's recommended standards.
  - (f) Provide one sub-station in each lift car, one master station for each motor room and one master station for the security control room.
  - (g) The voice link shall constantly produce a sound/speech quality comparable to that of the normal Telkom telephone network. All provisions to adequately address interference in the lines shall be included. The intercom master stations shall include an indicator system/panel to indicate the lift car initiating the emergency call and an "All Call" feature to allow for communication to all lifts at the same time.
  - (h) The lift intercoms for all the lifts shall be wired back to a common security/control room centrally located.
  - (i) The Master Stations shall be capable of accommodating all the lifts covered under this Specification. The individual lift's designation and its call code shall be clearly and neatly displayed on the Master Station.

## **41. LOAD SWITCHES**

All load switches and sensors which influence the control, and the drive shall be adjusted in order to achieve an optimum operation, and their operating loads documented for future reference on the data sheet or certificate of compliance SABS1545 - Annex "A". These load contacts may include but are not limited to the over-load, minimum load and the landing call bypass functions.

## **42. CAR TOP REQUIREMENTS**

### **42.1. Car Top Working Platform**



Securely fitted working platforms of adequate strength shall be provided on the top of the car roof to create a level and safe working area. The platform shall be free of any electrical cabling and lift equipment. The car roof shall not be regarded as a working platform.

## 42.2. Car Top Guard Rails

In terms of SABS 1545 the car top shall be provided with a balustrade (guard-rail) where the free distance in the horizontal plane beyond and perpendicular to its outer edge exceeds 300 mm.

# SECTION 3 – OPERATIONAL REQUIREMENTS

## 1. SIMPLEX SELECTIVE-COLLECTIVE AUTOMATIC OPERATION

### 1.1 Passenger & Goods/Passenger Lifts

(a) The operation of lifts shall be from the landing buttons and from the call buttons in the car-operating panel. Single call buttons shall be mounted at each terminal landing and "up" and "down" buttons at each intermediate landing.

(b) The operation shall be such that momentary pressure on one or more car or landing buttons, other than those for the landing at which the lift is standing, shall start the lift, provided the interlock circuits are established and cause the lift to stop at the first landing for which a car or landing call is registered corresponding to the direction calls registered and these stops shall be made in the order in which the landings are reached, irrespective of the sequence in which the calls are registered provided the call for a given landing is registered sufficiently in advance of the arrival of the lift at that landing to permit the stop to be made.

(c) If there are no car calls and the lift starts up in response to several down calls, the lift shall proceed to the highest down call and then reverse to collect the down calls. Up calls shall be collected similarly when the lift starts down in response to such calls. If the lift stops for a landing call the direction of travel shall be anticipated and maintained for a predetermined interval and independent of additional car and landing calls registered in the opposite direction of the anticipated travel.

(d) If down landing buttons are pressed while the lift is travelling up, the lift shall not stop at these landings, but these calls shall remain registered. After the highest car and landing calls have been answered the lift shall reverse automatically and respond to car and landing calls registered below the lift. When travelling down, the lift shall not respond to up landing calls, but these calls shall remain registered and be answered on the next up trip.

(e) After the lift has answered the last call and after a pre-set time period, normally 20-seconds, the lift shall be dispatched to a nominated Boarding Floor. Provision must be made to have this automatic return feature disabled if required.





## **2. AUTOMATIC OPERATION**

### **2.1 Automatic Landing By-pass**

When a car load exceeds a predetermined weight level, it shall automatically bypass all landing calls in the direction of service and shall respond only to car calls. The default setting for this predetermined level shall be 65% of rated load.

### **2.2 Car Call Cancelling**

When the car has responded to the last call in the up or down direction, the car calls shall automatically be cleared from the system to maintain optimum efficiency.

### **2.3 Load Weighing**

Each lift shall be provided with a strain gauge load weighing device to ensure optimum service. This device shall be capable of constantly monitoring the load on the car platform with an accuracy of  $\pm 5.0$  kg.

### **2.4 Anti-nuisance Control**

When a lift with a loading level of less than 20 kg arrives at a landing, all car calls shall be reset automatically.

### **2.5 Motor Generator Set Time-out**

When a lift does not receive a demand dispatch at the dispatching landing for a software adjustable time period up to 10 (ten) minutes, set initially at 5 (five) minutes, the motor generator set, if provided, shall stop and shut down the car lighting and ventilation automatically after it has opened the car and landing doors. If solid-state motion control is provided, timing devices shall be provided to accomplish this shutdown.

When a dispatch demand is received from the supervisory system by a lift whose generator is stopped, its motor generator shall automatically restart and re-energise the car lighting and ventilation circuits.

## **3. OPERATION WITH INDEPENDENT SERVICE**

(a) A two position key operated switch, with removable cylinder as approved by the Representative/Agent and master keyed to the building system, shall be mounted in the main car operating station of each lift specified for Independent Service Operation.



When this switch is in the on position, the removal of the key from the barrel shall be prevented and the lift shall be operated from the car buttons only and independent of all other automatic or special operation modes.

(b) The power operated car and lift shaft doors shall remain open when a lift is at a landing until a car call for another landing is registered and the door close button is pressed. If another car call has been registered, it shall be necessary, after each stop, to repress the door close button to affect the closing of the doors.

(c) It shall further be possible to activate and de-activate this service through the remote monitoring control station.

#### **4. OPERATION WITH INSPECTION**

A two-position switch shall be provided on top of the car enclosure to operate each lift manually during adjustment, inspection, maintenance, and repair. The operating buttons shall be of the continuous pressure type and the speed of the car shall not exceed 0.63 m/s. It shall operate the car only when the car doors and all lift shaft doors are closed, and all safety circuits made.

#### **5. EMERGENCY OPERATION**

A two-position switch shall be provided in the motor room to operate each lift manually during emergency conditions, adjustment, inspection, maintenance, and repair. The operating buttons shall be of the continuous pressure type and the speed of the car shall not exceed 0.63 m/s.

Emergency operation shall operate the car only when the car doors and all lift shaft doors are closed and when the inspection control on top of the car is switched to normal operation.

However, it shall be permitted to override the final limits, safety contacts and governor contacts.

#### **6. FIREMAN'S OPERATION**

##### **6.1 Fire Recall – Level-1**

(a) All lifts shall be equipped with Fire Control Level-1 and each group or single lift shall be equipped with a common Fire Control switch to recall the lifts (non-stop) to the nominated evacuation landing, where it shall remain parked with open doors. The switch shall be mounted in a box with a break-glass front marked "Lift Fire Control".



(b) When the switch is activated, cars travelling away from the designated landing, shall reverse at the next served floor without opening its doors, and return non-stop to the designated fireman's floor.

(c) An illuminated indicator fitted inside the car shall instruct the passengers to evacuate the lift at the designated evacuation floor.

(d) When on Standby Power the Fire Control operation shall operate as detailed under this section in conjunction with the Emergency Control sequenced evacuation shown under Section-3 Clause 7 (Operation with Standby Power) of this Specification.

## 6.2 Fire Recall – Level-2

(a) A Fire Service Key Switch mounted in the car operating panel shall be provided in each lift operating as a Fireman's Lift. Lifts operating as fireman's lifts shall be as nominated by the Representative/Agent.

(b) A lift operating on Fire Service shall respond only to its own car call while ignoring all landing calls. When the lift arrives at a landing not being the main landing, its car and landing doors shall remain closed. If the door open button is pressed, the doors shall open and continue opening. If the door open button is released, the doors if not yet fully open, shall immediately reverse direction and close. Once the doors have been fully opened via the door open button, they shall remain open until a further car call has been registered and the door close button has been pressed.

(c) If more than one car call has been registered, all the remaining car calls shall be cancelled once the lift stops at the nearest car call in the direction of travel.

(d) If the lift remains stationary at a selected floor away from the main landing with the doors closed for an adjustable time initially set at 30 (thirty) seconds, the lift shall return to the fire recall floor automatically. When the lift returns to the main landing, the doors shall open automatically and remain open awaiting a further car call.

(e) All the car door horizontal and vertical light rays, ultrasonic and infrared detectives, shall be made inoperative during the firemen's service operation.

(f) It shall further be possible to initiate the fire control operation through the remote monitoring control station or fire detection system. The Fire and Security Sub-Contractor shall provide a potential free contact in each lift motor room to indicate a fire condition.



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## **7. OPERATION WITH STANDBY POWER**

### **7.1 Emergency Recall to Main Landing – Level-1**

(a) Provide a standby power operation which recognises the feeder arrangement and the standby power operation which automatically evacuates all lifts on each affected feeder by operating 1 (one) lift at a time to the main dispatching landing without responding to car or landing calls. The system shall subsequently permit automatic and manual selection of any lift to be released for normal operation with standby power. If any lift fails to return to its main landing within 90 (ninety) seconds, it shall automatically be disconnected from the automatic return feature.

(b) The standby power supply shall be sized to run a predetermined number of lifts simultaneously. The Electrical Sub-Contractor shall provide the number of lifts to run and the maximum kVA available for emergency operation. Alternatively, if this information is available it shall be as nominated by the Representative/Agent.

(c) In the event of a total failure of normal power, the feeder or feeders in each group shall be transferred to the standby power source. A potential free normally closed contact shall be provided in the lift motor rooms to indicate the transfer to the standby power source. The potential free contact supplied by the Electrical Sub-Contractor shall open (Fail to safety) when on standby power and the lifts will commence their sequenced evacuation.

(d) The lifts shall be capable of operation on standby power at minimum of 100% of rated speed in both directions and at a maximum load of 100% of rated capacity for a period of 10 (ten) minutes without overheating.

(e) All connections to the lift controls for standby power operation shall be provided in the appropriate machine rooms and all the necessary interlocking interconnection wiring among machine rooms shall be provided under this section.

### **7.2 Manual Release – Level-2**

(a) Once all the lifts have been evacuated in sequence to the selected main landing, a predetermined lift or lifts shall be released for normal operation automatically or manually via a remote monitoring station. All manual or automatic release shall be prevented until the automatic evacuation covered under Section-3 Clause 7.1 has taken place.

(b) The cars nominated / selected to run on emergency power shall not be fixed and it shall, furthermore, be possible to change the lift / lifts selected to run on emergency operation without making major changes to the lift wiring or control circuitry.

(c) In all instances the fireman's lift shall have priority when selecting a lift or lifts to run on emergency power.



## 8. OVERLOAD PROTECTION

Without exception, overload protection shall be provided (SABS1545-Part-1 1999 & EN81 Code 1997). When the load in the car enclosure exceeds the rated load, a buzzer shall sound, an overload indicator shall illuminate in the car operating panel and the lift doors shall remain open and the lift blocked from travelling. The overload device shall not be active during the travel.

## 9. DRIVE CONTROL

(a) A fully regulated distance dependant closed loop VVVF, DC Ward Leonard, DC Direct Drive or Hydraulic drive control system shall be provided and shall constantly maintain the floor levels and ride quality as specified. Lift acceleration, nominal speed and slowdown phases shall constantly be monitored and controlled against, and with reference to, distance, speed, current and voltage feedback loops. The lift drive shall be capable of bringing the lift to a standstill after a travel without a "creeping in" or "levelling in" phase i.e. a direct approach.

(b) Driving machine and motor shall be controlled to operate the lift continuously at 100% of rated speed in both directions without overheating or hunting during levelling.

## 10. RIDE QUALITY AND PERFORMANCE CRITERIA

### 10.1 Ride Quality Objective

The main objective is to be able to determine a ride standard and to maintain that standard by routine measurement and adjustment as necessary. The standards nominated are for lifts with rated speeds of 5 m/s or higher. Lower speed lifts should be able to perform better in terms of ride quality, and at worst the same parameters should be applied.

### Vibration

Vibration, also sometimes referred to as "quaking", is measured in three dimensions:

- Lateral quaking from front to back.
- Lateral quaking from side to side.
- Vertical vibration (up and down).



The vibration levels are measured as acceleration levels of the car floor using an accelerometer. Measurements are expressed in terms of mm/s<sup>2</sup>, milli-g or LAL. – 9.81 mm/s<sup>2</sup> = 1 milli-g or LAL.

Recording accelerometer tests in the horizontal plane shall be conducted prior to practical completion on each lift travelling at rated speed the full length of the shaft between terminal landings in both up and down directions with a maximum load of 230 kg located in the centre of the platform. Recordings shall be taken on the platform in the plane of the car guide rails and perpendicular to the plane of the car guide rails.

One set of recordings for each lift shall become the property of the Employer as a permanent record. If these tests show that the equipment is in any way defective, at variance with the specified requirements, or objectionable in any operation, the Contractor shall make any change necessary to remedy these defects. All expenses for carrying out this remedial work and the costs of all subsequent tests including labour, material, test equipment, on site observations, etc, shall be for the Contractor's account.

Notice of all tests shall be given to the Representative/Agent in writing at least 96 hours prior to conducting the test.

#### (b) Noise Levels

Noise levels in the car are measured during operation of the lift. Maximum and mean dB (A) figures is measured.

### 10.2 Performance Criteria

After practical completion the Contractor shall confirm that the lift equipment performs in accordance with the contract documents and shall provide documentation to substantiate accordingly.



## **SECTION 4 – DETAILED LIFT REQUIREMENTS**

### **1. GENERAL REQUIREMENT**

Tenderers shall offer lifts designed to comply with the technical requirements and the as described in Sections 2 and 3 of this specification. The equipment offered shall be suitable for continuous operations under the following conditions:

### **2. Electricity Supply**

3-phase, 4-wire, 50HZ, AC with nominal voltage of 400/231V varying between 95% and 105% of the nominal voltage.

(b) Ambient Air Conditions

Max. Temperature : 30 [°C]

Min. Temperature : 2 [°C]

Max. Relative humidity : 40 – 60 [%]

© Altitude of site

1340 m above sea level

All lifts shall comply with the latest edition of SABS1545-1 and SABS-1545-2 specifications.

Copies of ISO9002 accreditation shall accompany the tenders submitted.

The lift installation shall comply in all respects with the requirements of the Occupational Health and Safety Act, Act 85 of 1993 as amended.

### **3. DESCRIPTION OF LIFT SYSTEM**

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**SPECIFICATIONS:**

**TYPE OF LIFT:**

Passenger Lifts

Goods Lifts.

Stair-climber

Horizontal disabled lift

**NUMBER OF ELEVATOR IN GROUP: N/A**

**LOAD / PASSENGERS:**

Pass: 1000 kg. 13 Persons.

Goods: 1000 kg. 13 Persons.

**RATED SPEED:**

Passenger: 1.0 m/s

Goods: 1.0 m/s

**TRAVEL:** Existing

**NUMBER OF STOPS / FLOOR SERVED:** As per attached schedule.

**NUMBER OF LANDING OPENINGS:** Same as number of stops.

**NUMBER OF CAR ENTRANCES:** One (1), In Line.

**FLOOR DESIGNATIONS:**

Up standardized peer facility

Example ETC 2B,1B,B,LG,G,1,2,3,4,5,6,7 ETC.

**POWER SUPPLY (Retain existing):**

400 V +/- 10% 50 Hz 3ph.





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: 4 wire 3PE / 5 WIRE 3PNE

: 230 V 50 Hz 1 ph. (2 wire + earth)

**INTERCOM / COMMUNICATION:**

New Intercom System. 3 x way. (Lift, control station  
& Security area.)

**CONTROL SYSTEM :**

Microprocessor Control and Variable Voltage  
Variable Frequency Drive systems with brake resistance

**MOTORROOM DETAILS:**

**MACHINE ROOM POSITION:**

In the lift shaft on highest floor served.  
(Motor room less)

**SHAFT DETAILS:**

PIT DEPTH: Existing. See drawings.  
OVERTRAVEL / HEADROOM: Existing.  
SHAFT SIZE: Retain existing shaft.

**CAR DETAILS:**

CAR SIZE: Pass: 1600 mm w x 1400 mm d.  
Goods: 1600 mm w x 1400 mm d.

**DOOR SIZE:**

Pass: 1000 mm wide x 2100 mm high.  
Goods: 1100 mm wide x 2100 mm high.



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All new VVVF System.

**CAR OPERATING PANEL:** Mechanical with Braille.

**LANDING DETAILS:**

LANDING DOOR: Automatic Stainless Steel Panels.

LANDING DOOR FRAMES: Box Type Door Frames in Hairline stainless steel.

LANDING BOARDS: Mechanical Buttons. Illuminated

LANDING INDICATORS: Indicator, Gong & Direction on all floors.

LANDING SILLS: Aluminium

ENTRANCE PROTECTION: Electronic Edge.

LIFT CAR DESIGN AND CONSTRUCTION:

CAR DOOR: Automatic Hairline stainless steel.

FRONT WALL: Hairline stainless steel.

SIDE WALLS: Hairline Stainless Steel with Handrails.

BACK WALL:

Hairline Stainless Steel. Mirror above rear handrail.

SKIRTING: Painted Steel.

FLOORING: Artificial Stone.

CEILING/LIGHTING: Stainless Steel with spot lights.

VENTILATION: Fan

STRUCTURAL PROVISION. : Use Existing as is.

SPECIAL REQUIREMENTS: Nil.

DEVIATIONS: Nil.



## SECTION 5 – BILLS OF QUANTITIES

### 1. IMPORTANT NOTES TO TENDERERS

- a. This Schedule of Quantities forms part of the Contract Documents, as listed in the Schedule of Documents, and shall be read in conjunction with the General Conditions, the Specifications and the Drawings, and must be submitted, duly completed, on the closing date of Tenders.
- b. Tenderers must complete the Schedule of Quantities and fill in the unit rate and total amount for each item. Errors of extensions as entered in the Schedule may be corrected by the Engineer. Rates may be adjusted, as the total tender price submitted will be binding.
- c. The short description of items in the Schedule of Quantities are for identification purposes only, the work covered by the items being fully specified in the relevant clauses in the Specifications. The tenderer must therefore allow in the unit price for ordering, obtaining, supplying, delivering to site, installation and commissioning of the relevant equipment with their accessories.
- d. The quantities reflected in the Schedule of Quantities are approximate only and do not necessarily represent the actual amount of work to be done. Allowance for off-cuts and scrap shall be allowed for in the unit rates. The Final Contract Price for the completed Contract shall be computed from the actual quantities of authorised work done to the satisfaction of the Engineer, valued at the prices tendered against the respective items in the Schedule of Quantities, and shall include such authorised provisional amounts and items of extra work as have become payable in terms of the Contract Documents. Extra material shall not be paid for and shall be removed from site.
- e. Tenderers are advised to check their items extensions and total additions. If many arithmetical errors occur in the priced Schedule of Quantities, it may disqualify the tenderer.
- f. Except where Sum Amounts are required or where Provisional Amounts have been indicated, the Tenderer shall enter an applicable rate in the Rate Column of the Schedule of Quantities for each scheduled item. He shall also enter an applicable sum in the Amount Column for each scheduled item. Should the Schedule not be completed in the manner herein specified, the tender may either be rejected, or the Contractor will not be paid for items against which rates or sum amounts, as applicable, have not been entered. In the event of the latter



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procedure items not paid for will be regarded as covered by other rates entered in the Schedule of Quantities.

g. Payment based on the rates tendered in the Schedule shall cover all the services and incidentals included in the works covered by the Contract and shall be made in accordance with the General Conditions, the Specifications and the Agreement pertaining to the Contract.

h. Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Documents, all costs shall be deemed to have been provided for and included in the unit rates and sum amounts tendered for the items scheduled in the Schedule of Quantities and separate additional payment will not be made.

i. Unit prices quoted in the Schedule of Quantities must include for such small installation materials as are required for the complete installation in accordance with the Specifications.

j. Writing in the Schedule must be done in black to facilitate clear photocopying.

k. The Contractor shall keep record of all material delivered to site, and shall submit such record to the Engineer at every site inspection. Material not installed shall be kept in the site yard or store and the material shall be kept readily available for inspection.

l. Application for payment, accompanied by supporting documentation, shall be submitted to the Engineer on a pre-determined date which date shall be a suitable date in each month, agreed upon by all parties concerned with the payment. Claims for additional work in a particular month, for which no written instruction has yet been issued, if applicable, must also accompany the monthly application for payment. Late claims will not be considered.