



COEGA DEVELOPMENT CORPORATION (PTY) LTD

CONTRACT No. CDC/73/26

FOR

**COMPLETION OF THE CATH LAB AND CSSD AT LIVINGSTONE PE PROVINCIAL
HOSPITAL COMPLEX**

PROJECT DOCUMENT

BOOK 2 of 2: SCOPE OF WORKS

CLOSING DATE: 09 NOVEMBER 2026

PREPARED FOR:

COEGA DEVELOPMENT CORPORATION (PTY) LTD

CDC's Main Office,
Coega Business Centre,
Cnr. Alycon Rd and Zibuko St,
Zone 1, Coega SEZ,
GQEBERHA
6001

NAME OF BIDDER: _____

Book 1 of 2

TABLE OF CONTENTS

PART C3: SCOPE OF WORKS	2
C3.1 DESCRIPTION OF THE WORKS	3
C3.2 DRAWINGS AND SPECIFICATIONS.....	12
 PART C4: SITE INFORMATION	 24
C4.1 SITE LOCATION	25
 PART C5: ANNEXURES	
C5.1 ANNEXURE A: PROJECT OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS	26
C5.2 ANNEXURE B: BASELINE HAZARD IDENTIFICATION AND RISK ASSESSMENT	27
C5.3 ANNEXURE C: PROJECT ENVIRONMENTAL SPECIFICATIONS	28
C5.4 ANNEXURE D: SOCIO-ECONOMIC DELIVERABLES CONSTRUCTION LABOUR MANAGEMENT	29
C5.5 ANNEXURE E: SMME SPECIFICATION	30
C5.6 ANNEXURE F: CIDB B.U.I.L.D STANDARD FOR DEVELOPING SKILLS THROUGH INFRASTRUCTURE CONTRACTS (MARCH 2023).....	31
C5.7 ANNEXURE G: CIDB B.U.I.L.D STANDARD FOR INDIRECT TARGETING FOR ENTERPRISE DEVELOPMENT THROUGH CONSTRUCTION WORKS CONTRACTS PUBLISHED IN GG NO. 54575 OF 24 APRIL 2026	32
C5.8 ANNEXURE H: PLANNING SPECIFICATION FOR CONTRACTORS	33

BOOK 2

PART C3: SCOPE OF WORKS

C3.1 DESCRIPTION OF THE WORKS

The scope of work for the completion contract consists of Phase 2B: Refurbishment of ICU Ward, Phase 2D: CSSD Linking Passage and Receiving Areen and sundry and external works. The detailed scope of works is as below:

(a) Phase 2B: ICU Completion Works, measuring approximately 950m² and consisting of:

- (i) Internal renovations and demolitions
- (ii) Installation of doors, ceilings, sanitary fittings and joinery
- (iii) Flooring upgrades and vinyl finishes
- (iv) Fire protection systems
- (v) Bedhead services and nurse call systems
- (vi) HVAC, electrical and medical gas installations
- (vii) Painting, signage and wall protection.

(b) Phase 2D: CSSD Renovations, measuring approximately 90m² and consisting of:

- (i) Partitioning and refurbishment works
- (ii) Installation of new sanitary fittings
- (iii) Fire safety systems
- (iv) Instrument washer installation
- (v) Waterproofing, roofing and flooring repairs
- (vi) Specialist electrical and HVAC installations.

(c) Sundry & External Works

- (i) HVAC enclosure completion
- (ii) Courtyard paving and ambulance ramp
- (iii) Waterproofing and crack repairs
- (iv) External wall sealing
- (v) Remedial repairs due to water damage and tree root damage
- (vi) Deep cleaning of incomplete work areas.

Further to the above, the non-infrastructure components socio-economic deliverables also form part of the project scope and shall be achieved, namely:

- (a) Experiential learning opportunities for built environment graduates in the form of internships;
- (b) Employment opportunities for the members of the local community; and
- (c) Participation opportunities for local SMME subcontractors in the form of construction work packages

The detailed scope of works per area is as described below:

1) PE PROVINCIAL HOSPITAL – COMPLETION OF WORK TO ICU WARDS AND RELATED AREAS (950m²) (RE-TENDER) ON 2nd FLOOR OF BUILDING

ICU ward area will consist of 10 ICU isolation rooms and 4 ICU beds in ward area

- (a) Cleaning of internal working areas, removal of bird droppings, dead birds, rubble and rubbish and dispose at approved spoil site
- (b) Minor renovations and demolitions work
- (c) New doors and doorframes, including ironmongery and stainless steel door protection
- (d) New uPVC windows
- (e) New suspended ceilings and shadow line cornices
- (f) New bulkheads
- (g) New sanitary fittings and pipework
- (h) Fire hose reel and fire extinguishers and related pipework
- (i) New bedpan washer
- (j) Moisture barrier, new screed, self-levelling screed and vinyl sheeting on floors
- (k) New Vinyl skirting
- (l) New cupboards and joinery fittings and timber shelving
- (m) New soap dispensers, soap trays and toilet roll holders
- (n) Wall and corner protection
- (o) Bed curtain tracks
- (p) Signage
- (q) New mirrors
- (r) New aluminium shopfronts and sliding doors
- (s) Install door and wall signage
- (t) Plaster on walls
- (u) Tiling on walls and in splash backs
- (v) Painting to walls, doors, door frames and skimmed ceilings
- (w) Minor renovations to fire escape staircase and lobby (3 storeys)
- (x) Replace existing fire escape door and ironmongery

2) PE PROVINCIAL HOSPITAL – RENOVATIONS TO CSSD (90m²) (RE-TENDER)

- (a) Minor renovations and demolitions work
- (b) New stairs to CSSD corridor escape door
- (c) Replace existing timber boarded roof with new steel roof sheeting, fascias and flashings
- (d) New doors and doorframes including ironmongery and stainless steel door protection
- (e) New suspended ceilings and shadow line cornices
- (f) New bulkheads
- (g) New partitioning walls
- (h) New sanitary fittings and pipework

- (i) Fire hose reel and fire extinguishers and related pipework
- (j) Moisture barrier, new screed, self-levelling screed and vinyl sheeting on floors
- (k) New Vinyl skirting
- (l) New cupboards and joinery fittings and stainless steel table and shelves
- (m) New soap dispensers, soap trays and toilet roll holders
- (n) Wall and corner protection
- (o) Steel roller shutter door
- (p) Signage
- (q) New mirrors
- (r) New aluminium shopfronts and sliding doors
- (s) New instrument washer
- (t) Plaster on walls
- (u) Install door and wall signage
- (v) Tiling on walls and in splash backs
- (w) Painting to walls, doors, door frames and ceilings

3) REMEDIAL WORK AND SUNDRIES:

- (a) Completion of enclosure for HVAC equipment
- (b) Paving for ambulance drop-off and in-situ concrete ramp
- (c) Crack repairs in basement
- (d) Repair waterproofing and replace floor tiles on walkway (next to external ramp)
- (e) Remedial work to floors and vinyl in passage to CSSD – due to damage from tree roots
- (f) Sealing of external walls (Ground floor, 2nd floor and 3rd floor) - Bidder to allow for access scaffolding to working areas.
- (g) Minor repairs work to damp wall in Cathlab meeting room and sluice room, due to water damage

SPECIALIST INSTALLATIONS (DOMESTIC SUB-CONTRACTS):

4) ELECTRICAL INSTALLATION:

- (a) Replacement of LV mains cables feeding MDB (essential and non-essential)
- (b) New LV mains cables feeding SDBs from MDB
- (c) New Distribution Boards with Essential & Non-Essential supplies –
 - (i) Main DB;
 - (ii) SDB-ISO with isolation transformer and UPS for CICU; and
 - (iii) SDB-HVAC replacing existing SDB in the plantroom first floor
- (d) New LED lighting and power in various rooms
- (e) Medical Equipment
 - (i) Medical Pendants for CICU and Isolation.
 - (ii) New LED lighting and power in various rooms
- (f) Testing of the Electrical installation and issue Certificates of Compliance
- (g) Lightning Protection System (LPS)

- (h) Testing of the LPS installation and issue Certificates of Compliance
- (i) Produce marked up As-Built drawings
- (j) Produce Operation & Maintenance Manuals for the all new installations

5) NURSE CALL, ICT INSTALLATION AND ACCESS CONTROL:

- (a) **Nurse call system**
 - (i) Complete system for all the beds in CICU, High Care and Isolation
 - (ii) The system to have viewing station with monitor at Nursing Station near CICU
 - (iii) The system shall be linked to existing network
- (b) **ICT installation**
 - (i) IT wiring for data and network to various offices including Nursing Station
 - (ii) IT switch with cabinet for IT reticulation of the building
 - (iii) The IT shall be linked onto existing IT network
- (c) **Access Control**
 - (i) Access Control system for main entrance door and exit door at the back of the building
 - (ii) The system shall entail – Controller, Biometric Reader, Touch Free release button and door magnets
 - (iii) The system shall be integrated to Fire Detection
- (d) Produce marked up As-Built drawings
- (e) Produce Operation & Maintenance Manuals for the all new installations

6) HVAC INSTALLATION:

- (a) **Installation of Air Conditioning equipment to CICU:**
 - (i) Existing, uninstalled, TOSHIBA model MMY-MAP1806FT8P-E VRF 44.0 kw outdoor Heat Recovery Condensing Unit, located in plant room, for CICU,
 - (ii) New TOSHIBA model MMY- MAP1206FT8P-E VRF33.4 kw outdoor Heat Recovery Condensing Unit, located in plant room, for CICU,
 - (iii) Special condenser elbow fitting, existing, uninstalled,
 - (iv) Refrigerant reticulation,
 - (v) Selector boxes,
 - (vi) Branch Kits,
 - (vii) Indoor cassette units,
 - (viii) Wired remotes,
 - (ix) Trunking / Wire Basket / Conduit and Condensate
- (b) **Installation of new fresh air ventilation to CICU:**
 - (i) Ducted branch reticulation, main supply ducting already installed in plant room,
 - (ii) New ducting and branch reticulation,
 - (iii) Axial Fans,
 - (iv) Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled, & new equipment,
 - (v) Cleaning & sanitising existing 300 x 300 mm fresh air duct,
 - (vi) Removal of redundant 100 x 100 mm fresh air ducting,

(c) Installation of new extract air ventilation to CICU:

- (i) Ducted reticulation,
- (ii) Axial Fans,
- (iii) Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled, & new equipment,

(d) Installation of Air Conditioning equipment to CSSD:

- (i) Installation of existing ceiling cassettes,
- (ii) Installation of new ceiling cassettes, selector boxes, branch kits,
- (iii) Refrigerant reticulation,
- (iv) Wired remotes,
- (v) Trunking / Wire Basket / Conduit and Condensate

(e) Installation of new fresh air ventilation to CSSD:

- (i) Ducted reticulation,
- (ii) Axial Fan,
- (iii) Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled,

(f) Sundries:

- (i) Completion of enclosure for HVAC equipment
- (ii) Testing and Commissioning, as per SANS regulations,
- (iii) Manuals, Drawings, OEM Literature,

7) FIRE DETECTION INSTALLATION:

- (a) Installation of new early warning fire detection & suppression equipment, as per SANS 10400 Section T and SANS 10139 to the following areas:
- (b) CICU – install new fire panel + loop + new line units,
- (c) CSSD – cut into existing loop and extend to cover CSSD unit + new line units,
- (d) Installation of new fire equipment signage, as per SANS 1186,
- (e) Testing and Commissioning, as per SANS 10400 Section T and SANS 10139,
- (f) Manuals, Drawings, OEM Literature

8) MEDICAL GAS INSTALLATION

- (a) Cut into existing hospital trunk main for supply to CICU,
- (b) Installation of new medical gas:
 - (i) Reticulation,
 - (ii) Area valve service units,
 - (iii) Pressure sensors,
 - Outlets:
 - Oxygen,
 - Vacuum,
 - Medical low-pressure air,
 - (iv) Connection of medical gas piping to pendants (supplied by others)
 - (v) Alarm panel,

- (vi) Testing and Commissioning, as per SANS regulations,
- (vii) Manuals, Drawings, OEM Literature,

9) HEALTH AND SAFETY

- (a) Site camp development and demarcation
- (b) Demarcation and hoarding of construction areas, separation from operational hospital operations
- (c) Installation of required risk based and legislated signage
- (d) Implementing good hygiene to prevent biological agents' exposure
- (e) Control access to construction areas
- (f) Identification of known and unknown services
- (g) Safe demolition
- (h) Safe working from heights, inclusive of ladders, scaffolding and Mobile Elevated Work Platforms
- (i) Reduction of noise, dust and vibration exposures
- (j) Control and regular removal of waste generated from construction works
- (k) Safe handling of chemicals
- (l) Management of fire risks on site
- (m) Safe stacking and storage of articles and equipment
- (n) Creating safe and clear walk and pathways
- (o) Safe handling, use and storage of works equipment
- (p) Safe handling, use and installation of electrical and mechanical works
- (q) Use of lock out and tag of systems
- (r) Issue, handle and correct use of PPE

The existing hospital shall remain functional.

10) SMME SOCIAL DELIVERABLES:

Tenderers to take note that a portion of the building works, excluding specialist work, are to be contracted to SMME's. Provisional Sums are provided for this purpose and bids will be called for after award for these packages on a selected sub-contractor basis.

The Tenderer is to price all associated administrative, supervision, mentoring costs, profit and attendance in the relevant sections of the Preliminaries, as no claims for additional costs will be entertained.

These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders calculated in terms of the prescribed contractual directives.

The SMME Packages involves the following works:

- (a) **Timber doors and timber doorframes** – Installation of new single leaf and double leaf timber doors and timber door frames at High Care/CICU (excluding Fire door installation) (2nd floor)
- (b) **Ceilings** – Suspended ceilings for High Care/CICU (2nd floor)
- (c) **Paintwork** – General internal painting to walls, ceilings, doors, door frames and existing steel windows in High Care/CICU (2nd floor)
- (d) **Paving in courtyard** – Break up and remove existing paving blocks, reducing levels, imported filling,

compaction, soil poisoning and new 80mm interlocking paving blocks (approx. 205m²)

Main Contractor to identify further packages to ensure SMME participation is achieved as committed on "Form K"

11) SEQUENCE OF WORKS:

(a) ICU:

All work to the ICU section can commence immediately.

(b) CSSD:

(i) Remedial work to floor in link passage to CSSD:

Remedial work to CSSD passage for damage cause by tree roots and hoarding around proposed CSSD alterations to be completed, to enable CSSD to be accessed from the renovated passage prior to CSSD alterations proceeding.

The repairs consist of opening up the crack, insert movement joint, re-screed area in patching and repair vinyl in patching. Clean passage and remove existing temporary hoarding. Install fire door including ironmongery and painting of door.

(ii) Renovations to CSSD:

All work to CSSD can commence once repairs to link passage to CSSD is complete. **Bidder to programme accordingly.**

The following work can commence immediately and bidder to programme accordingly:

- (a) Crack repairs in basement
- (b) Sealing of external walls
- (c) Completion of HVAC enclosure
- (d) Paving in courtyard
- (e) Repairs to water damage in Cath Lab area and sluice room
- (f) Repair waterproofing and replace floor tiles on walkway (next to external ramp)

12) RESTRICTIONS AND CONSTRAINTS

- (a) The completion of the project is urgent and work shall be executed during normal working hours i.e. 8h00 till 17h00 weekdays only. Work required to be executed outside of these hours must be arranged with the Facilities Manager and the Chief Executive of the hospital, in advance.
- (b) Noise must be kept to a minimum and within acceptable levels at all times.
- (c) All shut-offs and tie/cut-ins to existing services must be arranged in advance with the Facilities Manager and a methodology with appropriate mitigation of risks must be prepared by the contractor and submitted to the relevant Professional discipline in advance, for approval.
- (d) Dust emanating from the work site must be controlled at all times

13) OPERATIONAL PROTOCOLS

- (a) Security is a priority, and the site shall be kept safe at all times.
- (b) The approved Health and Safety plan shall be adhered to at all times

- (c) All staff members of the contractor shall wear PPE at all times
- (d) All staff members of the contractor shall be specifically identifiable at all times and to this end shall wear a pre-determined coloured overall to be able to enter and work on the site.
- (e) Regular meetings, the frequency of which is to be determined, shall be held with the management of the hospital to always ensure a cohesive spirit of co-operation
- (f) The successful contractor must take into account that other contractors may be busy with construction in close proximity to the works and allowance must be made in the contractor's submission to accommodate these parties.

14) ACCESS AND SITE ESTABLISHMENT

- (a) Prospective bidders are to fully familiarize themselves with the site and access to the site and restricted area for site establishment. Allowance for temporary construction access etc. shall be deemed to be included in contractor's price/bid. Prospective bidders are to familiarize themselves with the site as no additional costs shall be entertained.
- (b) No Contractor's representatives or workers are allowed to sleep at establishment area or within hospital complex.
- (c) The Contractors are required to price for establishment and de-establishment in the Preliminaries section of the Bills of Quantities.

15) ACCEPTANCE OF TENDERS

The Employer is not bound to accept the lowest, or any tender, or any portion of any tender

16) MINIMUM WAGE

The Contractor shall adhere to "The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)", and yearly pronounced increases for duration of contract. The National Minimum Wage rate for the year 2026 is **R 30.23** per hour and is subject to a yearly increase therefore the contractor shall tender accordingly.

17) TEMPORARY WORKS

All temporary works to comply with the Occupational Health and Safety Act and Regulations (OHSA), Act (85 of 1993) read with Construction Regulations 2014.

18) ORDER OF THE WORKS

The Bidder will be expected to make or present a proposed programme for the works and the order of the works will then be finalized in conjunction with the principal agent.

19) BUILDINGS OCCUPIED

Bidders to take cognizance that working areas at PE Provincial Hospital forms part of a fully functional hospital

20) EXISTING PREMISES ON SITE

Existing buildings on site will be in use during the construction of the new work.

21) CONTRACT PERIOD

The contract period shall be **17 (Seventeen) calendar months** from date of handover of site. (Including annual builders' holidays).

Bidders to take cognizance of the following conditions:

- (a) Months 1-2: Conclusion of all Socio Economic & SMME subcontractor appointments, Site Establishment
- (b) Months 3-17: Construction of works

Bidders to price accordingly

22) SOCIO ECONOMIC DELIVERABLES

The Socio-economic objectives of the project are:

- (a) to train occupational qualifications, trade qualifications, work integrated learners - P1 and P2 learners, professional candidates.
 - (b) to develop targeted enterprises who are either JV partners to the successful bidder or sub-contractors.
- Development will be undertaken in identified areas following a Needs Analysis.

C3.2 DRAWINGS AND SPECIFICATIONS

ALL PROJECT DRAWINGS AND DRAWINGS REFERENCED IN BILLS OF QUANTITIES ARE INCLUDED AND PROVIDED WITH THE BID DOCUMENTS

All drawings containing Architectural, Civil/Structural and Electrical Drawings are attached to the tender documents.

LIST OF DRAWINGS FOR WHICH REFERENCES ARE MADE IN THE BILLS OF QUANTITIES :

HIGH CARE/CICU:

FIRE DOORS (TAKE OUT OF STORAGE AND INSTALL)

CR-00-DRS-FD03	FIRE DOOR
CR-00-DRS-FD04	FIRE DOOR
CR-00-DRS-FD01	FIRE DOOR
CR-00-DRS-FD02	FIRE DOOR

JOINERY FITTINGS

CR-000/JDT-201
CR-000/JDT-202a and 202b
CR-000/JDT-203
CR-000/JDT-204
CR-000/JDT-205
CR-000/JDT-206
CR-000/JDT-207a and 207b
CR-000/JDT-208
CR-000/JDT-209
CR-000/JDT-210a and 210b
CR-000/JDT-211a and 211b
CR-000/JDT-212
CR-000/JDT-213a and 213b
CR-000/JDT-214
CR-000/JDT-215
CR-000/JDT-216
CR-000/JDT-217a and 217b
CR-000/JDT-218
CR-000/JDT-219a and 219b
CR-000/JDT-220a and 220b
CR-000/JDT-221
CR-000/JDT-222
CR-000/JDT-223
CR-000/JDT-224a and 224b
CR-000/JDT-225
CR-000/JDT-226a and 226b and 226c

CR-000/JDT-227-232

CR-000/JDT-233 - 240

CR-000/JDT-237a and 237b

CR-000/JDT-238

CR-000/JDT-241 - 242

FIRE ESCAPE DOOR:

305-016 – ARC215

IRONMONGERY SCHEDULE

305-016 - IRONMONGERY SCHEDULE

FIRE SIGNAGE SCHEDULE

305-016-ARC-213 FIRE SIGNAGE SCHEDULE

UPVC WINDOWS

WIN-201	WINDOW 1
WIN-202	WINDOW 2
WIN-203	WINDOW 3
WIN-204	WINDOW 4
WIN-213	WINDOW 13
WIN-215	WINDOW 15
WIN-209	WINDOW 9
WIN-205	WINDOW 5
WIN-206	WINDOW 6
WIN-207	WINDOW 7
WIN-208	WINDOW 8
WIN-214	WINDOW 14
WIN-211	WINDOW 11
WIN-212	WINDOW 12
WIN-210	WINDOW 10

STAINLESS STEEL LOUVRES AND FRAME

305-106-DRS-DTL01 LOUVRED VENT

ALUMINIUM SHOPFRONTS

305-016/SF-201 and AL01	ALUMINIUM SHOPFRONTS
305-016/SF-202	ALUMINIUM SHOPFRONTS
305-016/SF-203 and AL01	ALUMINIUM SHOPFRONTS
305-016/SF-204	ALUMINIUM SHOPFRONTS
305-016/SF-205 and AL02	ALUMINIUM SHOPFRONTS
305-016/SF-206	ALUMINIUM SHOPFRONTS
305-016/SF-207	ALUMINIUM SHOPFRONTS
305-016/SF-208	ALUMINIUM SHOPFRONTS
305-016/SF-209 and AL04	ALUMINIUM SHOPFRONTS
305-016/SF-210	ALUMINIUM SHOPFRONTS

305-016/SF-211	ALUMINIUM SHOPFRONTS
305-016/SF-212 and AL02	ALUMINIUM SHOPFRONTS
305-016/SF-213	ALUMINIUM SHOPFRONTS
305-016/SF-213	ALUMINIUM SHOPFRONTS
305-016/SF-214	ALUMINIUM SHOPFRONTS
305-016/SF-215	ALUMINIUM SHOPFRONTS
305-016/SF-216	ALUMINIUM SHOPFRONTS
305-016/SF-217 and AL02	ALUMINIUM SHOPFRONTS
305-016/SF-218	ALUMINIUM SHOPFRONTS
305-016/SF-219 and AL02	ALUMINIUM SHOPFRONTS
305-016/SF-220	ALUMINIUM SHOPFRONTS
305-016/SF-221	ALUMINIUM SHOPFRONTS
305-016/SF-222	ALUMINIUM SHOPFRONTS
305-016/SF-223 and AL02	ALUMINIUM SHOPFRONTS
305-016/SF-224	ALUMINIUM SHOPFRONTS
305-016/SF-225	ALUMINIUM SHOPFRONTS
305-016/SF-226 and AL05	ALUMINIUM SHOPFRONTS
305-016/SF-227 and AL06	ALUMINIUM SHOPFRONTS

ALUMINIUM SLIDING DOORS

305-016/DRS-S01	ALUMINIUM SLIDING DOORS
-----------------	-------------------------

CSSD:

JOINERY FITTINGS

CR-000/JDT-C01	CUPBOARD
CR-000/JDT-C04	STAINLESS STEEL TABLES AND SHELVES
CR-000/JDT-C02	STAINLESS STEEL TABLES AND SHELVES
CR-000/JDT-C03	STAINLESS STEEL TABLES AND SHELVES

STAINLESS STEEL LOUVRES AND FRAME

314-002-DRS-DTL01	LOUVRED VENT
-------------------	--------------

ROLLER SHUTTER

CR-000/DET-C03	ROLLER SHUTTER
----------------	----------------

EXTERNAL WORKS:

BOX GUTTER, HOPPER AND DOWNPIPE

305-016-DET-007	BOX GUTTER, HOPPER AND DOWNPIPE
-----------------	---------------------------------

LOUVRE DOORS

305-016-DET-007 DETAIL 8 & 9	LOUVRED DOOR, FRAME & PANELS
------------------------------	------------------------------

BALUSTRADE AT STAIRCASE

305-016-DET-C04	BALUSTRADE
-----------------	------------

ELECTRICAL ENGINEERING DRAWINGS:

Electrical installation:

1710-T-E 101 PEPH CATHLAB

1710-T-E 102 PEPH CATHLAB

1710-T-E 300 PEPH CATHLAB

1710-D-E 101 & 102 CSSD

Nurse call, ICT and access control:

1710-T-E 103 PEPH CATHLAB

1710-T-E 104 PEPH CATHLAB

MECHANICAL ENGINEERING DRAWINGS

Fire detection installation:

1710-D-M 101 FD

1710-D-M 102 FD

1710-D-M 103 FD

Medical Gas installation:

1710-D-M 101 MG

HVAC installation:

1710-D-M 101 HVAC

1710-D-M 102 HVAC

1710-D-M 103 HVAC

1710-D-M 104 HVAC

b4 Ref: 305-016

PE Provincial Hospital : Completion of Cath Lab and CSSD

DRAWING NO.	CURRENT REVISION	DRAWING NAME:	SCALE	SIZE	STATUS
Cath Lab Grand Floor Installation					

Schedules (ICU Ward)						
305-016/	-	7	Phase 2b - Sanware Schedule	-	A4	Issued for Tender
305-016/	SAN-201	7	Phase 2b - Sanware Specification	-	A4	Issued for Tender
305-016/	-	5	Phase 2b - Dorma Ironmongery Specification	-	A4	Issued for Tender
305-016/	DRS-201	1	Phase 2b - Door Key Schedule	-	A3	Issued for Tender
305-016/	FIN-W001	4	Phase 2b - Schedule of Finishes	-	A4	Issued for Tender

Construction Drawings (ICU Ward)						
305-016/	ARC-201		Second Floor - Ward - Existing Layout	1:100	A1	Not Issued
305-016/	ARC-202	2	Phase 2b - Ward - Demolition Layout	1:100	A1	Issued for Tender
305-016/	ARC-203	3	Phase 2b - Ward - Dimension Layout	1:100	A1	Issued for Tender
305-016/	ARC-204	3	Phase 2b - Ward - Key Plan	1:100	A1	Issued for Tender
305-016/	ARC-205	2	Phase 2b - Ward - Floor Finishes	1:100	A1	Issued for Tender
305-016/	ARC-206	2	Phase 2b - Ward - Ceiling Type Plan	1:100	A1	Issued for Tender
305-016/	ARC-207	3	Phase 2b - Ward - Ceiling Layout Plan	1:100	A1	Issued for Tender
305-016/	ARC-208	2	Second Floor - Ward - Slab Penetrations	1:100	A1	Not Issued
305-016/	ARC-209	3	Phase 2b - Ward - Wall & Corner Protection	1:100	A1	Issued for Tender
305-016/	ARC-210	2	Phase 2b - Ward - Water Reticulation	1:100	A1	Issued for Tender
305-016/	ARC-211	2	Phase 2b - Ward - Drainage	1:100	A1	Issued for Tender
305-016/	ARC-212	2	Phase 2b - Ward - Bed Curtain Rails	1:100	A1	Issued for Tender
305-016/	ARC-213	2	Phase 2b - Ward - Emergency Signage	1:100	A1	Issued for Tender
305-016/	ARC-214	2	Phase 2b - Ward - Door Signage	1:100	A1	Issued for Tender
305-016/	ARC-215	2	Phase 2b - Ward - Ground Floor Fire Escape Door Replacement	1:100	A3	Issued for Tender

Construction Drawings (Plant Room)						
305-016/	ARC-303	-	Phase 2b - Plant Room Dimension Layout	1:100	A1	Issued for Tender

Details Drawings						
305-016/	DET-010	1	Phase 2b - Door Protection Details - Single Leaf Doors - Sheet 1	As Indicated	A1	Issued for Tender
305-016/	DET-011	1	Phase 2b - Door Protection Details - Single Leaf Doors - Sheet 2	As Indicated	A1	Issued for Tender
305-016/	DET-012	1	Phase 2b - Door Protection Details - Single Leaf Doors - Sheet 3	As Indicated	A1	Issued for Tender
305-016/	DET-013	1	Phase 2b - Door Protection Details - Double Leaf Doors - Sheet 1	As Indicated	A1	Issued for Tender
305-016/	DET-014	1	Phase 2b - Door Protection Details - Double Leaf Doors - Sheet 2	As Indicated	A1	Issued for Tender
305-016/	DET-016	-	Phase 2b - P-Block External Sealing Elevations	As Indicated	A1	Issued for Tender

Joinery Details Drawings (ICU Ward)						
305-016/	JDT-201	1	Visitors Waiting Room - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-202a	1	Staff Break Room - Plan, Elevation & Isometric	1:50	A3	Issued for Tender
305-016/	JDT-202b	1	Staff Break Room - Sections	1:20	A3	Issued for Tender
305-016/	JDT-203	1	Clean Linen Store - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-204	1	Clean Linen Store - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-205	1	Clean Linen Store - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-206	1	ICU Technicians Office - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-207a	1	Technicians Store - Plan & Elevations	1:50	A3	Issued for Tender
305-016/	JDT-207b	1	Technicians Store - Sections & Isometric	1:20	A3	Issued for Tender
305-016/	JDT-208	1	Dirty Utility - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-209	1	Unit Managers Office - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-210a	1	Respiratory Store - Plan & Elevations	1:50	A3	Issued for Tender
305-016/	JDT-210b	1	Respiratory Store - Sections & Isometric	Various	A3	Issued for Tender
305-016/	JDT-211a	1	ICU Equipment Store - Plan & Elevations	1:50	A3	Issued for Tender
305-016/	JDT-211b	1	ICU Equipment Store - Sections & Isometric	Various	A3	Issued for Tender
305-016/	JDT-212	1	Equipment Store - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-213a	1	Equipment Store - Plan & Elevations	1:50	A3	Issued for Tender
305-016/	JDT-213b	1	Equipment Store - Sections, Detail & Isometric	Various	A3	Issued for Tender
305-016/	JDT-214	1	Staff Lockers / Ablutions - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-215	1	Ward Kitchen - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-216	1	Doctor On Call Room - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-217a	1	General Ward Store - Plan & Elevations	1:50	A3	Issued for Tender
305-016/	JDT-217b	1	General Ward Store - Sections & Isometric	1:20	A3	Issued for Tender
305-016/	JDT-218	1	Doctors Office (s) - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-219a	1	Doctors Office (s) - Plan, Elevation & Isometric	1:50	A3	Issued for Tender
305-016/	JDT-219b	1	Doctors Office (s) - Sections	1:20	A3	Issued for Tender
305-016/	JDT-220a	1	Doctors Office (s) - Plan, Elevation & Isometric	1:50	A3	Issued for Tender
305-016/	JDT-220b	1	Doctors Office (s) - Sections	1:20	A3	Issued for Tender
305-016/	JDT-221	1	Dirty Utility / Cleaners Room - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-222	1	Consultation Room - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-223	1	Ward Reception / Administration - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-224a	1	Ward Reception / Administration - Plan, Elevation & Isometric	1:50	A3	Issued for Tender
305-016/	JDT-224b	1	Ward Reception / Administration - Sections	1:20	A3	Issued for Tender
305-016/	JDT-225	1	Store - Plan, Elevation, Section & Isometric	Various	A3	Issued for Tender
305-016/	JDT-226a	1	8 Bed ICU - Isometrics	Various	A3	Issued for Tender
305-016/	JDT-226b	1	8 Bed ICU - Plan, Sections	Various	A3	Issued for Tender
305-016/	JDT-226c	1	8 Bed ICU - Elevations	1:50	A3	Issued for Tender
305-016/	JDT-227-232	1	8 Bed ICU, Plan, Section, Elevation, Isometric	Various	A3	Issued for Tender
305-016/	JDT-233-240	1	8 Bed ICU, Plan, Section, Elevation, Isometric	Various	A3	Issued for Tender
305-016/	JDT-237a	1	6 Bed ICU - Plan, Isometric	1:25	A3	Issued for Tender
305-016/	JDT-237b	1	6 Bed ICU - Elevations, Sections	1:25	A3	Issued for Tender
305-016/	JDT-238	1	6 Bed ICU - Plan, Section, Elevation, Isometric	Various	A3	Issued for Tender
305-016/	JDT-241-242	1	8 Bed ICU, Plan, Section, Elevation, Isometric	Various	A3	Issued for Tender

Shopfront Details Drawings (ICU Ward)						
305-016/	SF201	2	Phase 2b - Shopfront SF201 & Door AL01	1:25	A3	Issued for Tender
305-016/	SF202	2	Phase 2b - Shopfront SF202	1:25	A3	Issued for Tender
305-016/	SF203	2	Phase 2b - Shopfront SF203 & Door AL04	1:25	A3	Issued for Tender
305-016/	SF204	2	Phase 2b - Shopfront SF204	1:25	A3	Issued for Tender
305-016/	SF205	2	Phase 2b - Shopfront SF205 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF206	2	Phase 2b - Shopfront SF206	1:25	A3	Issued for Tender
305-016/	SF207	2	Phase 2b - Shopfront SF207 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF208	2	Phase 2b - Shopfront SF208 & Door AL01	1:25	A3	Issued for Tender
305-016/	SF209	2	Phase 2b - Shopfront SF209 & Door AL04	1:25	A3	Issued for Tender
305-016/	SF210	2	Phase 2b - Shopfront SF210	1:25	A3	Issued for Tender
305-016/	SF211	2	Phase 2b - Shopfront SF211	1:25	A3	Issued for Tender
305-016/	SF212	2	Phase 2b - Shopfront SF212 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF213	2	Phase 2b - Shopfront SF213	1:25	A3	Issued for Tender
305-016/	SF214	2	Phase 2b - Shopfront SF214	1:25	A3	Issued for Tender
305-016/	SF215	2	Phase 2b - Shopfront SF215	1:25	A3	Issued for Tender
305-016/	SF216	2	Phase 2b - Shopfront SF216	1:25	A3	Issued for Tender
305-016/	SF217	2	Phase 2b - Shopfront SF217 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF218	2	Phase 2b - Shopfront SF218	1:25	A3	Issued for Tender
305-016/	SF219	2	Phase 2b - Shopfront SF219 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF220	2	Phase 2b - Shopfront SF220	1:25	A3	Issued for Tender
305-016/	SF221	2	Phase 2b - Shopfront SF221	1:25	A3	Issued for Tender
305-016/	SF222	2	Phase 2b - Shopfront SF222 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF223	2	Phase 2b - Shopfront SF223 & Door AL02	1:25	A3	Issued for Tender
305-016/	SF224	2	Phase 2b - Shopfront SF224	1:25	A3	Issued for Tender
305-016/	SF225	2	Phase 2b - Shopfront SF225	1:25	A3	Issued for Tender
305-016/	SF226	2	Phase 2b - Shopfront SF226 & Door AL05	1:25	A3	Issued for Tender
305-016/	SF227	2	Phase 2b - Shopfront SF227 & Door AL06	1:25	A3	Issued for Tender

Window Schedule Drawings						
305-016/	WIN-201	-	Phase 2b - Window Schedules	As Indicated	A3	Issued for Tender

Door Schedule Drawings						
305-016/	DRS-A01	-	Phase 2b - A-Type Door Series	As Indicated	A3	Issued for Tender
305-016/	DRS-B01	-	Phase 2b - B-Type Door Series - Sheet 1	As Indicated	A3	Issued for Tender
305-016/	DRS-B02	-	Phase 2b - B-Type Door Series - Sheet 2	As Indicated	A3	Issued for Tender
305-016/	DRS-D01	-	Phase 2b - D-Type Door Series	As Indicated	A3	Issued for Tender
305-016/	DRS-DTL01	-	Phase 2b - 300x300mm Louvre Details	As Indicated	A3	Issued for Tender
305-016/	DRS-FD01	-	Phase 2b - Fire Door Door Series - Sheet 1	As Indicated	A3	Issued for Tender
305-016/	DRS-FD02	-	Phase 2b - Fire Door Door Series - Sheet 2	As Indicated	A3	Issued for Tender
305-016/	DRS-N01	-	Phase 2b - N-Type Door Series	As Indicated	A3	Issued for Tender
305-016/	DRS-R01	-	Phase 2b - R-Type Door Series	As Indicated	A3	Issued for Tender
305-016/	DRS-S01	-	Phase 2b - S-Type Door Series - Sheet 1	As Indicated	A3	Issued for Tender

Room Data Sheets (ICU Ward)						
305-016/	RDS-201a	1	Phase 2b - Visitors Waiting Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-201b	1	Phase 2b - Visitors Waiting Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-201c	1	Phase 2b - Visitors Waiting Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-202a	1	Phase 2b - Staff Break Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-202b	1	Phase 2b - Staff Break Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-202c	1	Phase 2b - Staff Break Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-203a	1	Phase 2b - Clean Linen Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-203b	1	Phase 2b - Clean Linen Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-204a	1	Phase 2b - 6 Bed ICU - Room Data Sheet	As Indicated	A3	
305-016/	RDS-204b	1	Phase 2b - 6 Bed ICU - Room Data Sheet	As Indicated	A3	
305-016/	RDS-204c	1	Phase 2b - Existing NHLS - Room Data Sheet	As Indicated	A3	
305-016/	RDS-205a	1	Phase 2b - Future High Care - Room Data Sheet	As Indicated	A3	
305-016/	RDS-205b	1	Phase 2b - Future High Care - Room Data Sheet	As Indicated	A3	
305-016/	RDS-205c	1	Phase 2b - Future High Care - Room Data Sheet	As Indicated	A3	
305-016/	RDS-206a	1	Phase 2b - Technicians Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-206b	1	Phase 2b - Technicians Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-206c	1	Phase 2b - Technicians Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-207a	1	Phase 2b - ICU Technicians Office - Room Data Sheet	As Indicated	A3	
305-016/	RDS-207b	1	Phase 2b - ICU Technicians Office - Room Data Sheet	As Indicated	A3	
305-016/	RDS-208a	1	Phase 2b - CICU Room Data Sheet	As Indicated	A1	
305-016/	RDS-208b	1	Phase 2b - CICU Room Data Sheet	As Indicated	A1	
305-016/	RDS-212a	1	Phase 2b - Assisted Bathroom - Room Data Sheet	As Indicated	A3	
305-016/	RDS-212b	1	Phase 2b - Assisted Bathroom - Room Data Sheet	As Indicated	A3	
305-016/	RDS-213a	1	Phase 2b - Staff Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-213b	1	Phase 2b - Staff Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-214a	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-214b	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-216a	1	Phase 2b - Single Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-216b	1	Phase 2b - Single Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-217a	1	Phase 2b - Single Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-216b	1	Phase 2b - Single Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-219a	1	Phase 2b - Isolation Sluice - Room Data Sheet	As Indicated	A3	
305-016/	RDS-219b	1	Phase 2b - Isolation Sluice - Room Data Sheet	As Indicated	A3	
305-016/	RDS-220a	1	Phase 2b - Dirty Utility - Room Data Sheet	As Indicated	A3	
305-016/	RDS-220b	1	Phase 2b - Dirty Utility - Room Data Sheet	As Indicated	A3	
305-016/	RDS-222a	1	Phase 2b - Unit managers Office - Room Data Sheet	As Indicated	A3	
305-016/	RDS-222b	1	Phase 2b - Unit managers Office - Room Data Sheet	As Indicated	A3	
305-016/	RDS-223a	1	Phase 2b - Respiratory Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-223b	1	Phase 2b - Respiratory Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-224a	1	Phase 2b - ICU Equipment Store (Lazy Boys) - Room Data Sheet	As Indicated	A3	
305-016/	RDS-224b	1	Phase 2b - ICU Equipment Store (Lazy Boys) - Room Data Sheet	As Indicated	A3	
305-016/	RDS-226a	1	Phase 2b - Equipment Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-226b	1	Phase 2b - Equipment Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-228a	1	Phase 2b - Staff Lockers / Ablutions - Room Data Sheet	As Indicated	A1	
305-016/	RDS-228b	1	Phase 2b - Staff Lockers / Ablutions - Room Data Sheet	As Indicated	A1	
305-016/	RDS-230a	1	Phase 2b - Ward Kitchen - Room Data Sheet	As Indicated	A3	
305-016/	RDS-230b	1	Phase 2b - Ward Kitchen - Room Data Sheet	As Indicated	A3	
305-016/	RDS-231	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A1	
305-016/	RDS-232	1	Phase 2b - Doctor On Call Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-234a	1	Phase 2b - On Call Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-234b	1	Phase 2b - On Call Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-235a	1	Phase 2b - General Ward Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-235b	1	Phase 2b - General Ward Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-235c	1	Phase 2b - General Ward Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-236a	1	Phase 2b - Doctors Office (s) - Room Data Sheet	As Indicated	A3	
305-016/	RDS-236b	1	Phase 2b - Doctors Office (s) - Room Data Sheet	As Indicated	A3	
305-016/	RDS-238a	1	Phase 2b - Ward Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-238b	1	Phase 2b - Ward Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-239a	1	Phase 2b - Service Lift Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-239b	1	Phase 2b - Service Lift Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-240a	1	Phase 2b - Dirty Utility / Cleaners Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-240b	1	Phase 2b - Dirty Utility / Cleaners Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-242a	1	Phase 2b - Disabled WC - Room Data Sheet	As Indicated	A3	

**COMPLETION OF CATH LAB AND CSSD AT
LIVINGSTONE PE PROVINCIAL HOSPITAL COMPLEX**

305-016/	RDS-242b	1	Phase 2b - Disabled WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-244a	1	Phase 2b - Public Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-244b	1	Phase 2b - Public Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-245a	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-245b	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-247a	1	Phase 2b - Consultation Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-247b	1	Phase 2b - Consultation Room - Room Data Sheet	As Indicated	A3	
305-016/	RDS-248a	1	Phase 2b - Ward Reception / Administration - Room Data Sheet	As Indicated	A3	
305-016/	RDS-248b	1	Phase 2b - Ward Reception / Administration - Room Data Sheet	As Indicated	A3	
305-016/	RDS-248c	1	Phase 2b - Ward Reception / Administration - Room Data Sheet	As Indicated	A3	
305-016/	RDS-250a	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-250b	1	Phase 2b - WC - Room Data Sheet	As Indicated	A3	
305-016/	RDS-251	1	Phase 2b - Store - Room Data Sheet	As Indicated	A3	
305-016/	RDS-252a	1	Phase 2b - Visitors Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-252b	1	Phase 2b - Visitors Ablutions - Room Data Sheet	As Indicated	A3	
305-016/	RDS-253a	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A1	
305-016/	RDS-253b	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A3	
305-016/	RDS-253c	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A3	
305-016/	RDS-256a	1	Phase 2b - Lift Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-256b	1	Phase 2b - Lift Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-256c	1	Phase 2b - Lift Lobby - Room Data Sheet	As Indicated	A3	
305-016/	RDS-257a	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A1	
305-016/	RDS-257b	1	Phase 2b - Passage - Room Data Sheet	As Indicated	A3	
305-016/	RDS-258	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-259	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-260	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-261	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-262	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-263	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-264	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	
305-016/	RDS-265	1	Phase 2b - Isolation - Room Data Sheet	As Indicated	A3	

DRAWING REGISTER

PE Provincial Hospital: CSSD Modifications P-Block RETENDER 2026 (Ground Floor)

DRAWING NO.	CURRENT REVISION	DRAWING NAME:	SCALE	SIZE
CSSD Modification				
Schedules				
305-016/	SAN-C001	Phase 2b - CSSD - Sanitaryware Specification		- A4
305-016/	SAN-000	Phase 2b - CSSD - Sanitaryware Key Schedule		- A4
305-016/	FIN-C001	Phase 2b - CSSD - Finishes Schedule		- A4
305-016/	DRS-C001	Phase 2b - CSSD - Door Key Schedule		- A4
305-016/	IRN-C01	Dorma Ironmongery Specification - CSSD		- A4
305-016/	IRN-C02	Dorma Ironmongery Specification - Escape Door and Side Door		- A4
Construction Drawings (CSSD)				
305-016/	ARC-C002	Phase 2b - CSSD - Demolition Layout	1:100	A3
305-016/	ARC-C003	Phase 2b - CSSD - Dimension Layout	1:100	A3
305-016/	ARC-C004	Phase 2b - CSSD - Key Plan	1:100	A3
305-016/	ARC-C005	Phase 2b - CSSD - Ceiling Type Plan	1:100	A3
305-016/	ARC-C006	Phase 2b - CSSD - Ceiling Layout Plan	1:100	A3
305-016/	ARC-C007	Phase 2b - CSSD - Floor Finishes	1:100	A3
305-016/	ARC-C008	Phase 2b - CSSD - Wall & Corner Protection	1:100	A3
305-016/	ARC-C009	Phase 2b - CSSD - Drainage	1:100	A3
305-016/	ARC-C010	Phase 2b - CSSD - Water Reticulation	1:100	A3
305-016/	ARC-C011	Phase 2b - CSSD - Emergency Signage	1:100	A3
305-016/	ARC-C013	Phase 2b - CSSD - Slab Penetrations	1:100	A3

Details Drawings

305-016	DET-C01	Phase 2b - CSSD - Door Protection Details - Single Leaf Doors	As Indicated	A3
305-016	DET-C02	Trolley Wash Bay	As Indicated	A3
305-016	DET-C03	Receiving Hatch Opening	1:25	A3
305-016	DET-C04	CSSD Passage - External Stair Detail	As Indicated	A3
305-016	DET-C05	Flashing Detail above CSSD Corridor	As Indicated	A3

Joinery Details Drawings

305-016/	JDT-C01	Decontamination Area - Plan, Elevation, Section & Isometric	As Indicated	A3
305-016/	JDT-C02	Decontamination Area - Plan, Elevation, Section & Isometric	As Indicated	A3
305-016/	JDT-C03	Decontamination Area - Plan, Elevation, Section & Isometric	As Indicated	A3
305-016/	JDT-C04	Trolley Wash Bay - Plan, Elevation, Section & Isometric	As Indicated	A4

Room Data Sheets

305-016/	RDS-C001a	Phase 2b - CSSD - CSSD Passage - Room Data Sheet	1:25	A3
305-016/	RDS-C001b	Phase 2b - CSSD - CSSD Passage - Room Data Sheet	1:25	A3
305-016/	RDS-C001c	Phase 2b - CSSD - CSSD Passage - Room Data Sheet	1:25	A3
305-016/	RDS-C002a	Phase 2b - CSSD - Trolley Wash Bay - Room Data Sheet	1:25	A3
305-016/	RDS-C002b	Phase 2b - CSSD - Trolley Wash Bay - Room Data Sheet	1:25	A3
305-016/	RDS-C003	Phase 2b - CSSD - Receiving Area - Room Data Sheet	1:25	A3
305-016/	RDS-C003b	Phase 2b - CSSD - Receiving Area - Room Data Sheet	1:25	A3
305-016/	RDS-C003c	Phase 2b - CSSD - Receiving Area - Room Data Sheet	1:25	A3

305-016/	RDS-C005a	Phase 2b - CSSD - Decontamination Area - Room Data Sheet	1:25	A3
305-016/	RDS-C005b	Phase 2b - CSSD - Decontamination Area - Room Data Sheet	1:25	A3
305-016/	RDS-C005c	Phase 2b - CSSD - Decontamination Area - Room Data Sheet	1:25	A3
305-016/	RDS-C005d	Phase 2b - CSSD - Decontamination Area - Room Data Sheet	1:25	A3
305-016/	RDS-C005e	Phase 2b - CSSD - Decontamination Area - Room Data Sheet	1:25	A3
305-016/	RDS-C006a	Phase 2b - CSSD - Staff WC - Room Data Sheet	1:25	A3
305-016/	RDS-C009	Phase 2b - CSSD - Existing CSSD Packing Area - Room Data Sheet	1:25	A3

**Ground Floor works still to be completed
Details & Site Drawings**

305-016	ARC-D004	Phase 2D - CSSD Passage - Dimension Plan	1:100	A3
305-016	DET-007	HVAC Plant fence	As Indicated	A1
305-016	SIT-002	External Ramp Details	As Indicated	A1
305-016	SIT-003	External Paving	1:100	A3

STRUCTURAL AND CIVIL ENGINEERING DRAWINGS:

J117-PEPH-S04	Repairs to Basement cracks layout
J117-PEPH-S07	Concrete paving blocks and details
J117-PEPH-S08	Closure of existing duct detail 1
J117-PEPH-S09	Closure of existing duct detail 2
J117-PEPH-S22	External staircase (CSSD passage)
J117-PEPH-SR09	Rebar layout and bending schedule

ELECTRICAL ENGINEERING DRAWINGS:

Electrical installation:

1710-T-E 101 PEPH CATHLAB
1710-T-E 102 PEPH CATHLAB
1710-T-E 300 PEPH CATHLAB
1710-D-E 101 & 102 CSSD

Nurse call, ICT and access control:

1710-T-E 103 PEPH CATHLAB
1710-T-E 104 PEPH CATHLAB

MECHANICAL ENGINEERING DRAWINGS

Fire detection installation:

1710-D-M 101 FD
1710-D-M 102 FD
1710-D-M 103 FD

Medical Gas installation:

1710-D-M 101 MG

HVAC installation:

1710-D-M 101 HVAC
1710-D-M 102 HVAC
1710-D-M 103 HVAC
1710-D-M 104 HVAC

PART C4: SITE INFORMATION

C4.1 SITE LOCATION

Completion of the Cath lab and CSSD at Livingstone PEPH Hospital Complex

Prospective bidders to familiarize themselves with the locality, access, any other "restrictions"

(Refer to Scope of Works C3)

The PE Provincial Hospital is located at 6 Buckingham Road, Gqeberha and falls under the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape, South Africa

Hospital coordinates (**33°57'30"S, 25°35'57"E**).

Geotechnical Report

N/A

EXISTING PREMISES ON SITE

Prospective Bidders are to take cognisance of the fact that **Completion of the Cath lab and CSSD at Livingstone PEPH Hospital Complex, Eastern Cape will take place on the** existing Hospital properties, **all areas will remain fully operational for the full duration of the Building Contract.**

Bidders' attention is drawn to the following specific requirements:

- (a) Dust Control
- (b) Noise Control - works executed after 5pm to 8am weekdays, works over weekends and public holidays shall be agreed with the Principal Agent prior commencement.

Adverse weather conditions

The contract duration includes a monthly allowance of 3 working days for adverse weather conditions [23.1.1] during which rainfall exceeds 10mm per day or excessive wind. These days shall be reflected on the critical path of the construction programme. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the date for practical completion will not be adjusted. Where the actual delays incurred for adverse weather conditions exceed the programmed delays and such delays have impacted on the critical path of the construction programme, the date for practical completion will be adjusted should the requirements of Clause 23.0 be satisfied

PART C5: ANNEXURES

C5.1 ANNEXURE A: PROJECT OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS



SPECIFICATION:
**OCCUPATIONAL HEALTH AND SAFETY
SPECIFICATION FOR THE COMPLETION
OF THE CATHLAB AND CSSD AT THE
LIVINGSTONE PEPH HOSPITAL COMPLEX
CDC/73/26**

Specification N^o
CDC-SBU-SPC-211-26

Classification: Public

11 August 2026



DOCUMENT INFORMATION SHEET

Title of Document : *Occupational Health and Safety Specification*

Type of Document : *Occupational Health and Safety Specification for the Completion of the CATHLAB and CSSD at the Livingstone PEPH Hospital Complex*

Document Number : *CDC-SBU-SPC-211-26*

Prepared by : *Xavier Redcliffe*

Typed by : *Xavier Redcliffe*

Business Unit : *Sustainability Business Unit – DoH Programme*

Prepared for : *Bidders*

Date of Issue : *11 August 2026*

Copyright

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

DOCUMENT CONTROL SHEET

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

PROJECT NAME : *Completion of the CATHLAB and CSSD at the Livingstone PEPH Hospital Complex*
DOCUMENT TITLE : *Occupational Health and Safety Specification*
DOCUMENT No. : *CDC-SBU-SPC-211-26*

SIGNING OF THE ORIGINAL DOCUMENT

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

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 11 August 2026	Name: X. Redcliffe	Name: S. Gwavu	Name: X. Redcliffe
	Signature: 	Signature: 	Signature: 

Distribution:	CDC
----------------------	------------



REVISION CHART

REVISION	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:
Document Title	<i>Project Health and Safety Specification</i>		
Document Control Number	Revision		Issue Date

<i>Revision Number</i>	<i>Alteration</i>	<i>Date</i>
1		
2		

TABLE OF CONTENT

1. Stakeholder Contact Details
2. Definitions
3. Introduction to this Construction Health and Safety Specification
4. Limitation of liability
5. Purpose of the Construction Health and Safety Specification
6. Implementation of the Construction Health and Safety Specification
7. Scope
8. Compensation for Occupational Injuries and Diseases Act 130 of 1993
9. Construction Work Permit
10. Construction Manager & Supervisor
11. Construction Safety Officer
12. First Aid Management
13. H&S Representatives
14. Project General Risks Management
15. Principal Contractor's Health & Safety Plan
16. Hazard Identification and Risk Assessment
17. H&S file
18. H&S Committee
19. Consolidated H&S file
20. Induction and H&S awareness
21. Health and Safety Training
22. Inspection, Monitoring and Reporting
23. Incidents, Accidents and Emergencies
24. Audits and inspections
25. Hot Work, Fire Risks, Fire Extinguishers and Fire Fighting Equipment
26. Live Energy Work and electrical reticulations
27. Personal Protective Equipment (PPE) and Clothing
28. Occupational H&S Signage
29. Contractor and Sub-contractors Management
30. Fall Protection and Fall Risk Work
31. Ladders
32. Demolition Work
33. Temporary Work
34. Excavation
35. Scaffolding
36. Public Health
37. Night and Weekend Works

- 38. Facilities for Employees
- 39. Cranes and lifting operations
- 40. Material Hoist
- 41. Storage and use of flammable liquids
- 42. Hazardous Chemical Substances
- 43. Explosive actuated fastening devices
- 44. Housekeeping, Stacking, Storage and Drop Zones
- 45. Waste Management
- 46. Occupational Health
- 47. Access, traffic management and camp site
- 48. Biological Risk Management

Annexure A - Contents & Numbering System for The Health and Safety Plan

Annexure B - Contents & Numbering System for The Health and Safety File

Annexure C – Person Job Specification

Annexure D - Acknowledgement of H&S specification

1. Project Team

Representative Name	Organization	Discipline
Johann Cronje	Eastern Cape Department of Health	Client
Visa Barnes	Coega Development Corporation	Implementing Agent
Siseko Gwavu	Coega Development Corporation	Implementing Agent
Andre Viljoen Elize Newman	Sakhiwo FM Consortium (Pty) Ltd represented by SVP Quantity Surveyors & Project Managers (Pty) Ltd	Principal Agent & Quantity Surveyors
Bryan Brinkman	B4 Architects CC	Architect
Eric Ceba	RNA Consulting Engineers (Pty) Ltd	Electrical Engineer
Edith Savan	Keon Consulting Engineers	Civil & Structural Engineers
Xavier Redcliffe	Xaks Consulting (Pty) Ltd	Pr. Construction H&S Agent
Lukhanyiso Mzamo	Xaks Consulting (Pty) Ltd	Pr. Construction H&S Agent

2. Definitions

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

1. **“Agent”** refers to Xaks Consulting (Pty) Ltd professional registered Pr. Construction H&S Agent.
2. **“Client”** refers to Eastern Cape Department of Health (ECDOH).
3. **“Implementing Agent”** refers to Coega Development Corporation who act on behalf of the Client and is contractual appointed on the project.
4. **“CHSS”** refers to this document, the Construction Health & Safety Specification
5. **“COIDA”** means Compensation for Occupational Injuries and Diseases Act 130 of 1993.
6. **“Construction site”** means the premises and grounds where construction work is being performed.
7. **“CDC”** Coega Development Corporation
8. **Principal Contractor** means an employer appointed by the client to perform construction works.
9. **“CR”** refers to the Construction Regulations, 2014
10. **“Designers”** refers to the professional service providers in the engineering and architectural disciplines that provide the project designs.
11. **“DSTI”** refers to a documented daily safe task instruction compiled and issued by a contractor and trained to all relevant employees
12. **“H&S”** refers to Health and Safety
13. **“Hot Work”** means any work where there is a fire or explosion risk, including but not limited to all welding, plasma cutting, grinding, work with flammable or explosive substances and work with chemicals.
14. **Hazardous Weather** means wind speeds greater than 40km/h, or electric storms, or rainfall in excess of 40mm/h.
15. **“Medical certificate of fitness”** means a valid medical certificate of fitness issued by an occupational medicine practitioner; such medical testing shall be relevant to the risks of the construction work on the construction site. and shall conform to the Occupational Health and Safety Act and Regulations and to the requirements in this H&S specification.
16. **“Method statement”** refers to a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in the risk assessment.
17. **“OHSA”** refers to the Occupational Health & Safety Act of 1993
18. **“Regulations”** refers to the Regulations issued under the Occupational Health & Safety Act.

19. **“S”** refers to a Section in the Occupational Health & Safety Act of 1993.
20. **“SACPCMP”** means the South African Council for the Project and Construction Management Professions.
21. **“Hoarding”** a temporary wooden, metal sheets or wire mesh to be used to separate the construction work from the operational hospital activities and the public.

3. Introduction to this Construction H&S Specification

1. This Construction Health & Safety Specification is published in terms of the Occupational Health & Safety Act of 1993 (OHS Act), Construction Regulations 2014, Regulation 5(1)(b).
2. The CHSS does not replace the Construction Regulations, 2014, but is a supplementary specification as required in terms of the Regulations. The Principal Contractor is, at all times required to and will remain responsible to fully address all requirements and standards of the Occupational Health and Safety Act, Regulations and the Construction Regulations. Inclusive of the Health and Safety Plan and the implementation thereof.
3. ECDOH is the Client implementing the construction project.
4. CDC is the implementing agent acting on behalf of the Client.
ECDOH requires all stakeholders to share its commitment in ensuring that the highest standards of health and safety prevail.
The Agent shall submit the project OHS monitoring reports to the Principal Agent on a monthly basis.
5. The client has appointed an Agent who will (inter alia) be responsible for the approval of all Principal Contractors' H&S Plans, for the auditing and monitoring of the Principal Contractors' implementation thereof, and for maintaining the document control associated with the CHSS.

4. Limitation of liability

1. The client or its Agent shall not be responsible for any acts or omissions of any Contractor which may directly or indirectly result from the application of the CHSS.
2. All contractors must ensure that articles, work, equipment, machinery, plant and work practices are, always, compliant to the legal requirements as these apply.
3. The client or its Agent shall limit its responsibility to the application of the Construction Regulations' Client Requirements only.
4. The client cannot be held responsible for any acts or omission of any contractor and no advice, approval of any document required by the CHSS or the Agent, such as hazard identification and risk assessment action plan or any other form of communication from the client or the Agent shall be construed as an acceptance by the client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Further, there is no acceptance of liability by the client or the Agent which may result from the Principal Contractor failing to comply with the CHSS.

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

5. Purpose of the Construction H&S Specification

1. The purpose of the CHSS is for the specification to be used as the standard on which Principal Contractors' H&S Planning and safe work execution must be based.
2. This CHSS will be applicable to all construction work and shall be implemented for the complete project until project close out. **The specification is applicable for the sites location as follows:**
 - The **PE Provincial Hospital** is located at 6 Buckingham Road, Gqeberha and falls under the Nelson Mandela Bay Municipality, in the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape, South Africa.
3. All employers working on the construction sites shall conform to the standard in the CHSS. All the duties of a Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors.

6. Implementation of the Construction H&S Specification

1. This CHSS forms an integral part of the Contract, and Principal Contractors are required to make it an integral part of their contracts with subcontractors and suppliers.
2. The Principal Contractor shall ensure that the H&S plan contains sufficient evidence of:
 - a. Adequate provision for the cost of health and safety measures.
 - b. The principal contractor's access to and intention to appoint persons with the necessary competencies to carry out the construction work safely.
 - c. The principal contractor's access to the necessary resources to carry out the construction work safely and without risk to the health of the workers.
3. The Principal Contractors shall allow in their cost provision for complying with the requirements of this CHSS, this provision shall be per work packages.
4. Normal working hours on site shall be from 07h00 till 17h00, work request outside of the normal working hours should require permission and must be arranged with the Facilities Manager and the Chief Executive of the hospitals.

7. Scope

1. The scope of works for the Completion of Cath Lab and CSSD at Livingstone PEPH Hospital Complex project entails the following:

PART C3: SCOPE OF WORK

DESCRIPTION OF THE WORKS:

PE PROVINCIAL HOSPITAL – COMPLETION OF WORK TO ICU WARDS AND RELATED AREAS (950m2) (RE-TENDER) ON 2nd FLOOR OF BUILDING

ICU ward area will consist of 10 ICU isolation rooms and 4 ICU beds in ward area

- Cleaning of internal working areas, removal of bird droppings, dead birds, rubble and rubbish and dispose at approved spoil site
- Minor renovations and demolitions work
- New doors and doorframes, including ironmongery and stainless-steel door protection
- New uPVC windows
- New suspended ceilings and shadow line cornices
- New bulkheads
- New sanitary fittings and pipework
- Fire hose reel and fire extinguishers and related pipework
- New bedpan washer
- Moisture barrier, new screed, self-levelling screed and vinyl sheeting on floors
- New Vinyl skirting
- New cupboards and joinery fittings and timber shelving
- New soap dispensers, soap trays and toilet roll holders
- Wall and corner protection
- Bed curtain tracks
- Signage
- New mirrors
- New aluminium shopfronts and sliding doors
- Install door and wall signage
- Plaster on walls
- Tiling on walls and in splash backs
- Painting to walls, doors, door frames and skimmed ceilings
- Minor renovations to fire escape staircase and lobby (3 storeys)
- Replace existing fire escape door and ironmongery

PE PROVINCIAL HOSPITAL – RENOVATIONS TO CSSD (90m2) (RE-TENDER)

- Minor renovations and demolitions work
- New stairs to CSSD corridor escape door
- Replace existing timber boarded roof with new steel roof sheeting, fascias and flashings
- New doors and doorframes including ironmongery and stainless-steel door protection
- New suspended ceilings and shadow line cornices
- New bulkheads
- New partitioning walls

- New sanitary fittings and pipework
- Fire hose reel and fire extinguishers and related pipework
- Moisture barrier, new screed, self-levelling screed and vinyl sheeting on floors
- New Vinyl skirting
- New cupboards and joinery fittings and stainless-steel table and shelves
- New soap dispensers, soap trays and toilet roll holders
- Wall and corner protection
- Steel roller shutter door
- Signage
- New mirrors
- New aluminium shopfronts and sliding doors
- New instrument washer
- Plaster on walls
- Install door and wall signage
- Tiling on walls and in splash backs
- Painting to walls, doors, door frames and ceilings

REMEDIAL WORK AND SUNDRIES:

- Completion of enclosure for HVAC equipment
- Paving for ambulance drop-off and in-situ concrete ramp
- Crack repairs in basement
- Repair waterproofing and replace floor tiles on walkway (next to external ramp)
- Remedial work to floors and vinyl in passage to CSSD – due to damage from tree roots
- Sealing of external walls (Ground floor, 2nd floor and 3rd floor) - Bidder to allow for access scaffolding to working areas.
- Minor repairs work to damp wall in Cathlab meeting room and sluice room, due to water damage

SPECIALIST INSTALLATIONS (Domestic sub-contracts):

ELECTRICAL INSTALLATION:

- Replacement of LV mains cables feeding MDB (essential and non-essential)
- New LV mains cables feeding SDBs from MDB
- New Distribution Boards with Essential & Non-Essential supplies –
 - Main DB;
 - SDB-ISO with isolation transformer and UPS for CICU; and
 - SDB-HVAC replacing existing SDB in the plantroom first floor
- New LED lighting and power in various rooms

- Medical Equipment
 - Medical Pendants for CICU and Isolation.
 - New LED lighting and power in various rooms
- Testing of the Electrical installation and issue Certificates of Compliance
- Lightning Protection System (LPS)
- Testing of the LPS installation and issue Certificates of Compliance
- Produce marked up As-Built drawings
- Produce Operation & Maintenance Manuals for the all new installations

NURSE CALL, ICT INSTALLATION AND ACCESS CONTROL:

- Nurse call system
 - Complete system for all the beds in CICU, High Care and Isolation
 - The system to have viewing station with monitor at Nursing Station near CICU
 - The system shall be linked to existing network
- ICT installation
 - IT wiring for data and network to various offices including Nursing Station
 - IT switch with cabinet for IT reticulation of the building
 - The IT shall be linked onto existing IT network
- Access Control
 - Access Control system for main entrance door and exit door at the back of the building
 - The system shall entail – Controller, Biometric Reader, Touch Free release button and door magnets
 - The system shall be integrated to Fire Detection
- Produce marked up As-Built drawings
- Produce Operation & Maintenance Manuals for the all new installations

HVAC INSTALLATION:

Installation of Air Conditioning equipment to CICU:

- Existing, uninstalled, TOSHIBA model MMY-MAP1806FT8P-E VRF 44.0 kw outdoor Heat Recovery Condensing Unit, located in plant room, for CICU,
- New TOSHIBA model MMY- MAP1206FT8P-E VRF33.4 kw outdoor Heat Recovery Condensing Unit, located in plant room, for CICU,
- Special condenser elbow fitting, existing, uninstalled,
- Refrigerant reticulation,
- Selector boxes,
- Branch Kits,

- Indoor cassette units,
- Wired remotes,
- Trunking / Wire Basket / Conduit and Condensate

Installation of new fresh air ventilation to CICU:

- Ducted branch reticulation, main supply ducting already installed in plant room,
- New ducting and branch reticulation,
- Axial Fans,
- Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled, & new equipment,
- Cleaning & sanitising existing 300 x 300 mm fresh air duct,
- Removal of redundant 100 x 100 mm fresh air ducting,

Installation of new extract air ventilation to CICU:

- Ducted reticulation,
- Axial Fans,
- Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled, & new equipment,

Installation of Air Conditioning equipment to CSSD:

- Installation of existing ceiling cassettes,
- Installation of new ceiling cassettes, selector boxes, branch kits,
- Refrigerant reticulation,
- Wired remotes,
- Trunking / Wire Basket / Conduit and Condensate

Installation of new fresh air ventilation to CSSD:

- Ducted reticulation,
- Axial Fan,
- Filter boxes & filters + installation of magnihelic pressure units, existing, uninstalled,

Sundries:

- Completion of enclosure for HVAC equipment

Testing and Commissioning, as per SANS regulations,

Manuals, Drawings, OEM Literature,

FIRE DETECTION INSTALLATION:

- Installation of new early warning fire detection & suppression equipment, as per SANS 10400 Section T and SANS 10139 to the following areas:
- CICU – install new fire panel + loop + new line units,
- CSSD – cut into existing loop and extend to cover CSSD unit + new line units,
- Installation of new fire equipment signage, as per SANS 1186,
- Testing and Commissioning, as per SANS 10400 Section T and SANS 10139,
- Manuals, Drawings, OEM Literature,

MEDICAL GAS INSTALLATION

- Cut into existing hospital trunk main for supply to CICU,
 - Installation of new medical gas:
 - Reticulation,
 - Area valve service units,
 - Pressure sensors,
 - Outlets:
 - Oxygen,
 - Vacuum,
 - Medical low-pressure air,
 - Connection of medical gas piping to pendants (supplied by others)
 - Alarm panel,
 - Testing and Commissioning, as per SANS regulations,
 - Manuals, Drawings, OEM Literature,
2. The CHSS contains clauses that are generally applicable to construction and imposes controls associated with activities that impact on human health and safety.
 3. The Principal Contractor is required to comply with the provisions of the OHS Act, all applicable Regulations and this CHSS.
 4. The client Agent will monitor the Principal Contractor's compliance with the requirements of the OHS Act and the approved H&S Plan.

8. Compensation for Occupational Injuries and Diseases Act

1. The Principal Contractor, each contractor and each sub-contractor shall submit proof of Good Standing with the COIDA Commissioner, or a Mutual Association licensed in terms of Section 30 of COIDA, prior to starting any work on the site.
2. A copy of the Letter of Good Standing with the COIDA Commissioner must be included in the OHS file of each contractor working on the site and must remain updated for the duration of the construction work. Letter of good standing should be updated as and when required.
3. Contractors whose Letter of Good Standing expires will not be permitted to continue work. Proof of payment and acknowledgement from the COIDA Commissioner must be provided before approval to commence with work may be granted by the Agent.

9. Application for Work Permit

1. This project triggers the application for a construction work permit based on the estimated duration.
2. The Principal Contractor shall assist the Agent in compiling the evidence required by the Department of Labour for the issuing of a Construction Work Permit.
3. The Principal contractor shall ensure that the correct H&S information is presented for approval and includes but is not limited to: A detailed list will be provided to the successful bidder –

- a) Appointment letter, Contract and CR 5(1)(k)
 - b) Signed Mandatary Agreement in terms of Section 37(2)
 - c) Signed Acknowledgement of specification and baseline risk assessment
 - d) Evidence that the Principal Contractor made adequate provision for the cost of H&S measures.
 - e) Evidence that the Principal Contractor has the necessary competencies and resources to carry out the construction work safely by providing Site Organogram - align appointments with CR 2014 and relevant regulations
 - f) A copy of the letter of appointment for Section 16.2 with competency proof.
 - g) A copy of the Letter of appointment of the Construction Manager CR 8(1), Safety Officer CR8(5) and Construction Supervisor CR8(7) + proof of the qualification certificates must be certified, certified identify document, and registration, where applicable
 - h) Proof of the registration of the Principal Contractor's safety officer with the SACPCMP must be submitted as well.
 - i) Valid letter of good standing with the COIDA.
 - j) H&S Policy
 - k) Project Specific H&S Plan.
 - l) Project emergency management plan
 - m) Project fall protection plan
 - n) Project baseline risk assessment
 - o) Demolition method statement
 - p) Hoarding layout drawings
4. A list of additional information from the Agent will be issued when the need arises and when applying for the construction works permit.

10. Construction Manager and Construction Supervisor

- 1. The principal contractor shall appoint a full-time competent person as the construction manager with the duty of managing all the construction work on the sites.
- 2. The construction manager must be exclusively dedicated to this project.
- 3. Proof of competency of the construction manager shall be incorporated in the H&S file; the client or its Agent shall only allow work to commence if the designated construction manager has sufficient evidence of H&S competence and, as a minimum this shall include:
 - a. Proof of professional training
 - b. Proof of experience in the construction scope of work relevant to this project nature
 - c. Proof of experience in general H&S management for work as defined in the scope

4. The principal contractor shall appoint competent construction supervisors for the project.
5. The construction manager and the supervisors shall be assisted by the appointed safety officer and, where such an arrangement is planned, the H&S plan of the Principal Contractor shall clearly define the respective duties of the construction manager, construction supervisor and the safety officer.
6. The construction manager and supervisors shall ensure that the H&S plan is implemented from the commencement of for the duration of the construction work.
7. The construction manager shall ensure that the H&S plan is reviewed and updated as work progresses.
8. The construction manager shall provide contractors and sub-contractors with this CHSS.
9. The construction manager with support of the safety officer shall only approve a H&S plan of a contractor and a sub-contractor if there is sufficient evidence that the contractor:
 - a. Has made sufficient provision for health and safety measures during the construction process
 - b. Has the necessary competencies to perform the construction work safely; and
 - c. Has made the necessary resources available to perform the construction work safely.
10. The construction manager shall ensure that all contractors appointed by the Principal Contractor have an approved H&S plan, prior to appointing the contractor and prior to allowing the contractor to start working on site.
11. The construction manager shall ensure that contractors have evidence of both registration and good standing in terms of COIDA and shall not permit any contractor to start work or to continue with work on site unless a valid Certificate of Good Standing is on site.

11. Construction Safety Officer

1. The Principal Contractor shall appoint a competent Construction Safety Officer for the project.
2. The Construction Safety Officer shall be full time on site.
3. The Principal Contractor shall define the duties of the appointed safety officer in the H&S plan.
4. The safety officer shall be registered with the South African Council for the Projects and Construction Management Professions or have proof of applying for such registration.
5. The Principal Contractor should ensure in addition to the above, the safety officer should have a minimum of three years' experience within the built environment as a safety officer.
6. Proof of competence and registration of the appointed construction safety officer must be included in the H&S file.

7. The Principal Contractor together with the appointed sub-contractors must conduct an assessment to determine appointment of their safety officers, this assessment should consider the scope and size of the sub-contractors works, applicable risk control measure to be implemented and conclude the necessity to appoint full or part time registered safety officer to site. This assessment and conclusion must be communicated to the Agent before the sub-contractor commence on site.
8. The safety officer shall ensure that a list of all the contractors on the site is kept in the H&S file. The list must refer also to the work performed by the contractors, the date of the approved H&S plan, the expiry date of the COIDA Letter of Good Standing, and if compliance monitoring is conducted.
9. Daily inspection must be conducted by the principal contractor safety officer and formal communication via email or inspection report must be issued on a weekly basis to the site management . The safety officer should ensure a monthly report be compiled on a template provided by the client. Refer to Annexure A.

12. First Aid Management

- 1 The Principal Contractor shall ensure that adequately trained first aiders are available site.
- 2The Principal Contractor, any contractor or sub-contractor shall ensure that it appoints a trained First Aider on site regardless of number of labours on site.
- 3 First aiders shall be identified and shall have immediate access to a comprehensively stocked first aid box. Considering the project consist of three sites, all sites should have their own first aid boxes on site
- 4 Such first aid box shall be stocked to include all first aid equipment as per the minimum requirements listed under General Safety Regulation 3, and any additional items identified in the risk assessment.
- 5 Where shift work is performed, each shift shall comply with the above first aid requirements.

13. Health and Safety Representatives

1. The principal contractor should ensure that competent health and safety representatives are appointed. Each health and safety representative should be assigned to a site and conduct the daily H&S representative duties on site.
- 2.Health and Safety representatives should be trained, and training certificates should be included in the H&S files.
- 3.The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in the OHSA.
- 4.The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on site.
- 5 The H&S presentative shall work closely with the appointed construction supervisor on site and shall report to the Health and Safety Officer and Construction Manager on any health and safety related challenges and concerns.

14 Project General Risks Management

1. Health Risks and Medical Surveillance

The appropriate SDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works. Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the works.

All permanent workers (including those of Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Medical surveillance will commence at pre-employment.

All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Annual medical surveillance is required (unless identified as being required more frequently), as well as an exit medical.

Arrangements for keeping medical records for the required time are to be noted.

It is preferable that the PC has a medical surveillance plan.

Full medical records are not to be placed in the H&S file.

A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed. Given the potential health risks the following aspects are to be included in each medical surveillance intervention:

Full medical, surgical and occupational history;

Full physical examination of all systems; and

Referral if required for the management of identified health issues that may affect the worker. Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

Audiometry (hearing tests); and

Any other tests identified as relevant from chemical or specifically identified risks of exposure

Failure to do so will be considered a serious offence.

2. General Environmental Conditions

Compliance with the Environmental Regulations (as amended), among others is required.

Environmental monitoring of ventilation, lighting and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment.

Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

Any spillages of substances which could be toxic to persons must be dealt with adequately. The Contractor must include his spillage removal system in the OHS Plan.

3. Noise Risks

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations.

Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense. Failure to do so within a reasonable time will result in such plant being removed from site.

Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing. Temporary labor working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB. Audiometry records are to be available in the H&S file.

Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 db. Failure to do so will be considered a serious offence

15. Principal Contractor's Health & Safety Plan

1. The Principal Contractor shall submit a documented and project specific health and safety plan and H&S file for this construction project for approval from the Agent.
2. This H&S plan & file must be presented to and approved by the agent prior to the site being handed over to the Principal Contractor and prior to the Principal Contractor being allowed on site. No work may start- by any Principal or other Contractor unless the relevant health and safety plan is approved, and the construction works permit is obtained.
3. The plan should cover the requirements identified in Annexure A.
4. Besides the legal requirements, the site-specific health and safety plan shall include:
 - a. A cover page indicating:
 - i. The contract references
 - ii. The name and address of the Contractor
 - iii. The name of the designated person in terms of section 16(2) representing the contractor
 - b. Index for the H&S plan
 - c. A detailed site-specific overview of the scope of works for the project; this overview must include all work controlled by the Principal Contractor, whether directly or through the services of a contractors or sub-contractors.
 - d. An overview of the PPE to be used and the management of such PPE on site.
 - e. A list of the inspection registers which will be kept on site.
 - f. The site-specific health and safety induction document used to ensure that all employees and all visitors on site are conversant with the risks on site and the content of the health and safety plan and what role they are expected to play in ensuring health and safety on the construction site.

16 Hazard Identification and Risk Assessment

1. The Principal Contractor shall appoint competent person(s) to perform a site-specific baseline- and, thereafter, ongoing issue-based hazard identification and risk assessments. There may be more than one risk assessor appointed if this is required.
2. The competent risk assessor(s) shall form part of the construction team working on the construction site.

3. The risk assessment must be based on the scope of work, the site-specific materials required, and the site-specific machinery, equipment and structures applied during the construction. The contractor should ensure the risks associated with working at an operational hospital is adequately accounted for and included in the risk assessment.
4. The baseline assessment shall be included in the H&S file.
5. Additional risk assessments shall be conducted when:
 - a. A new machine is introduced onto site
 - b. A system for work is changed or operations altered
 - c. After an accident or near miss has occurred
 - d. New knowledge comes to light and information is received which may influence the level of risk to employees on site.
6. All risk assessments shall be conducted in terms of an acceptable and documented methodology, prior to commencement of work and in accordance with the provisions of the CR.
 - a. The risk assessment shall take into consideration the hierarchy of controls:
 - i. Possible eliminations of risk
 - ii. The planned engineering controls mitigating the risk
 - iii. The planned administrative controls, including
 - a) Competency and responsibility appointments
 - b) Method statements and/or safe work instructions, training and competency
 - c) Occupational hygiene measurements
 - d) Workplace organisation, including demarcation, signage, colour coding, routing, housekeeping, storage, stacking, access
 - e) Emergency controls
 - f) Medical fitness testing, medical surveillance and job placement requirements v. PPE
7. The principal contractor shall include a method for risk review ensuring that all risks on site are adequately managed on site.
8. All risk assessments must document all H&S controls.

17 .Health & Safety File

1. The Principal Contractor shall provide and maintain an H&S File, containing all relevant documents as prescribed in the OHSA and applicable Regulations and all forms or records referred to in the H&S Plan
2. The H&S file shall be presented together with the H&S plan for approval prior to work starting.
3. The H&S File shall be kept on the construction site and available for inspection by the client Agent or the Department of Labour's Inspectors.

4. The content of the H&S file shall follow a specific order as per Annexure B of this document. All three sites should have a valid health and safety file on site.
5. The H&S File becomes the property of the client after completion of the project. The principal contractor is also required to scan the file in an electronic format and hand over the electronic format.

18. Health and Safety Committee

1. Health and Safety Committee
 - a. The Principal Contractor shall ensure that the H&S committee meets on a monthly basis.
 - b. The Principal Contractor's management and each contractor shall be represented at the H&S committee meeting; contractors with more than 20 employees shall have an H&S representative at each committee meeting and each contractor shall have a management member attending each H&S committee meeting.
2. Record of the Health and Safety Committee shall be communicated to site management with actions assigned to the concerns highlighted in the committee meeting.
3. Site management must form part of the committee meeting and the client and/or agent may be invited to the meeting once in three months.
4. Meetings should be kept to a minimum and be held outside to maintain social distancing.

19. Close-Out and Consolidated H&S file

1. The Principal Contractor shall compile a consolidated H&S file and hand this to the Agent at the end of the project handover this shall be applicable to all contractors and sub-contractors as well.
2. The Principal Contractor shall therefore submit a consolidated close out file inclusive of all contractor information.
3. The consolidated H&S file shall be in hard copy and in CD format.
4. The consolidated file shall include:
 - a. All legal appointment and 37.2 Agreement from the Client to the Principal Contractor
 - b. A copy of the approved H&S plan of the principal contractor
 - c. The H&S file of the Principal Contractor, which, amongst the other, shall have include:

- i. Project H&S plan Approvals Record
 - ii. Project H&S management plans, H&S plan, Fall Protection, Emergency plan, Traffic management
 - iii. Project Baseline Risk Assessments
 - iv. Designer inspections/assessments and confirmation of conformance
 - v. Incidents registers & IOD investigation record
 - vi. COIDA Claim incidents and supporting medical treatment record
 - vii. Monthly H&S audit reports from the Agent and the enjoining corrective action reports
 - viii. Endorsed minutes of H&S Committee meetings
- d. A reference record of all drawings, designs and materials used
- e. A reference record of H&S statutory certificates required by the owner; this reference record shall indicate the designated person at the principal contractor, who is responsible for the document and the client-designate to whom the document has been handed. Reference records applicable to this project may include:
 - i. Electrical certificate of compliance
 - ii. Pressure equipment certificates, including those for fire extinguishers
 - iii. Ventilation extraction certificates
- f. The comprehensive list of all the contractors on site accountable to the principal contractor.
- g. An index of all inspections and reference to the inspection registers for the site
- h. A list of all responsible persons appointed in statutory positions for the duration of the project
- i. A list of all occupational injuries and diseases including the name of the injured, the reference number of the Annexure I document and the reference number of the COIDA notification of the injury (if any)
- j. All documents relating to any reportable injury or disease during the construction work, as defined in Section 24 and 25, of the Occupational Health and Safety Act,
- k. Handover of the consolidated H&S file must be done within two weeks of all personnel having been demobilized (i.e., when nil man-hours are recorded).

20. Induction and H&S awareness

1. Each employee working on site must be inducted in health and safety. The induction should take into consideration the work environment at the various areas. Employees should stay away from areas where construction works is not performed.
2. The Principal Contractor shall develop project-specific induction training programme in health and safety for the site, to ensure that all employees on site are conversant with:
 - a. The introduction of the project
 - b. The risks of the construction project
 - c. The responsible persons in key positions such as construction manager, safety officer, first aiders, fire fighter etc
 - d. The role of employees in ensuring health and safety on the construction site
 - e. The emergency arrangements
 - f. The general health and safety rules applicable to the site.
3. The Principal Contractor shall ensure that all employees have gone through the induction training before commencing duties on site. Inductions should be conducted on all three sites and record of the induction should be included in the H&S file for that particular site of the project.
4. The method of ensuring that all employees are inducted will be documented in the H&S Plan and the Principal Contractor is advised that a generic induction will not be accepted.
5. When working on the site, each employee of any contractor and sub-contractor accessing the site, including management, shall complete the principal contractors' induction; the principal contractor shall ensure that none of his or his contractors' employees accesses the site unless having been inducted by the principal contractor.
6. Each visitor to the site shall be inducted in the risks and risk controls which the visitor may be exposed to. This includes, the client representatives, consultants and any other stakeholders whom enters site.

21. Health and Safety Training

1. Competency of employees and ongoing training in H&S matters shall be documented by including a training & competency matrix.
2. The Principal Contractor shall ensure that specific pre-task health and safety instructions are given to all employees.
3. The methods for ensuring that training in safe work instructions and that pre-task instructions occur shall be described in the H&S Plan.

22. Inspection, Monitoring and Reporting

- 1 The Principal Contractor shall carry out regular safety planned task observations on high-risk activities and planned H&S inspections on the site and shall take steps to rectify any unsafe acts or condition.
- 2 The appointed Construction Manager and the Safety Officer shall perform regular inspections and document these in the H&S File.
3. The relevant inspection templates and the frequency of inspections shall be included in the H&S file. Each inspections should make specific reference to the site.
4. The H&S Plan shall contain a list of all the inspection registers which shall be kept on site and templates of such must be available in the H&S file:
 - a. The templates must correlate with the machinery and equipment listed on site;
 - b. The inspector responsible for the inspection and maintenance of the register must be appointed in writing. Proof of training and competency in the performance of the inspections must be documented.

23. Incidents, Accidents, Near Misses and Emergencies

1. All near misses, incidents and accidents must be recorded, investigated and managed in accordance with the statutory provisions.
2. Each H&S incident, near miss and accident must be recorded in a register kept in the H&S file; a template of the register shall be included in the H&S file.
3. Every accident shall be reported to the Agent as soon as the principal contractor site management becomes aware of it.
 - a. Such reporting must occur via direct contact (person-to-person or via telephone) and via e mail to xavier.redcliffe@xaks.co.za and/or luks@xaks.co.za
 - b. Incident Investigation process must be followed by competent role players and a preliminary investigation report must be submitted to the Agent and Owner within 24 hours for review and comment.
 - c. Final investigation must be finalized by the Principal Contractor and submitted to the Agent within 7 working days, unless requested otherwise.
4. The principal contractor is required to immediately visit the accident scene to verify the conditions, the safety officer and incident investigator must ensure relevant evidence such as witness statements, photos of the equipment in use and the specific area is taken.
5. A record of all incident investigations shall be kept in the health and safety file and all records shall be made available to the client without exception; this includes records relating to Section 24 of the OHSA.

6. Where a fatality or permanent disabling injury or any incident referred to in Section 24 occurs on the construction site, the Principal Contractor must ensure that the provincial director is provided with a report contemplated in section 24 of the Act, in accordance with regulations 8 and 9 of the General Administrative Regulations, 2013, and that the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site as far as is reasonably practicable.
7. The Principal Contractor shall ensure that contractors and sub-contractors apply the same measure and shall require that this process is documented in this contractor's H&S plan.
8. The contractor shall document detailed emergency and accident arrangements on site and outline these, in detail, in the H&S file. These arrangements shall be specific for the site H&S risks and shall make specific provisions for:
 - a. A specified ambulance services
 - b. A registered medical practitioner or registered hospital service which can deal with the identified emergencies (in terms of facility, equipment and competence of emergency personnel)
 - c. A method to ensure that the appropriate COIDA documents are available on site, so that prompt medical aid, as defined in the COIDA, may be available to any injured employee.
9. The emergency arrangements shall be displayed on site and shall include:
 - a. A comprehensive emergency and evacuation plan
 - b. An emergency flow chart
 - c. An updated list of emergency telephone numbers

24. Audits and inspections

1. The Agent shall conduct regular health & safety inspections and audits to ensure legal compliance and compliance with the Principal Contractors' H&S Plan.
2. Records of findings and audits shall be kept in the Principal Contractor's H&S File together with a record of any non-conformance report, investigation and corrective & preventative action.
3. The Principal Contractor shall document corrective action planning and forward this to the Client Agent within 72 hours of receiving a finding.
4. The Agent shall stop all or any work which does not conform to the H&S Plan whilst the inspection is conducted.
5. The Principal Contractor shall conduct and document monthly health & safety audits of all contractors and sub-contractors to ensure compliance with the OHSA, its Regulations and the Principal Contractors' H&S Plan and of this contractor's H&S plan.

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

25. Hot Work, Fire Risks, Fire Extinguishers and Fire Fighting Equipment

1. No open uncontrolled fires are allowed on site.
2. No smoking is allowed on site, except in designated smoke areas, identified by the Principal Contractor. The H&S Plan shall include the Principal Contractors' arrangements for managing smoking on site.
3. All flammable products must be stored in an adequate storage facility; this process shall be documented in the H&S Plan.
4. The Principal Contractor shall provide suitable fire extinguishers, which shall be serviced regularly, in accordance with the manufacturer's recommendations. The Principal Contractor shall not be allowed to use the Hospital's Fire Fighting Equipment.
5. Safety signage shall be prominently displayed in all areas where fire extinguishers are located. The Principal Contractor shall arrange for the training of the relevant personnel, in the use of fire extinguishers.
6. The fire extinguisher inspection register and the letter of appointment of the competent inspector shall be included in the H&S Plan.
7. No hot work is permitted on site or in the builders' yard unless appropriate screens, fire prevention, fire extinguishing and a documented safe work permit system are all in place.
8. The principal contractor shall include a hot work method statement in the H&S plan for approval. Each person perform hot work shall be trained in the use of a fire extinguisher and this training shall be documented in the H&S file.

26. Live Energy Work and Electrical Reticulations and Machinery

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

2. The Principal Contractor shall appoint a competent person to identify and inspect all exposed underground cables, overhead cables or any other electrical installations to ensure that these are not a hazard to any person.
3. The competent person shall certify and inspect all temporary electrical installations and machinery; the frequency shall be determined in the H&S plan.
4. The letters of appointment, proof of competency and registers applicable to these inspections shall be included in the H&S file.
5. All electrical cables shall be assumed “alive” and, where applicable, the Principal Contractor shall take adequate steps to ensure that all persons are prevented from accessing any electrical installations.
6. All existing electrical services must always be assumed live.
7. No live energy work shall be performed. Contractors will ensure that all energy is brought to zero potential, that residual energy is purged, that energy sources are switched off and locked out by all employees working in the danger zone and are tagged, prior to any work being performed on the energy source or reticulation. The contractor shall include a zero Potential, Lock Out and Tag Out method statement and safe work instruction(s) in the H&S file.
8. No electrical machinery shall be allowed to have any joined leads.
 9. The principal Contractor shall ensure that all electrical testing equipment to be used on site has a valid calibration and that the calibration sticker is affixed to the equipment, clearly indicating the calibration date and the next due date.
 10. Any unsafe condition shall be reported immediately to the client and the Principal Contractor shall take immediate steps to prevent employees or members of the public from gaining access to the dangerous installation and the area surrounding it.
 11. The Principal Contractor shall appoint a competent person to inspect all portable electrical tools, including leads. The letter of appointment and template of this inspection register shall be included in the H&S file
 12. The Principal Contractor shall include a method statement for the safe use of portable electrical tools, including the management of the hazards of extension leads.
 13. Where temporary installations are installed a COC for these installations shall be included in the H&S file.
 14. Where applicable, the contractor shall include any ‘electrical dangerous work procedure’ in the H&S file.

27. Personal Protective Equipment and Clothing

1. The Principal Contractor shall ensure that every employee is issued with, and wears SABS-approved PPE, consisting of all PPE identified in the risk assessment.
2. All the contractors' employees shall wear worksuits that are easily identifiable on site.
3. All employees performing construction work shall wear steel-capped safety boots and a hard hat.
4. Hard hats with chinstraps to be used by all employees working at the Staircase. Any visitor, professional or client should wear hardhat with adequate chinstrap when visiting that particular area.
5. Employees working in the vicinity of mobile plant or construction vehicles shall wear a reflective vest; reflective stripes on overall do not meet the required visibility and shall not suffice.
6. The use of respiratory protective equipment shall be defined in the site risk assessment and validated at the hand of hygiene measurements of airborne pollutants for the specific risk.
7. The H&S Plan shall outline the PPE to be used and the management of such PPE on site, including the issuing of PPE, overnight storage, and all disposal of PPE.
8. Failure to use protective equipment as per the site risk assessment shall require disciplinary intervention and this process shall be documented in the site induction.
9. Disposal of PPE must conform to the Environmental Regulations for Workplaces as well as r relevant Environmental Legislation.

28. Occupational Health and Safety Signage

1. The Principal Contractor shall erect and maintain quality safety signage. This signage should include information signs, warning signs, mandatory signs and emergency signs.
2. Signage should be position at all entry and exit points leading to and from the construction works activities. Signage should be displayed where hoarding is erected to inform members of the public using the hospital facilities of the construction works in progress and no unauthorized entry into the construction areas.
3. The signage shall include, but is not limited to:
 - a. The construction work in progress
 - b. Access restrictions/ No unauthorised entry
 - c. A sign indicating that all visitors must report to the site office and must be accompanied by the principal contractor when accessing the site
 - d. First aid location
 - e. Fire extinguisher location

- f. The name and telephone number of the responsible person(s)
- g. Emergency telephone number(s)
- h. Mandatory PPE to be worn at the site
- i. Where falling objects may occur, relevant barricading and warning signs must be erected.
- j. Excavations, heights structures, temporary structures and all risk areas must be indicated in the H&S plan.

29. Contractors and Sub-contractors

1. Contractors and sub-contractors must be given a copy of this H&S Specification and any additional specification issued by the client and shall comply with these specifications integrally. All employers working on this site shall conform to the standard in the CHSS. All the duties of a Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors.
2. The Principal Contractor shall ensure that all contractors and sub-contractors under his control, plan the construction work adequately, approved by the Principal Contractor; and the H&S plan and H&S file shall be in accordance with Annexures A and B respectively prescribed in this document.
3. Whenever a contractor or sub-contractor's H&S plan is approved, the Principal Contractor shall communicate with the Agent for acknowledgement of the approval done by the Principal Contractor.
4. Principal Contractors shall ensure that all contractors and sub-contractors comply with their H&S Plans, based on all applicable H&S Specifications, the requirements of the OHSA and all other relevant legislation.
5. The Principal Contractor shall ensure that the comprehensive and updated list of all the contractors and subcontractors on site includes:
 - a. A reference to the agreements between the parties, including all contractors' Section 37(2) agreements with the Principal Contractor.
 - b. The type of work being done.
 - c. The date of the approval of the H&S plan.
 - d. The date of expiry of the COIDA certificate of good standing.
 - e. The date of the last monthly audit.

30. Fall Protection and Fall Risk Work

1. The Principal Contractor shall submit the name and the curriculum vitae of the competent person who has been appointed to prepare the fall protection plan together with the signed letter of appointment, in the H&S file.
2. The fall protection plan shall comply with the requirements of the OHSA and the planning shall be commensurate with the fall risk work.

3. The fall protection plan shall include all fall risk work which is planned to be performed by contractors or subcontractors
4. The Principal Contractor and any contractor shall ensure that All fall risk work is planned and forms part of the safe task instructions; note that:
 - i. Work from a ladder or work where ladders are used as access tool are potential exposures of employee to falling either from, off or into and such work is considered 'heights work'.
 - ii. There is no minimum of maximum height defining fall risk.
 - iii. Fall risk work done on an ad hoc basis or which forms part of abnormal or emergency processes shall be risk assessed and employees shall be instructed in the safe work process prior to work commencing.
 - a. Only trained and competent persons with a valid medical certificate of fitness are permitted to perform fall risk work.
 - b. All medical certificates of fitness for fall risk work are issued by a registered occupational medical practitioner and are included in the H&S file.
 - c. No person must be allowed to work under an area where there is a risk of falling tools or materials.
 - d. As far as reasonably possible all openings through which persons can fall are closed off with material which can support the weight of a person; such material shall be permanently fixed over the opening.
 - e. All decks, shafts or other areas where persons can fall off shall always have adequate edge protection which will of adequate strength in order to prevent a person from falling off the edge. Regular inspection must be conducted on all temporary edge protection that serves to prevent employees from falling.
5. A copy of the fall protection plan, the signed appointment letter and proof of competency must be included in the H&S file and the methodology must be defined in the H&S plan.
6. Where the use of any harnesses is indicated in the fall protection plan, the H&S Plan shall contain the following:
 - a. The need for the use of fall prevention- or fall arrest harnesses
 - b. The safe application, attachment and maintenance processes for harnesses
 - c. The type of harness and the type of hook to be used
 - d. The specific attachment points applicable to the fall risk work; any safety attachment shall be risk assessed by a competent person appointed in writing who shall also inspect and finally approve the attachment.
 - e. The method of storing the harnesses when not in use
 - f. The method and register for the safety inspection of harnesses
 - g. A fall recovery method statement.
7. Where a fall-risk is identified in work requiring access to temporary works, high walls, decks or roofs construction, a lifeline will be available and always used; the lifeline will be designed and erected by a competent person appointed in writing; a lifeline inspection method

and record will be included in the H&S Plan; adequate provisions for fall recovery must be documented.

8. Where work is performed where there is a fall-through risk, the safe drop zone shall be determined and must be adequately managed to prevent injuries.

The principal contractor should consider the following factors:

- Access and egress points to the multiple storey high facility.
- Physical conditions/hazards on top of the roof. Several pipes, cables and satellite are fitted on the roof.
- Although edge protection is fitted to most parts of the roof, certain section has no edge protection/guard rails and the condition of the existing are to be carefully assessed and inspected before use. Temporary solid edge protection to be fitted to the section where there is no railings.
- No works at height should be performed in Hazardous weather. An anemometer should be available on site and measures should be conducted daily and recorded on a register.

9. The principal contractor will have to implement measure that will prevent anything from falling while working on the roof. No small parts, material and equipment should fall down and potentially placing employees or residents are risk of being struck by falling parts. Toe boards to be considered to prevent accident kicking of material and equipment. Safe clearance distance should be created at ground level.

10. The principal contractor should make provision for suitable fall prevention and fall arrest measures to be implemented on site.

11. In the event of an incident the principal contractor should have an emergency rescue plan in place that forms part of the fall protection plan.

31. Ladders

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

32. Demolition Work

1. The demolition work during the construction must be addressed through a specific issue-based risk assessment and method statement by a competent person appointed in writing.

2. The method statement must include the engineering survey, where applicable, and shall be approved in writing by the construction manager.
3. The H&S plan must document the name, signed letter of appointment, competency and the curriculum vitae of the competent person(s) appointed to supervise all demolition work.
4. Safe work instructions for employees performing demolition works must be documented in writing.
5. The principal contractor should assess the risk of asbestos material before demolition works are undertaken, should the contractor be uncertain of whether specific material is asbestos, the principal contractor should inform the Principal Agent immediately.
6. The risk of the demolition structure collapsing in an uncontrolled manner must be managed, all demolition works must be directed away from the temporary operational decanted areas.
7. The principal contractor should submit the demolition work risk assessment and method statement with the H&S file approval.

33. Temporary Work

1. Temporary works designer

- a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works designer in the H&S file.
- b. The temporary works designer shall be competent to design, inspect and approve the erected temporary works on site before use.
- c. The principal contractor, the construction manager and the temporary works designer shall ensure that:
 - i. The temporary works drawing, or any other relevant document includes construction sequences and methods statements.
 - ii. The temporary works designer has been issued with the latest revision of any relevant structural design drawing.
 - iii. The temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site.
 - iv. The temporary works drawings are approved by the temporary works designer before the erection of any temporary works.
 - v. The temporary works design and drawing are used solely for its intended purpose.

2. Temporary works supervisor

- a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works supervisor in the H&S file.
- b. The temporary works supervisor shall supervise all temporary works operations and shall ensure that all equipment used in temporary works structure are carefully examined and checked for suitability before being used.

3. The Principal Contractor shall define risk controls in the H&S plan which ensure:

- a. That a team of competent persons adequately erect, support brace and maintain all temporary works structures; the H&S plan shall contain the evidence that all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely.
- b. That all temporary works structures can support all anticipated vertical and lateral loads that may be applied to them and that no loads are imposed onto the structure that the structure is not designed to withstand; this includes the requirement that the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.
- c. That all temporary works structures are done with close reference to the structural design drawings.
- d. That, where any uncertainty exists, the services of a structural designer are available, and that consultation and advice is acquired prior to risk work performed.
- e. That all erected temporary works structures are inspected and approved by the temporary works designer before use.
- f. That all temporary works structures are inspected by the temporary works supervisor immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least daily until the temporary works structure has been removed; the inspector must be appointed in writing and proof of competency must be included in the H&S plan.

The register documenting the results of the inspection must be placed in the H&S file.

- g. That no person casts concrete or place a load on a temporary work structure until authorization in writing has been given by the designer.
- h. That after casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load and is not removed until authorization in writing has been given by the temporary works supervisor.
- i. That any non-conformity identified during work with temporary works structures is prevented and corrected.

- j. That all access to temporary work structure is solely by means of secured ladders or staircases for all work to be carried out above the foundation bearing level and fall prevention structures must be erected preventing persons from falling off the temporary work structure during erection & dismantling, during the casting of concrete, during inspections and during any work performed on top of the structure after casting.

34. Excavation

1. The letters of appointment and proof of competency of the competent excavation supervisors and inspectors shall be placed in the H&S file.
2. A template of the inspection registers must be placed in the start-up H&S file.
3. The principal contractor shall take cognisance of the geotechnical study pertaining to the conditions of the construction site and must plan all excavation work in accordance with the recommendations of the professional engineer.
4. The principal contractor must ensure that every excavation, including all bracing and shoring, is inspected daily.
5. All excavations must be left open for the minimum of time required and those that are left open on the site must be protected by a barrier or a fence of at least one metre in height. The protective barrier or fence must adequately prevent persons from falling into the excavation and barrier taping is not sufficient for this purpose.
6. Excavation shoring and bracing, if required, shall be designed by a designer appointed in writing, who shall inspect and approve the installed shoring and bracing.
7. Where persons work, inspect or test excavations, warning signs must be in place next to an excavation.
8. The risk controls for ensuring excavation safety, including working inside and around excavations must be documented in the H&S plan.
9. The soil condition and the recommendations in the Geotechnical Investigation conducted on the construction footprint must be adhered too by the principal contractor, the report is available and should be requested by the Principal Agent.

35. Scaffolding

1. The Principal Contractor shall ensure provision for safe access scaffold is provided for the project
2. The Principal Contractor shall appoint a competent specialist scaffolding contractor to erect, management and dismantle all access scaffolding including the temporary emergency escape staircase at the Protea Flats site.
3. Temporary access scaffold staircase to serve as temporary fire escape only until completion of new fire escape staircase.

4. The H&S file must include the signed letters of appointment and the proof of competency.
5. The Principal Contractor shall ensure that all scaffolding complies with the requirements of the OHSA and Regulations and with the requirements of Temporary Works in this CHSS.
6. All scaffolding requirements shall be implemented accordingly to the applicable latest scaffolding sans code. Inspections by the scaffold inspector must be documented on the scaffold tag and in a register; a template of the tag and of the register shall be included in the H&S file.
7. All scaffolds must be accessed with a ladder only. Ladders must be inside the scaffolds and hatches must close ladder-openings in decks.
8. All scaffold decks must be fully covered and barricaded to prevent persons working there from falling off.
9. Scaffold erectors must always attach a fall prevention harness; the double lanyards must be fitted with scaffold hooks only.
10. The H&S Plan shall include the safe work instruction applicable to all employees working on scaffolds and the method of ensuring competency.
11. Standard scaffolding designs approved by a competent designer of the Principal Contractor may be included in the H&S file and all such scaffolds on site must conform to this standard.

36. Public Health & Safety

1. The site shall always be secured to prevent the unauthorized access of persons to construction risk areas and processes.
2. Consideration the site situated in a fully operational hospital, specific hoarding requirements must be implemented thus separating the construction and operational areas of the hospital.
3. The hoarding should not only protect the public from the dangers of the construction works within the site but should also act as a barrier to prevent trespassing.
4. The hoarding should have at least two entry points thus taking into consideration emergency scenarios on site.
5. All the sides exposed to the public hospital users should be free of all hazards such as exposed nails, sharp edges or any unsafe conditions.
6. All members entering site must indicate in what capacity they are visiting site and the visitors register must be completed and signed.
7. The Principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards likely to arise from on-site activities and the precautions to be observed to avoid or minimise those risks.
8. Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

37. Night and Week-End Work

1. No night- or week-end work shall be performed unless authorised by the Principal Agent.
2. Where week-end work is planned, the principal contractor shall ensure that its construction supervisor and the safety officer is on site; this applies even if only contractors or sub-contractors are working on the site.
3. Where week-end work is planned, each contractor or sub-contractor shall ensure that its construction supervisor is on site; this applies even if the principal contractors' manager or supervisor is on the site.

38. Facilities for Employees

1. The Principal Contractor shall provide employees facilities as required in the applicable Regulations. These shall include the following:
 - a. The provision of facilities for safekeeping
 - b. The provision of an eating area
 - c. The provision and maintenance of sufficient toilets on site.
 - d. Drinking Water
2. Contractor's toilets must be:
 - a. Fixed to avoid becoming wind-blown
 - b. Sign-written: 'Male' and 'Female' use
 - c. Sanitised daily; an inspection and sanitising record must be kept in the H&S file
 - d. Inspected daily and, where bucket collections are in place, emptied at least twice a week and one of these occasions must be on Fridays.
 - e. Arrangement in terms of toilet facilities can be made with the hospital and documented in the H&S plan.

39. Cranes Operations , lifting and lowering tasks operations

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

1. Each crane shall have (in the cab or operating area), the following legal documents on site always:
 - a. The latest and up-to-date load certificate of the crane.
 - b. A record of the 6-monthly inspection of the crane by a registered inspector.
 - c. The crane operator(s) current crane license.
 - d. The crane operator(s) medical certificate of fitness, issued by an occupational medical practitioner.

-
- e. The inspection registers or certification of 3-monthly inspection of all lifting equipment used with the crane.
 2. The H&S Plan shall include the method statement for safe use of the crane, including the method of communication, the protection of fall zones and the method of determining whether the weather permits safe crane work.
 3. Any fixed crane's load test certificates shall be included in the H&S file.
 4. All lifting equipment and gear used on site shall be identified, SWL-indicated and listed in a register contained in the H&S file.
 5. A template inspection register of the lifting gear shall be included in the H&S file.
 6. Where material hoists are used on site, the principal contractor shall ensure compliance with Construction Regulation 19 and that competent persons are appointed in writing to ensure:
 - a. The correct design and engineering controls are applied on site.
 - b. The material hoist is correctly erected and commissioned and this is inspected and signed off on the applicable register by a competent person appointed in writing.
 - c. The material hoist is inspected and maintained by a competent person appointed in writing.
 - d. The material hoist's operation is documented in a safe work instruction and all users are trained and certified competent in its use.
 - e. The material hoist is inspected daily prior to use by a competent inspector.
 7. Where man-lift equipment is used, the principal contractor shall ensure compliance with Driven Machinery Regulation 18 and that competent persons are appointed in writing to ensure:
 - a. That all scissor lifts, cherry pickers, forklift with man-cages or any other lifting machine used to lift personnel are used only by a trained and competent operator in possession of a competency certificate issued by and accredited provider who holds a valid accreditation issued by an authorised body, in terms of the SAQA Act, and who is approved by the Chief Inspector, in terms the Driven Machinery Regulation 18.
 - b. That all lifting machines are load tested and inspected as required in Driven Machinery Regulation
 8. DMR 18 and that the records thereof are either with the machine or in the principal contractor's H&S file.
 9. The principal contractor shall ensure that deliveries using cranes comply with the above requirements and that all legal documents are kept in the cab of the delivery truck whilst on the Client's site.
 10. Complexed lifting or heavy lifts may require a documented lifting plan.

11. The principal contractor should ensure when dismantling the existing emergency escape staircase at the Protea Flats facility, a detailed conditions assessments must be conducted to determine the stability of the steel structure and the method statement should be development for the dismantling of the staircase. Safe clearance zones should be created at ground level when dismantling of the structure commence. All escape door leading towards the staircase should have temporary information signage informing resident and members of the public that construction work is in process and no entry is allowed.

40. Material Hoist

1. The principal contractor should ensure all legal requirements of the material hoist be adhered to and implemented.
2. The tower of the material hoist must be erected on a firm foundation and secured to the structure or braced by steel wire guy ropes and extends to a distance above the highest landing as required in the Construction Regulations of 2014.
3. The platform of the material hoist should be safe and designed in a manner that is safely contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist.
4. All material hoist designs, installation, operation and maintenance should be in accordance of the requirement stipulated in the Construction Regulations of 2014.

41. Storage and use of flammable liquids

1. No flammable substance must be stored on site unless these are stored in a flammable store; no other materials shall be stored in the flammable store or cabinet.
2. Where required, the H&S Plan shall include a method statement detailing the safe use, storage, decanting and spill controls for all flammable liquids used or stored on site.

42. Hazardous- Chemical Substances

1. With respect to hazardous chemical substances used, the contractor shall ensure that:
 - a. All SDS are included in the H&S file
 - b. A HCS risk assessment is included in the H&S plan
 - c. The safe use, storage, emergency procedures and safe disposal of hazardous substances are addressed in a method statement/s, included in the H&S file.
 - d. Proof of competency and signed letters of appointment of the person responsible for chemical handling, is included in the H&S file.

43. Explosive Fastening Device

1. The Principal Contractor shall submit proof of competency and the appointment letter of the person in charge of explosive actuating fastening devices and of the person in charge of the issuing and collection of cartridges and nails. This shall be placed in the H&S file.
2. The H&S Plan shall include the method statement for the safe use of explosive actuating fastening devices, including the type of PPE, barricading and warning notice which the contractor intends to use and the method of accounting for cartridges and nails.
3. The H&S file shall include proof of training and competency of all operators using explosive actuating fastening devices.
4. A template inspection register of explosive actuating fastening device shall be included in the H&S file.
5. A template record for the issuing and collection of cartridges and nails shall be included in the H&S file.
6. For the purposes of acquisition/storage/transport of the Cartridges, the Principal Contractor is required to hold a permit in terms of the Explosives Act; this Permit for the transportation of Blank Cartridges used in Powder-Actuated Tools shall be placed in the H&S plan.

44. Housekeeping, Stacking, Storage and Clearance Zones

1. The Principal Contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site.
2. The H&S plan should include the method and frequency of housekeeping on site.
3. A H&S plan should outline how the principal contractor intent to take building rubble safely down from the Protea Flat roof during the construction at the facility.
4. Safe clearance zones should be established and managed at ground level.
5. All deliveries of building materials shall be controlled by the appointed person and no haphazard storage shall occur; amongst other, specific storage plans shall be in place for:
 - The safe storage of bulk imported materials and containers and the management of this area.
 - The safe storage of bricks, blocks and kerbs; no pallets shall be stacked on top of each other
 - The safe placement of reinforcing steel and roofing- ceiling- and cladding materials
 - The safe placement of scaffolding and temporary work materials as an example.

45. Waste

1. The Principal Contractor shall appoint the construction manager as the person responsible for site-wide control & removal of scrap, waste and debris.
2. Designated waste areas are to be identified and agreed with the facility managers at each facility.
3. No hazardous waste, combustible materials and containers shall accumulate on the construction site.
4. The Principal Contractor shall document a waste management method statement in the H&S Plan. Waste management must comply with the Environmental legislation.
5. All waste skips removed from site must be recorded and a proof of final deposit at a registered waste site (waste disposal certificate) must be on record in the H&S file.
6. Waste bins for domestic waste must:
 - a. Be placed at all eating areas
 - b. Have a lid,
 - c. Be emptied daily.
7. All biological requirement PPE and equipment used should be classified as hazardous waste.

46. Occupational Health

1. The H&S Plan shall include the management of:
 - a) The occupational hygiene surveys which are planned as a result of the baseline risk assessment if required.
 - b) The requirements for medical certificates of fitness for all employees working on the site for the principal contractor and contractors. All pre-placement medical surveillance records of employees who are or are required to be under medical surveillance; this record may be the latest periodical medical examination report.
2. Medical certificates of fitness issued by a registered occupational medicine practitioner are deemed valid.
3. The Principal Contractor and every contractor shall ensure that a Person-Job Specification is issued for each job title deployed on the construction site. A template, attached as Annexure C, may be used. The standard for fitness testing is determined by the risk exposure defined in the Person-Job specification. The principal contractor is to ensure correct completion of the Person-Job specification.
4. The principal contractor should consider the ergonomic risk factors and controls when planning their works activities.
5. The principal contractor should ensure the risk assessment takes into account the occupational hazard and risk from the work activities and exposures experienced on site.

6. The principal contractor should also take into consideration the HIV Aid exposures and therefore make provision to create HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following:

- 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 VCT and counselling.
- Inform workers of their rights with regards to HIV/AIDS in the workplace;
- Provide Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices.

HIV/AIDS PROGRAMME: SITE CHECKLIST

- Awareness campaign representative on site
- Formulate a yearly HIV/AIDS Programme
- Male condom dispensers, sufficient male condom available and is it placed in high trafficked areas.
- Female condom dispenser, sufficient female condoms available and is it in high trafficked area.
- All types of HIV related posters displayed in a high trafficked area and in a good condition.
- Have a workshop/toolbox talk attendance register, with the discussed topic, number of employees attended and the outcome of the workshop/ tool box talk.

47. Access, traffic management and camp site

1. All employees working at the construction sites shall access the site in a vehicle which have seats firmly secured and adequate for the number of employees to be carried; this means that strictly no personnel may be transported in the load body of an LDV or a truck and that all construction personnel must be brought to site in a bus, taxi or inside the cab of a vehicle.
2. No employee shall be transported together with goods or tools.
3. The Principal Contractor shall ensure that all employees and visitors are aware and comply with the site's safe speed restriction, defined by the principal contractor at the hand of the risk assessment.
4. All activities planned to occur in the campsite shall be risk assessed and planned; this includes risk controls for the parking of staff- and visitor's vehicles, parking of mobile plant and machinery, dedicated storage areas, planned and compliant stacking practices, traffic controls, including the safe separation of pedestrian (employee) transport from risk areas.
5. Traffic management on site is crucial considering the scope of works and the risk of public road interaction. Specific information required in the plan is as following:
 - Site layout, inclusive of the pipeline alignment
 - Identification of all intersections and crossings
 - Identifications of flag person on the map

- Identification of locations for temporary road signs
 - Control measures outlines for excavations works
 - Supervision measures stipulated as part of the plan
 - Safe provision should be made for motorist and pedestrians.
6. The principal contractor should ensure authorized laydown areas be used for material storage on site. Such laydown areas should not obstruct the operational activities of the hospital.

48. Biological Risks

1. The principal contractor should ensure the Biological Risks requirements as specified by the Government legal requirements are implemented on site. These Biological Risks requirements should form part of the principal contractors H&S plan.
2. The principal contractor has a duty to protect and should promote the safety and health of all employees. The principal contractor should have a system in place that identify hazards and develop a risk assessment with regards to the safety and health of workers arising from biological hazards.
3. Exposure to biological hazards can occur in any work activity involving contact with humans or human related products, animals or animal products waste, plants and food.
4. Working in healthcare and with communities have the following possible hazards and risks to consider:
 - a. Viral and bacterial infections, including but not limited to HIV, Hepatitis or Tuberculosis.
 - b. Diseases and accidents caused by contact with health care equipment
 - c. Direct contact with contaminated surfaces or persons.
 - d. Airborne transmissions of viral bacterial and fungal pathogens.

ANNEXURE A

CONTENTS AND NUMBERING SYSTEM FOR THE H&S PLAN

1. Index of the H&S Plan
2. Project scope of works
3. Scope & activities, machinery, plant, equipment, hazardous articles and selected contractors to be used and hazardous materials and articles used in the project
4. Health and Safety Resources and Budget
5. Construction manager: duty, responsibility, authority, document control and communication
6. Construction supervisor: duty, responsibility, authority, document control and communication
6. Safety officer: duty, responsibility, authority, document control, communication
7. Principal Contractor site organogram
8. Management of the baseline, issue-based risk-, risk review- and risk monitoring
9. H&S Induction, training and H&S competency management
10. General record keeping management
11. Contractor and Sub-contractor management
12. Site communication management
13. Fall protection plan and method statements for heights work
14. First aid, accident & incident and emergency management
15. Fire prevention and equipment management
16. Safety signage management
17. Access & on-site traffic and public H&S management
18. Hoarding and temporary fencing control and management
19. Excavation management
20. Temporary work management
21. Scaffolding management
22. Demolition management
23. Electrical management
24. Delivery, offloading, stacking, storage and housekeeping management
25. Hazardous chemical substances management
26. Construction plant and machinery management
27. Lifting Operations and Management
28. Concrete works and batching
29. Explosive actuating devices
30. Occupational hygiene, occupational health and fitness for work management
31. Employee facilities management
32. PPE management
33. Safety Inspections and Inspection Register management
34. Internal Audit management
35. Dust control management
36. Waste management
37. Radiation control
38. Biological Risks

ANNEXURE B

CONTENTS AND NUMBERING SYSTEM FOR THE H&S FILE

1. Index of the H&S File
2. Project information and project role players, client, agent, principal contractor
3. Principal Contractor Appointment Letter
4. 37.2 Agreement between Principal Contractor and the Client
5. Construction Work Permit
6. H&S Approvals
7. H&S Plan
8. Induction Training Program & Records
9. Baseline risk assessments
10. Issue Based Risk Assessments, Registers and DSTI records
11. Emergency Preparedness Plan
12. Demolition risk assessment & Method Statement
13. Fall Protection Plan
14. Traffic management plan
15. Waste management plan
16. Start-up and Updated Organisational charting
17. Project and OHS organogram
18. Signed letters of the appointed competent persons and evidence of competency
19. Occupational Health Management and Medical Certificates of fitness
20. Training and Competency Matrix and Training records
21. H&S Induction records for employees
22. Visitor Induction Records
23. Monthly project HSE statistics
24. Incident Register & Investigation reports & COIDA Accident
25. H&S Inspection & Maintenance Registers and records
26. PPE Issue Register and records
27. Internal Audits
28. Letters of approval of contractors and sub-contractors H&S Plans
29. Letters appointment of contractors and sub-contractors from the Principal Contractor
30. Signed Section 37(2) agreements with sub-contractor.
31. Principal contractor's contractor- and sub-contractor audits
32. Audits by Client Agent
33. Corrective / Preventive Action plans for client audits
34. Occupational hygiene records and references
35. COIDA Letter of Good Standing Principal Contractor
36. Updated Notification and proof of delivery (if applicable)
37. Material Safety Data Sheets
38. Record of Department of Labour visits
39. Biological Risks

Annexure C

Person job specification

The job specification must be completed and accompanied with the medical examination.

Job Designation									
Brief Job Description									
A: Physical Requirements				Y	N	B: Work Conditions		Y	N
Climbing	Stairs	Catwalks	Ladders			Outside work for complete shift			
Patrolling or walking all shift						Noise > 84 dB(A) for > 4 hours/day			
Working in awkward position						Trip, slip fall hazards			
Standing	Lifting	Bending				Hand Arm Vibration			
Binocular visual acuity min 6/9						Whole Body Vibration			
Depth perception						Fall risk			
Monocular visual acuity min 6/9						Paints, solvents, oils			
Normal visual field						Crystalline silica dust			
Normal hearing ability						Dust > 2.5mg/m ³ for > 4 hours/day			
Moderate physically heavy work						Operating amongst Moving machinery			
Heavy duty work						Operating Moving machinery			
Repetitive arm/hand movement						Crane –Man Lift operator			
Night Shift						Driver			
						Construction Plant Operator			
Other risks or physical demands									
C: PPE			Y	N			Y	N	
Hard hat					Disposable mask				Fall harness
Hearing protection					Full cartridge mask				Eye protection
Safety shoe/boot/gumboot					Heavy duty or chemical gloves				Face shield
* Any other Comments									



Annexure D

**Acknowledgement of the H&S Specification by Principal Contractor Construction Health & Safety Specification
Issued in terms of the Occupational Health and Safety Act, 1993 Construction Regulations, 2014**

I _____ representing Principal Contractor have satisfied myself with the content of this Construction Occupational Health and Safety Specification and shall ensure that the Principal Contractor, all Contractors and sub-Contractors and all employees on site comply with it.

Signature of Principal Contractor

Date

Signature of Agent

Date

This document must be signed and returned to the Pr. Construction Health and Safety Agent.

C5.2 ANNEXURE B: BASELINE HAZARD IDENTIFICATION AND RISK ASSESSMENT



BASELINE RISK ASSESSMENT:

**BASELINE RISK ASSESSMENT FOR THE
COMPLETION OF THE CATHLAB AND CSSD AT
THE LIVINGSTONE PEPH HOSPITAL COMPLEX**

CDC/73/26

Risk Assessment N^o

CDC-SBU-BRA-122-26

Classification: Public

12 August 2026



DOCUMENT INFORMATION SHEET

Title of Document : *Project Baseline Risk Assessment*

Type of Document : *Baseline Risk Assessment for the Completion of the CATHLAB and CSSD at the Livingstone PEPH Hospital Complex*

Document Number : *CDC-SBU-BRA-122-26*

Prepared by : *Xavier Redcliffe*

Typed by : *Xavier Redcliffe*

Business Unit : *Sustainability Business Unit – DoH Programme*

Prepared for : *Bidders*

Date of Issue : *12 August 2026.*

Copyright

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

DOCUMENT CONTROL SHEET

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

PROJECT NAME : *Completion of the CATHLAB and CSSD at the Livingstone PEPH Hospital Complex*

DOCUMENT TITLE : *Project Baseline Risk Assessment*

DOCUMENT No. : *CDC-SBU-BRA-122-26*

SIGNING OF THE ORIGINAL DOCUMENT

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

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 12 August 2026	Name: X. Redcliffe	Name: S. Gwavu	Name : X. Redcliffe
	Signature: 	Signature: 	Signature: 

Distribution:	CDC
----------------------	------------

REVISION CHART

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

Document Title	<i>Project Baseline Risk Assessment</i>		
Document Control Number	Revision	Issue Date	

<i>Revision Number</i>	<i>Alteration</i>	<i>Date</i>
1		
2		

Risk Profile:

The risk profile is identifying the key areas of risk exposure that the client is highlighting to be considered by the respective contractors as part of the construction project:

- Public safety risks
- Lack of sufficient resource allocation
- Safe traveling and traffic management
- Access control to construction site
- Asbestos work
- Known and unknown services exposure
- Exposure to moving equipment
- Demolition works
- Excavations
- Dust, noise and vibration exposure,
- Manual Handling & related ergonomic stressors
- Working at heights
- Scaffolding works
- Edge work on multiple storey building
- Temporary work
- Lifting and lowering operations
- Grinding and cutting operations

- Electrical works and exposures
- Mechanical works and exposures
- Handling and storage of hazardous chemicals substances
- Heat and Fire risk exposures
- Waste exposure and handling
- Exposure to pigeon faeces, droppings and dead pigeons
- Lack of signage
- Falling equipment and material from heights
- Safe walks ways
- Safe access
- Working at hospital facilities
- Commissioning requirement
- Biological hazard exposures

Note, this HIRA is a guide only and does not cover all risks. It must be read in conjunction with the Site Specific OHS Specification in the Contract document. The Contractor must supply a full risk assessment for all activities on site					Baseline risk					Residual risk				
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
1. SITE ESTABLISHMENT														
CR 24	Access and transport on and to site	Unsafe transportation of construction material and employees	Motor vehicle accident and fatalities	Vehicles and drivers to be licenced and road worthy. Strict adherence to road speeds to be implemented. Material and employees to be separately transported. Materials to be neatly stacked	3	3	3	27	Vehicles and drivers to be licenced and road worthy. Strict adherence to road speeds to be implemented. Material and employees to be separately transported.	3	2	2	12	Contractor. Construction Manager. CHSO

	Site camp erection & dismantling	Rigging – off loading- placement of containers and machinery Exposure to snakes in greenfield area	Falling objects - Sliding objects Cuts and lacerations – crush injuries Snake bites	Machines to have valid inspection and load tests, Chains, slings, wire ropes to have valid inspections ad load tests, Competent riggers to be appointed, PPE to be worn, Areas where rigging activities are taking place must be mad clear before the commencement of works.	3	3	3	27	Compliance to lifting and lowering legal requirements.	3	1	1	3	Contractor. Construction Manager. CHSO
	Unidentified Existing Services	Electrical	Contact with electrical cable overhead	Erect warning signs, Conduct training on electrical hazards	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	2	2	12	Contractor, Construction Manager, CHSO
			Contact with underground cable	Conduct survey prior to works to determine where underground services are located	3	3	3	27	Ensure staff are Experienced and competent to	3	2	2	12	

									conduct Inspections.					
			Use of equipment under HV cable	No work to be conducted with HV cable without permission and compliance with ESKOM requirements, Erect warning signs, Conduct training on electrical hazards	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	2	2	12	
		Water	Underground pipe being damaged	Conduct survey prior to works to determine where underground services are located, Emergency response procedure to be developed for the damaging of services	2	2	2	8	Ensure staff are Experienced and competent to conduct Inspections.	2	2	1	4	Contractor. Construction Manager. CHSO

		Gas cutting and/or installation	No Adequate ventilation, Gas cylinders incorrectly stored, Gas leaks.	Ensure staff are competent and experienced to conduct Inspections, Ensure training is conducted for use of equipment, Ensure gas cylinders are adequately stored, Make sure pipes, storage areas and vehicles carrying gas are suitably marked and signed, Ensure there is adequate ventilation.	2	3	2	12	Method statement to be conducted on gas installation, SWP to be conducted on gas installation.	1	1	1	1	Contractor, Construction Manager, CHSO
	Storage of Materials	Storage of Construction Materials	Injury / Property damage / Theft / Security Issues	Demarcated areas to be allocated to the contractor. Materials to be stored in demarcated areas. Security to be placed on site camp gates to remain	3	3	3	27	Ensure staff are Experienced and competent to conduct Inspections.	3	1	1	3	Contractor, Construction Manager, CHSO

				locked to restrict access to site.										
REF where appropriate	Operation/Process or Condition.	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
2. ENVIRONMENTAL														

Environmental and facilities regs	Weather	Working in wet condition, Working extreme hot conditions, Working in windy conditions. Weather is a factor to be considered when working at height of 10 storey building.	Site conditions should be safe	Work stoppage in wet rainy conditions. Contractor to consider water breaks and Wind meter to be available and measured daily on top of the Protea Flat roof.	3	3	2	18	Use of weather stations to monitor temperature, Work to be assessed should discomfort and effective control measures should be implemented. Adequate water intake.	2	3	2	12	Contractor, Construction Manager, CHSO
	Inadequate employees' facilities and poor site hygiene	Insufficient toilets, no sheltered eating areas and storage areas, lack of cleaning.	Hygiene risk, Infections, irritative, diseases	Adequate facilities such as toilets, eating areas and storage areas to be provided that adheres to Legal requirements. Housekeeping to be adequately maintained in toilets, eating areas and storage areas	3	3	2	18	Legal requirements to be adhered to. Risk assessment Training and awareness Risk based legislative requirements to be implemented. Required PPE and proper hygiene must be practiced	2	3	2	12	Contractor, Construction Manager, CHSO

									by all entering the construction area.					
	Office facilities	Working in cramped unventilated or poor lighting conditions. Poor Hygiene	Health issues	Office set-up to allow for safe access and movement Adequate lighting to be installed in offices, Offices to be well ventilated, Housekeeping to be maintained in office facilities	2	2	2	8	Ensure office cleaning and sanitizing done regularly	2	1	1	2	Contractor, Construction Manager, CHSO
	General Waste Management	Use of temporary/chemical toilets	Health Issues	Assign one chemical toilet per 15 worker's (male and female separated) Chemical toilets must be emptied at least once a week	2	2	3	12	No Formaldehyde in chemicals. Serviced and cleaned at least once weekly by competent service providers.	1	2	1	2	Contractor, Construction Manager, CHSO

		Waste disposal	Health and Environmental issues	All waste must be properly disposed at certified waste landfill sites.	2	2	3	12	No burning of cement bags or other refuse on site. Site to be kept tidy. Removal of all waste at regular intervals by competent service providers.	2	1	1	2	Contractor, Construction Manager, CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
3. WORKING AT HEIGHTS														

CR 10	Working at Heights	Scaffolding not properly erected	Scaffold collapse Falling objects Fall from heights	Only competent persons should develop designs of scaffolding. Only competent persons should erect scaffolding. Fall protection Plan by registered fall planner Drop/clearance zone to be developed around scaffolding works Use of toe boards, proper decking, catch nets	3	3	3	27	Method statements to be done according to the Design drawings that includes load bearing which is approved by competent person	3	2	2	12	Contractor, Scaffold Erector, Scaffold inspector
-------	--------------------	----------------------------------	---	---	---	---	---	----	--	---	---	---	----	--

		Scaffold works	Scaffold collapse Falling objects Fall from heights	Only competent persons should develop designs of scaffolding, Only competent persons should erect scaffolding. Fall protection Plan by registered fall planner Drop/clearance zone to be developed around scaffolding works Use of toe boards, proper decking, catch nets	3	3	3	27	Method statements to be done according to the Design drawings that includes load bearing which is approved by competent person	3	2	2	12	Contractor, Scaffold Erector, Scaffold inspector
		Use of ladders	Falling objects Fall from heights	Fall prevention plan to be developed, Ladders conform to General Safety regulation 13a	2	3	3	18	Inspection checklists to be conducted for ladders, Asset numbers to be allocated per ladder. Method statement	2	2	2	8	Contractor, Scaffold Erector, Scaffold inspector

									to be developed for ladder work					
		Dangerous work and Unsafe tasks	Work with and amongst construction machinery Working inside exactions, Height works: ladder, scaffold, structural steel structures and roofs. Access to heights Work on structural steel erection Work in wind risk, equipment installation	Fall protection Plan by registered fall planner, Inspections to be conducted before the commencement of any works	2	3	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Scaffold Erector, Scaffold inspector
		Edge works	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights. No fall prevention	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Safe access routes to be implemented	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Plant manager. CHSO

				for the public, Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage, Fall prevention plan to be developed and implemented.										
		Façade Repair	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights.	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Safe access routes to be implemented for the public,	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls Training and awareness	2	2	2	8	Contractor, Plant manager. CHSO

				Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage										
		Roof and ceiling works	Ergonomic hazards Fall risks, falling objects risks Work from installed structures Work from temporary structures Working on slippery/wet surfaces Trip and fall from existing cables and materials on the roof	Method statement for roof replacement and cleaning of the roof to be conducted Equipment to be inspected before use. Training and awareness to be conducted. Work areas to be assessed before the commencement of any activities	3	3	3	27	Fall protection Plan by registered fall planner, Inspections to be conducted before the commencement of any works	3	2	2	12	Contractor, Plant manager. CHSO

Environmental and facilities regs	Weather	Working in wet/slippery conditions, extreme hot conditions, High Wind speeds	Slips and falls, Possible hypo- or hyper- thermalon efficiency of workers.	Work stoppage in rain or following rain that would affect the works. Cold weather protective clothing may become necessary. Hot weather may require work stoppage. Adequate supply of drinking water.	3	3	2	18	Use of weather stations to monitor temperature, All height works to stop when wind speeds are above 40km/h, Limited work to commence if winds speeds are above 20km/h . Adequate water intake. Sheltered areas for rest and eating.	2	3	2	12	Contractor, Construction Manager, CHSO
4. PUBLIC SAFETY														
	Public Safety	Public interaction working at operational hospital	Obstruction from construction material, lack of signage and hoarding,	Laydown areas for materials to be determined and pre-approved, Signage and hoarding to be fitted and displayed.	3	3	3	27	Safe access routes to be implemented for the public/residents, Hoarding to be installed to separate public from construction activities. Safe	1	3	3	9	Contractor

									allocation for residents/staff vehicles to park.					
		Working a heights / Edge work	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No safe access provided for the public, No hoarding installed and objects falling from heights.	Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, Hoarding to be installed to separate public from construction activities.	3	2	3	18	Safe access routes to be implemented for the public, Safe allocation for residents/staff vehicles to park.	2	2	2	8	Contractor, Plant manager. CHSO
5. LOCK OUT SYSTEMS														

	Lock Out Systems	Perform lockout/tagout	Performing Unauthorized lockout/tagout procedure / Unauthorized personal conducting lockout/tagout	Only competent and authorised employees are to perform this task, Lockout/tagout to only be conducted when authorized.	2	1	3	6	SWP to be developed, communicated and implemented on site. All relevant PPE to be worn. Demarcate working area. Plant item to cool down completely before use	1	1	2	2	Contractor, Construction Manager, CHSO, Electrical Supervisor
		Remove lockout/tagout	Performing Unauthorized lockout/tagout procedure / Unauthorized personal conducting lockout/tagout	Only competent and authorised employees are to perform this task, Lockout/tagout to only be conducted when authorized.	2	1	3	6	SWP to be developed, communicated and implemented on site. Lockout/tagout to only be conducted when authorized. All relevant PPE to be worn. Demarcate working area. Plant item to cool	1	1	2	2	Contractor, Construction Manager, CHSO, Electrical Supervisor

									down completely before use					
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability

6. EXPOSURE TO DUST, NOISE, VIBRATION

	Exposure to Dust	If severe lack of clear vision; Breathing problems. When activities are in process that create dust such as excavating, cement work etc.	Loss of Lung Function	Dust prevention, Relevant PPE to be worn	2	3	3	18	Specification to include dust palliative requirements.	2	2	2	8	Contractor, Plant manager. CHSO
		Exposure to dust	Interruption to existing hospital and residents' activities	Dust prevention plan/procedure should be developed, Dust suppression should be implemented	2	2	2	8	Extra special care and planning and communication between the contractor and hospital staff were working in close vicinity to ICU and operating theatres.	3	2	2	12	Contractor, Plant manager. CHSO
NIHL 10	Exposure to Noise	Over 85 Db for long period: When activities are in process that create noise from: Plant, machinery and other electrical equipment and tools	Hearing Loss	Noise zones to be established, All relevant signage to be displayed	2	3	3	18	Specification to require establishment of noise zones. Communication with existing facilities to ensure minimum noise	2	2	2	8	Contractor, Plant manager. CHSO

									during office hours. IHL regulations to be followed at all times					
		Exposure to noise	Interruption to existing hospital and residents' activities	Control should be taken to ensure that exposure to Hospital, Residents and General public is minimized. Ensure that Planning and communication between the contractor and hospital staff and residents. A solid hoarding structure to be above implemented.	2	2	2	8	Specification to require establishment of noise zones. Communication with existing facilities to ensure minimum noise during office hours. NIHL regulations to be followed at all times	2	2	2	8	Contractor, Plant manager. CHSO

	Exposure to Vibration	Mobile plant operations, using vibrating electrical or mechanical equipment	Whole body Vibration back and muscular strain	SWP to be developed, communicated and implemented for use of mobile plant, vibrating electrical and mechanical equipment. Job rotation to be implemented	3	2	2	12	Training and awareness to be conducted. Correct PPE to be worn Checklist to be conducted for all equipment	2	1	1	2	Contractor, Plant manager. CHSO
7. ELECTRICAL TOOLS														
	Use of small electrical tools	Contact with electricity	Electric shock	Tools to be inspection prior to use, Ensure all connections secure, Cables to be inspected to ensure no breaks in cable. Ensure correct routing of cables on site	3	2	2	12	Certificate of Compliance for electrical supply	3	2	1	6	Contractor, Construction Manager, CHSO, Electrical Supervisor

8. ACCESS TO SITE														
	Public access and safety	Persons in dangerous areas. Personnel gaining access to construction area. The public gaining access to the construction site	Injury to person's/employees/personnel	Strict access control to be implemented. Trained security staff on duty. Induction for all visitors. Hoarding to be installed around works, 24 hour security to be implemented, All mandatory and risk based signage to be displayed i.e. construction work in progress, workmen overhead.	3	2	2	12	Separate general public from construction site. Extra care to be taken to ensure the public and personnel do not gain access to the construction activities.	3	1	1	3	Contractor, Construction Manager, CHSO
	Temporary Access	Public and resident interaction with construction activities	Injuries to person, property damage.	Temporary access for the contractor to be established and temporary access for residents to be established these access points are to be separated, All relevant Signage	3	2	2	12	All risk based and warning signage to be displayed, Delineators and flagman to be placed as guidance for vehicles.	2	1	1	3	Contractor, Construction Manager, CHSO, Security

				for temporary access must be clearly displayed, Residents must be informed of temporary access points.										
	Access control	Personnel, Public and employees may gain access to site	Fall into excavation, injury from plant, tools or at workplace/ construction activities.	Access control to be in place, hoardings erected to separate site from public. Extra hoarding to be in place to ensure the public and personnel are kept out of the construction site.	3	2	2	12	Strict access control, gates locked or manned at all times. Trained security staff on duty. Induction for all visitors. Extra hoarding as well as 24 hour security	3	1	1	3	Contractor, Construction Manager, CHSO, Security
	Use of Entry and Exit points	Access/ Inadequate Access/ Single lane Entry and Exit point	Injury to person's / employees /personnel/ consultants/patients, Road accident, Insufficient traffic flow	Separate general public from early works / construction site. Extra care to be taken to ensure the public and personnel do not gain access to the construction	3	1	3	9	Strict access control, gates locked or manned at all times. Trained security staff on duty. Induction for all visitors. Extra	2	1	1	2	Contractor, Construction Manager, CHSO, Security

				activities as well as early works. Trained flagman to be stationed at strategic points and all mandatory signage and road signage to be displayed.					hoarding as well as 24 hour security					
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
9. CONCRETE WORK														

CR 20	Outsourced supply	Delivery by truck	Person struck by truck	Emergency response plan to be developed, Competent persons to supervise the activity, Truck drivers to have Reverse warning Driver training	3	2	2	12	Training and awareness to be conducted for workers	3	1	2	6	Contractor. Batch plant and Concrete Supervisor, CHSO
			Person struck by concrete poured into shuttering	Ensure the Area is cleared of all persons besides essential workers, Competent persons to supervise the activity, Area to be cordoned off	2	2	2	8	Training and awareness to be conducted for workers	2	1	2	4	
	Hand mixing	Use of small tools	Contact with cement	PPE to be worn, Care in opening cement bags	2	2	2	8	Training and awareness to be conducted for workers	2	1	2	4	Contractor. Batch plant and Concrete Supervisor, CHSO
			Inhale cement dust	Dusk masks to be worn, Care in opening cement bags	2	2	2	8	Training and awareness to be conducted for workers	2	1	2	4	

			Ergonomic risks	Rotate work	2	3	3	18	Training and awareness to be conducted for workers	2	3	1	6	
CR20	Use of concrete vibrator	Injury to persons	Noise, vibration, contact with vibrating head, contact with wet concrete	Only competent persons to operate machine, Operator training, PPE to be issued and worn, Job rotation to be implemented	2	2	3	12	Use of equipment must be in good condition Training and awareness to be conducted for workers	2	2	1	4	Contractor. Concrete Supervisor, CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
10. BRICK WORK														

	Delivery by truck	Struck by truck	Injury to persons	Emergency response plan to be developed, Competent persons to supervise the activity, Truck drivers to have Reverse warning Driver training	3	3	3	27	Only competent drivers to operate truck, Driver to have valid licence, Inspections to be conducted on trucks	3	2	2	12	Contractor, Building Supervisor, CHSO
	Moving bricks	Use of wheelbarrow	Injury to person's ergonomic risks	Workers to be trained. Job rotation	2	2	3	12	Inspections to be conducted. Equipment used must be in good condition	2	2	1	4	Contractor, Building Supervisor, CHSO
		Use of Brick lift	Injury to persons	Load test to be conducted on brick lift, Only competent persons to operate brick lift, Training of workers in use of equipment	3	2	2	12	Inspections to be conducted. Equipment used must be in good condition	3	2	1	6	Contractor, Building Supervisor, CHSO

	Use of support work	Collapse of support work	Injury to persons	Support work to be conducted by a competent person, Support work to be designed by a competent person, Method statements to be conducted for support work. Loads to be calculated by competent person,	3	2	2	12	Inspections to be conducted. Equipment used must be in good condition.	3	2	1	6	Contractor, Building Supervisor, CHSO
	Use of access scaffolding and Ladders	Working with ladders and low scaffolds	Falls, slips	Fall protection plan to be developed. Ladders to GSR13A to be adhered to Workers to be trained on GSR13A and Access scaffolding	3	2	2	12	Competent person to supervise activities, Equipment use must be in good condition	3	1	2	6	Contractor, Building Supervisor,, Scaffolding Inspector CHSO
11. PAINTING														
GSR 13A	Painting	Working with ladders and low scaffolds	Falls, slips	Fall protection plan to be developed Contractor to adhere to Ladders GSR13A	3	2	2	12	Training, proper supervision. Ladder inspection	3	1	2	6	Contractor, Construction Manager, Ladder

				Workers to be trained on GSR13A											Inspector, CHSO
		Ingestion of Paint	Gastric irritation, nausea	Emergency response plan to be developed SDS to be readily available in the H&S File	2	2	2	8	Toolbox talks, Supervision over activities	1	2	2	4		Contractor, Painting Supervisor, CHSO
		Cleaning Brushes	Use of thinners, benzene, possible carcinogens; highly flammable	SDS to be readily available in the H&S File PPE to be worn Dissolve paint with soapy water Keep away from open flames	2	2	2	8	Toolbox talks, Supervision over activities	1	2	2	4		Contractor, Painting Supervisor, CHSO

REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
12. ELECTRICAL INSTALLATION														
EIR	Electrical Contractor	Unregistered, incompetent contractor	Poor work, cost overruns, no municipal connection	Ensure appointment of registered, competent contractor/competent person	3	2	3	18	Project specific H&S Specification and HIRA in tender Document	1	2	3	6	Contractor, Construction Manager, CHSO, Electrical Supervisor
		Electricity Control	Work in the dark, Slip and Fall due to poor lighting.	Adequate lighting to be placed in work areas where existing lighting is insufficient.	2	3	3	18	Temporary lighting must be utilized when applicable	1	2	3	6	Contractor, Construction Manager, CHSO, Electrical Supervisor

13. CARPENTRY														
	Carpentry	Use of Tile Cutter and grinder	Injury to persons / ergonomic risk	Awareness Training to be conducted with workers, job rotation to be implemented, training workers on the use of equipment	2	2	2	8	Ensure Correct PPE, toolbox talks proper supervision	2	1	2	4	Contractor / Supervisor / CHSO
REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability

14. HAZARDOUS CHEMICALS

HCS Regulations	Use/supply of hazardous Chemicals	Improper use/storage of hazardous Chemicals	Fire, explosion poisoning of persons	HCS Controller to be appointed, Supply appropriate materials safety data information, SWP on use of HCS to be developed and communicated with workers	3	2	3	18	Component person appointed for stacking and storage. Proper stacking and storage. Provision of fire extinguishers. Emergency plan to be developed.	3	1	2	6	Contractor, Construction Manager, CHSO HCS supervisor, SMME Contractor(if employed)
	Plastering	Cement Mortar	Physical Contact with cement	PPE to be issued and worn SDS to be readily available in the H&S File Training to be provided for workers on use of cement mortar	3	3	2	18	Dust control, PPE (eye and respiratory) Use of distributor when stabilizing road. Rotation of workers	2	3	1	6	
	Tiling	Tile grouts and Adhesives	Contact with materials	PPE to be issued and worn SDS to be readily available in the H&S File	2	2	2	8	Proper PPE. Worker training	2	1	2	4	

				Training to be provided for workers on use of grouts and Adhesives.										
	Carpentry	Wood glue & Varnish	Health Risk to Workers	Ensure that there is adequate ventilation PPE to be issued and worn SDS to be readily available in the H&S File	2	2	2	8	Training to be provided for workers.	2	1	2	4	
15. ERGONOMICS														
	Whole Body and hand vibration	Mobile plant operations, using vibrating electrical or mechanical equipment	Whole body Vibration back and muscular strain	All equipment to be pre inspected before use, checklist to be kept on file. Job rotation of workers. Training and awareness to be conducted on use of equipment. Correct PPE to be worn	3	2	3	18	Risk assessment to be conducted Supervision of works Engineering controls	3	2	2	12	Contractor, Construction Manager, CHSO

	Manual lifting and repeated movement	Ergonomic stress	Back and other muscular injury or disease	Training and awareness talk to be conducted on manual lifting and repeated movement Job rotation of workers	2	2	2	8	Risk assessment to be conducted Supervision of works Engineering controls	2	1	2	4	Contractor, Construction Manager, CHSO
	Manual work	Use of hands – strain on muscles and back	Lacerations, crush injury, back injury, muscle injury	Training and awareness talk to be conducted on manual work Job rotation of workers	2	2	2	8	Risk assessment to be conducted Supervision of works Engineering controls	2	1	2	4	Contractor, Construction Manager, CHSO
	Plastering, Tiling, Carpentry	Ergonomic risks	Working in confined areas, bending,	Training and awareness talk to be conducted on Plastering, Tiling, Carpentry Job rotation of workers	2	2	2	8	Proper supervision, competent trained workers	2	1	2	4	Contractor, Construction Manager, CHSO

16. EXCAVATIONS															
CR13	Excavations	Plant & Manual	Injury or death to employees, Public and personnel. Damage to the existing fauna and flora. Excavation collapse	Excavations must be adequately barricaded Shoring must be installed as required. Signage to be clearly displayed at excavations Mobile plant utilized must be in good condition. Competent Excavation supervisor must be appointed in writing.	3	2	3	18	Supervision of excavations to be implemented on site. Toolbox talks to workers on excavation safety to be conducted	3	2	2	12	Contractor, Construction Manager, CHSO, Excavation Supervisor	
17. TEMPORARY WORKS															
	Temporary works	Falling off Collapse Unsafe temporary works	Serious injuries- multiple persons- fatal	Competent person must be appointed for the design of temporary works. Only Competent workers should erect/install temporary works	3	2	3	18	Legislative requirements for temporary works to be implemented. Safety harnesses must be worn. Training and	3	2	2	12	Contractor, Construction Manager, CHSO, Excavation Supervisor	

				Fall prevention plan must be developed Temporary works to be inspected and approved before commencement of works					awareness to be conducted All relevant Signage to be clearly displayed					
18. LIFTING EQUIPMENT														
CR22	Lifting Equipment	Uneven ground, loose soft soil, overhead power lines or other obstructions	Machine could tilt or become bogged down and causing a dangerous situation, resulting in injury/property damage/Death Overhead powerlines could be hit and broken	Correct inspection and evaluation of the working area. Ensure working area is clean and that the machine will be stable Mobile plant used must be in good condition Competent workers/flagman to be placed to give operators hand signals and directions	3	3	3	27	Correct inspection and evaluation of the working area Ensure working area is clean and that the machine will be stable.	3	2	2	12	Contractor, Construction Manager, CHSO, Lifting Operator, Lifting Inspector

		Checking out the machine to ensure that all is in good working order	Controls not functioning correctly, oil leaks. Machine failure causing damage and injury to employees	Ensure only competent persons operate machines. Ensure pre-start up inspections are conducted on machines. All operators & employees to be inducted.	3	2	3	18	Daily checklists and Toolbox Talks must be done	3	2	2	12	
		Correct positioning of equipment ensuring it is level before carrying out the lift	Machine could tip over in one particular direction. Property/equipment damage/employee injury	Ensure only competent persons operate machines. Ensure pre-start up inspections are conducted on machines and that all safety mechanisms are in working condition. Ensure that the machine is correctly positioned and will not be overextended in any particular	3	2	3	18	Ensure competent operators to position machine correctly to ensure maximum usage are any one lift, Method statements to be developed, Risk Assessments to be conducted, Safe Work Procedures and Toolbox Talks to be conducted	3	2	2	12	

				direction of operation. Barricade the area to prevent unauthorized entry.										
		Use of transport platforms and material hoists	Safe load limit not adhered too, Lifting machine not inspected before use, Chains, slings, wire ropes and hooks not tested and inspected, Works conducted beneath loads, No clearance zones implemented while lifting.	Ensure all lifting equipment is load tested and inspected by a competent person, ensuring all Chains, slings, wire ropes and hooks are load tested and inspected by a competent person, Ensure clearance zones are implemented when lifting material.	3	3	3	27	Ensure only competent operators conduct lifting operations / Ensure prestart up checklists are conducted on machinery, parts and area before lifting operations / Ensure the area is clear of people and loose lying materials/ Method statements/ Risk Assessments/Safe	2	2	2	12	

									Work Procedures Toolbox Talks					
19. TRAFFIC ACCOMMODATION														
	Traffic Accommodation	Traffic accommodation will be required throughout the project.	Collision between plant or transport. Collision between private and/or contractor vehicles. Worker struck by vehicle. Incompetant Flag persons appointed	Traffic management plan to be developed, Appointment of Traffic Safety officer, Demarcation to ensure public walkways, public roads, lane closures are identified, Stop/go closures to be adequately set up, All risk based, warning , road traffic and mandatory signage must be clearly displayed at	3	3	3	27	Method statements and risk assessments to be conducted for traffic accommodation. Penalties to be issued for non- compliances. Flag persons to have bright visible flags. Nighttime closures to be properly lit.	2	3	3	18	Contractor, Construction Manager, CHSO / TSO

				every section of works for increased visibility, Competent Flagman to be appointed and placed on site in strategic positions Spotter/banksman to be appointed										
20. BARRICADING / HOARDING														
	Barricading / Hoarding	Barricading / Demarcating Hoarding	Inadequate Barricading / Demarcating Hoarding . Interaction with existing hospital activities / Interaction with residents' activities / personal and general public /	Ensure that Barricading / Demarcating Hoarding is correctly installed and maintained, Ensure that Barricading / Demarcating Hoarding in regularly inspected, Ensure that Barricading / Demarcating	3	3	3	27	Extra special care and planning and communication between the contractor and hospital/Protea flats. A solid hoarding structure to be above ceiling height to be considered. The contractor is to	3	2	2	12	Contractor, Construction Manager, CHSO

				Hoarding is installed around all construction activities that effect hospital activities, staff, patients, residents and the general public. Control should be taken to ensure that construction activities is at all times being separated from day to day hospital activities, staff, patients, residents, general public as well as hospital storage facilities to minimize exposure.					ensure to price correctly for barricading and hoarding to ensure sufficient barricading around each construction area.						

REF where appropriate	Operation	Hazard	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Accountability
21. WASTE MANAGEMENT														
	Removal of Waste	Waste Management	Daily waste from contractor cross contaminated with hospital waste/Protea flats waste. Waste incorrectly disposed	Contractor is to ensure that they have separate controlled waste areas to ensure no cross contamination with the existing hospital/Protea flats waste management systems. Ensure that waste is disposed of at an approved landfill site.	1	2	1	2	Waste manifestos is too kept in the H&S File	1	1	1	1	Contractor, Construction Manager, CHSO

22. SECURITY														
	Site Security	Security	Theft	Contractors and professionals doing construction activities should have own security on site. Contractors to ensure that materials and items of value are stored correctly as this can cause a security risk for the existing hospital and Protea flats.	1	1	2	2	Contractor to have separate controlled waste areas to ensure no cross contamination with the existing hospital waste management systems	1	1	1	1	Contractor, Construction Manager, CHSO
23. DEMOLISHING														

CR14	Demolishing	Breakdown of structures	Removal of existing staircase of Protea flats, Removal of existing emergency fire escape, Removal and break of brick wall, steel panel wall and concrete wall from top to bottom. Removal of concrete fence, palisade fence, chain-link and wire fence .Injury to all body parts can occur, Property damage can occur, Close proximity to public roads	Ensure to break structure from top to bottom. Regular inspection and evaluation of the working area prior to work Areas where demolition work is conducted must be cordoned off, with all mandatory and warning signage visibly displayed.	3	3	3	27	Employees to be trained and regular toolbox talks to be conducted.	3	2	2	12	Contractor, Construction Manager, CHSO, Demolition Supervisor
		Removal of staircase at Protea flats	Staircase collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Work area to be cordoned off, Drop/Clearance zones to be established, all mandatory and warning signage to be displayed.	3	3	3	27	Method statement to be developed for the removal of staircase. SWP to be developed for the removal of staircase.	2	2	3	12	

		Dust	Inhaling of dust causing sinus	Dust suppression to be implemented on site. Correct PPE to be issue and worn e.g. Dust Masks. Communication with the hospital/residents of Protea flats prior to the commencement of works.	3	2	3	18	Daily checklists and Toolbox Talk to be conducted. All employees to be inducted	3	2	2	12	
		Working Area	Loose bricks laying around, Workers can fall over bricks - Injuries to all body part can occur	Ensure Housekeeping controller is appointed Ensure proper housekeeping is maintained at all times. Ensure work areas to be kept clear of loose materials	3	2	3	18	Ensure competent operators to operate machines, Method statements, Risk Assessments, Safe Work Procedures and Toolbox Talks to be conducted	3	2	2	12	

24. MOBILE PLANT OPERATIONS															
CR23	Pre -Start Up	No daily checklist done, Malfunctioning of plant, Incompetent operator	Work stoppage / Property damage	A startup/daily checklist must be done daily before work is to start, Plant to be serviced and repaired by a competent service provider/person, Only competent and appointed operators are allowed to inspect/operate plant, to ensure inspections are done correctly and defaults are identified Supervisor must supervise the operator and ensure that controls are being followed	3	2	1	6	Mobile plant used must be in good condition	2	1	1	2	Contractor, Construction Manager, CHSO, Construction supervisor.	

	Use of mobile plant	Driving into other plant / Driving into employee/s / Incompetent operator / Driving into excavation / Damage to engine, pipes and parts / Using Mobile plant that's not in operating condition operating	Fatalities / Injuries / Property damage	Operator to remain within the speed limit. A spotter/ banks man must be present to assist, to prevent the accidental bumping of employees, plant, members of the public and property. Only competent and appointed operators will be allowed to operate plant All mandatory and warning signage must be clearly displayed. A startup/daily checklist must be done daily before work is to start, Plant to be serviced and repaired by a competent service provider/person and	3	1	3	9	Only competent and appointed operators are allowed to inspect/operate plant, to ensure inspections are done correctly and defaults are identified Supervisor must supervise the operator and ensure that controls are being followed	2	1	2	4	Contractor, Construction Manager, CHSO, Construction supervisor.
--	---------------------	--	---	---	---	---	---	---	--	---	---	---	---	--

				mobile plant used on site must be in good condition.										
25. WATERPROOFING														
	Installation of waterproofing	Chemical exposure, Fire, Fumes.	Inhalation of fumes, Burns, Explosion.	Only competent workers to conduct waterproofing works, SDS for chemicals to be readily available on site. Method statement to be conducted for waterproofing work, Develop emergency response procedures. PPE to be issued and worn	3	1	2	6	Risk assessment to be conducted Supervision of activity Equipment must be in good condition Pre inspection of equipment before use	2	1	1	2	Contractor, Construction Manager, CHSO, Construction supervisor.
26. DANGEROUS WORKS														

	Installation of staircase on high rise building	Staircase collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Residents of Protea flats to be informed prior to the commencement of works, Work area to be cordoned off, Drop/Clearance zones to be established, All risk based, mandatory and warning signage to be displayed.	3	3	3	27	Emergency response procedure to be develop. Method statement to be developed for the removal of staircase. SWP to be developed for the removal of staircase.	2	2	3	12	Contractor, Construction Manager, CHSO, Construction supervisor.
	Removal, Installation and repair of handrails on the roof	No Drop/Clearance Zone implemented on site, Lack of signage displayed on site, No hoarding installed and objects falling from heights. No fall prevention	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling,	3	2	3	18	Emergency response procedure to be develop. Method statement to be developed for the removal, installation and repair. SWP to be	2	2	2	8	Contractor, Plant manager. CHSO

				Safe access routes to be implemented for the public, Hoarding to be installed to separate public from construction activities and all risk based signage to be displayed i.e. Construction work in progress, Workmen overhead signage					developed for the removal of staircase.					
	Access panel leading to lift lobby at Protea flats to be repaired	Existing cables, satellite, antenna, wire fence and materials in the area, Falling objects, fall from heights, No fall prevention, Lack of signage displayed,	Fatalities / Injuries / Property damage / Trip and fall	Method statement to be developed for repair of access panel Area to be inspected for trip and fall hazards prior to the commencement of works, Fall prevention plan to be developed,	2	3	3	27	SWP to be developed for the repair of the access panel. Emergency response procedure to be develop.	1	2	3	6	Contractor, Construction Manager, CHSO, Construction supervisor.

				Safe Drop/Clearance zones to be implemented for height/edge works, Mesh Netting to be installed for edge work to prevent objects from falling, All mandatory signage and warning signage must be displayed										
	Installation of Emergency Fire route and Temporary Emergency Fire route	Emergency fire route collapsing, no clearance zone established, Area not cordoned off, Residents/staff not informed in advance.	Fatalities / Injuries / Property damage	Fall prevention plan to be developed, Method statement to be developed for installation of emergency fire route. Work area to be cordoned off, Drop/Clearance zones to be established, all risk based signage to be displayed, Residents	3	3	3	27	SWP to be developed for the installation of the emergency fire route. Emergency response procedure to be develop.	2	2	2	8	Contractor, Construction Manager, CHSO, Construction supervisor.

				of Protea flats to be informed prior to the commencement of works.										
	Hydro blasting	High pressure water, chemical exposure, Moving machine parts,	Injuries / Property damage	Only competent workers to conduct hydro blasting works. Pre inspection to be conducted on equipment, Equipment used must be in good condition, SDS to be readily available Correct PPE to be issued and worn	3	3	3	27	Method statement to be developed for the removal of shotblasting. SWP to be developed for the removal of hydro blasting.	2	2	2	8	Contractor, Construction Manager, CHSO, Construction supervisor.

27. FENCING														
	Installation of Temporary Fence(where applicable)	Pedestrian movement, Excavations, Underground services, Lifting heavy material.	Injury, Property damage can occur	Establish what services are in the area, All work area must be barricaded with mandatory signs and warning signs displayed, SWP to be developed and communicated for lifting of heavy material, Excavation supervisor to be appointed and conduct inspection on excavations	3	3	3	27	Regular inspection and evaluation of the working area prior to work. Employees to be trained and regular toolbox talks to be conducted.	3	2	2	12	Contractor, Construction Manager, CHSO, Construction supervisor.

28. BIOLOGICAL RISK

HBA Regulations		Epidemic, Pandemic Control and Exposure to Pigeon faeces and dead pigeons	Contact with bodily fluids / airborne/bloodborne pathogens/ infectious diseases as well as needlestick injuries and allergens resulting in allergic reaction / illness / Contact with pigeon faeces, droppings and dead pigeons	Control should be taken to ensure that construction activities is at all times being separated from day to day activities / staff / patients / general public. All workers entering the construction site must undergo training on the identification and handling of biological hazards prior to commencing work Up to date immunizations to protect workers from preventable infections, Vaccinations may be required to ensure	3	2	3	18	Workers training on dangers of Hazardous Biological Agents, Experienced supervision to oversee works. Method statements, Risk Assessments and Safe work procedures to be developed and communicated to workers on site. Relevant signage to be in place at all times.	3	1	2	6	Contractor, Construction Manager, CHSO, Hospital Infection Control.
-----------------	--	---	---	---	---	---	---	----	---	---	---	---	---	---

				infection control for workers. Correct PPE is to be worn at all times, New PPE to be issued regularly and PPE to be disposed of as hazardous waste. Only competent persons should dispose of dead pigeons, Ensure that there is no direct contact with pigeon droppings.										

Acknowledgement of the Baseline Risk Assessment by the Principal Contractor Construction Health & Safety Specification Issued in terms of the Occupational Health and Safety Act, 1993 Construction Regulations, 2014

Acknowledgement:

I, _____ representing _____ Design and Build Contractor have satisfied myself with the content of the Baseline Risk Assessment (BRA) and shall ensure that the personnel and other people visiting site comply with all relevant obligations in respect thereof.

Signature of Design and Build Contractor

Date

5.3 ANNEXURE C: PROJECT ENVIRONMENTAL SPECIFICATIONS



SPECIFICATION:

**PROJECT ENVIRONMENTAL
SPECIFICATION FOR THE
COMPLETION OF THE CATHLAB AND
CSSD AT THE LIVINGSTONE PEPH
HOSPITAL COMPLEX**

CDC/73/26

Specification N^o

CDC-SBU-SPC-212-26

Classification: Public

11 August 2026



DOCUMENT INFORMATION SHEET

Title of Document : *Project Environmental Specification*
Type of Document : *Project Environmental Specification for the Completion of the CATHLAB and CSSD at the Livingstone PEPH Hospital Complex*
Document Number : *CDC-SBU-SPC-212-26*
Prepared by : *Xavier Redcliffe*
Typed by : *Xavier Redcliffe*
Business Unit : *Sustainability Business Unit – DoH Programme*
Prepared for : *Bidders*
Date of Issue : *11 August 2026*

Copyright

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

DOCUMENT CONTROL SHEET

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

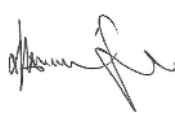
PROJECT NAME : *COMPLETION OF THE CATHLAB AND CSSD AT THE LIVINGSTONE
PEPH HOSPITAL COMPLEX*

DOCUMENT TITLE : *PROJECT ENVIRONMENTAL SPECIFICATION*

DOCUMENT No. : *CDC-SBU-SPC-212-26*

SIGNING OF THE ORIGINAL DOCUMENT

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

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 11 August 2026	Name: Siseko Gwavu	Name: Xavier Redcliffe	Name: Xavier Redcliffe
	Signature: 	Signature: 	Signature: 

Distribution:	Coega Development Corporation
----------------------	--------------------------------------

REVISION CHART

REVISION	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:
Document Title	<i>Project Health and Safety Specification</i>		
Document Control Number	Revision	Issue Date	

Revision Number	Alteration	Date
1		
2		

TABLE OF CONTENTS

1.	SCOPE
2.	INTERPRETATION
2.1	Supporting specifications
2.2	Application
2.3	Definitions
3.	MATERIALS
3.1	Materials handling, use and storage
3.2	Stockpiling
3.3	Solid waste management
3.4	Water use
3.5	Hazardous substances
3.6	Contaminated water
3.7	Cement and concrete batching
4	PLANT
4.1	Fuel (petrol and diesel) and oil
4.2	Ablution facilities
4.3	Eating areas
4.4	Site structures
4.5	Lights
4.6	Workshop, equipment maintenance and storage
4.7	Noise
4.8	Dust Control
5	CONSTRUCTION
5.1	Method Statements
5.2	Contractor's SHE Officer and Assistants
5.3	Environmental awareness training
5.4	Site division
5.5	Site demarcation
5.6	"No go" areas
5.7	Access routes/ haul roads
5.8	Construction personnel information posters
5.9	Fire control
5.10	Emergency procedures
5.11	Community relations
5.12	Protection of natural features
5.13	Protection of flora and fauna
5.14	Stormwater management
5.15	Erosion and sedimentation control
5.16	Aesthetics
5.17	Recreation
5.18	Temporary site closure
5.19	Protection of archaeological and palaeontological sites
6.	TOLERANCES
7.	TESTING
8.	MEASUREMENT AND PAYMENT
8.1	Basic Principles
8.2	Scheduled Items

1. SCOPE

This Project Environmental Specification (PES) covers the requirements for controlling the impact on the environment of construction activities. The PES is applicable to all construction work activities intended to be performed across the various Provinces. The PES should be read with the project specific scope of work prescribed in the Tender documents.

2. INTERPRETATION

2.1 Supporting Specifications

Where the PES is required for a project, the following supporting specifications shall, where applicable, form part of the Contract Documents where necessary:

- (a) EMPr
- (b) Form of Contract e.g. JBCC, GCC or Fidic Equivalent Specification etc
- (c) EA/RoD

2.2 Application

This PES contains clauses that are generally applicable to the undertaking of built or engineering works as it is necessary to impose pro-active controls on the extent to which the construction activities impact on the environment. Interpretations and variations are set out in this Project Environmental Specification. In the event of any difference or discrepancy between the provisions of this Project Environmental Specification and the provisions of the Project Specifications then the provisions of the Project Specification shall prevail.

2.3 Definitions

For the purposes of this PES, the definitions and abbreviations given in the applicable specifications listed in 2.1 and the following definitions and abbreviations shall apply:

2.3.1 CDC:

Means Coega Development Corporation (Pty) Ltd.

2.3.2 Cement laden water:

Means water containing cement or concrete arising from the Contractor's activities.

2.3.3 Contaminated water:

Means water contaminated by the Contractor's activities such as with hazardous substances, hydrocarbons, paints, solvents and runoff from plant, workshop or personnel wash areas but excludes water containing cement/ concrete or silt.

2.3.4 Environment:

Means the surroundings within which human beings exist and these comprise of:

- (i) The land, water and atmosphere of the earth;
- (ii) Micro-organisms, plant and animal life;
- (iii) Any part or combination of (i) and (ii) and the interrelationships among and between them; and
- (iv) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

2.3.5 His:

Means his or her, as applicable.

2.3.6 Method Statement:

Is a written submission by the Contractor to the Engineer in response to the Specifications or to a request by the Engineer, setting out the plant (construction equipment), materials, labour and method the Contractor proposes using to carry out an activity, identified by the relevant specification or the Engineer when requesting the Method Statement. The Method Statement shall be in such detail that the Engineer is able to assess whether the Contractor's proposal is in accordance with the Specifications and/or will produce results in accordance with the Specifications. The Method Statement shall cover applicable details with regard to:

- Construction procedures;
- Materials and equipment to be used;
- Getting the equipment to and from Site;
- How the equipment/ materials will be moved while on Site;
- How and where materials will be stored;
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Timing and location of activities;
- Compliance/ non-compliance with the Specifications; and
- Any other information deemed necessary by the Engineer.

2.3.7 Potentially hazardous substance:

Is a substance, which, in the reasonable opinion of the Engineer, can have a deleterious effect on the environment. Hazardous Chemical Substances are defined in the Regulations for Hazardous Chemical Substances published in terms of the Occupational Health and Safety Act.

2.3.8 Reasonable:

Means, unless the context indicates otherwise, reasonable in the opinion of the Engineer, after he has consulted with CDC Sustainability Business Unit.

2.3.9 Silt laden water

Means water containing sand and silt arising from the Contractor's activities and/or as a result of natural run-off.

2.3.10 Site:

This is the area in the possession of the Contractor for the construction of the Works. Where the area is not demarcated, it will include all adjacent areas, which are reasonably required for the activities for the Contractor and approved for such use by the Engineer.

2.3.11 Solid waste:

Means all solid waste, including construction debris, chemical waste, excess cement/concrete, wrapping materials, timber, tins, cans, drums, wire, nails, food and domestic waste (e.g. plastic packets and wrappers).

3 MATERIALS

3.1 Materials handling, use and storage

The Contractor shall ensure that any delivery drivers are informed of all procedures and restrictions (including "no go" areas) required to comply with the Specifications. The Contractor shall ensure that these delivery drivers are supervised during off loading, by someone with an adequate understanding of the requirements of the Specifications. Materials shall be appropriately secured to ensure safe passage between destinations. Loads including, but not limited to sand, stone chip, fine vegetation, refuse, paper and cement, shall have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

All manufactured and/ or imported material shall be stored within the Contractor's camp, and, if so required by the Project Specification, out of the rain. All lay down areas outside of the construction camp shall be subject to the Engineer's approval. Imported gravel, fill, soil and sand materials shall be free of weeds, alien invasive seed matter, plant material, litter and contaminants and shall be obtained from sources approved by the Engineer. A Method Statement detailing the source and methods to ensure compliance with this specification shall be submitted to the Engineer.

3.2 Stockpiling

Any stockpiling of gravel, cut, fills or any other material including spoil shall be in areas approved by the Engineer within the defined working area. The Contractor shall ensure that the material does not blow or wash away. If the stockpiled material is in danger of being washed or blown away, the Contractor shall spray it with material that is not detrimental to the environment or cover it with a suitable material, such as hessian or plastic. Stockpiles of topsoil shall not be covered with plastic. No stockpiling of any material shall be allowed within the 100m of any residential areas or 20m of any "no go" area. Stockpiles will not be stacked higher than 2 meters.

3.3 Solid waste management

No on-site burning, burying or dumping of any waste materials, litter or refuse shall occur. The Contractor shall provide vermin and weatherproof bins with lids of sufficient number and capacity to store the solid waste produced daily. The lids shall be always kept firmly on the bins. Bins shall not be allowed to become overfull and shall be emptied at least once a day. A designated area shall be established, enclosed with signage always provided. The waste from bins may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, and which the Engineer has approved. Recyclable waste shall be disposed of into separate skips/bins and removed off-site for recycling. All solid waste shall be disposed off site at an **approved landfill Site**. The Contractor shall supply the Engineer with the appropriate disposal certificates and kept in the Environmental File.

The Contractor must facilitate the re-use of cleared trees and bush (e.g. by allowing controlled wood cutting and removal of wood). Cleared vegetation may only be burnt when no other form of re-use (e.g. **chipping or composting**) is practical or economical. Burning of cleared vegetation may only take place in a safe area (e.g. borrow pit) after permission has been obtained from all the relevant authorities and the Fire Department has been informed.

The Contractor must ensure that cleared trees and wood are removed from the Site within **45 days** of Site clearance. The Contractor shall submit a solid waste management Method Statement to the Engineer. The contractor shall provide Certificates of safe disposal for all waste removed site.

3.4 Water use

All sources of water for construction purposes must be approved by the Engineer in writing before any such sources can be used to obtain water. Water collection must be kept in the form of registers and record all water cotted per day.

3.5 Hazardous substances

The transportation and handling of hazardous substances must comply with the provisions of the Hazardous Chemical Substances Act (Act No. 85 of 1993) and associated regulations as well as SABS 0228 and SABS 0229. The Contractor shall also comply with all other applicable regional and local legislation and regulations regarding the transport, use and disposal of hazardous substances. Hazardous chemical substances (as defined in the Regulations for Hazardous Chemical Substances) used during construction shall be stored in secondary containers. The relevant Safety Data Sheets (SDS) shall be available on Site. Procedures detailed in the SDSs shall be followed in the event of an emergency.

The Contractor shall be responsible for the training and education of all personnel on Site who will be handling hazardous materials about their proper use, handling and disposal. If potentially hazardous substances are to be stored or used on Site, the Contractor shall submit a Method Statement to the Engineer detailing the substances / materials to be used, together with the transport, storage, handling and disposal procedures for the substances.

3.6 Contaminated water

Potential pollutants of any kind and in any form shall be kept, stored, and used in such a manner that any escape can be contained and that the water table is not endangered. Water containing such pollutants as chemicals, washing detergents, sewerage, fuels, paints and solvents and hydrocarbons shall be contained and discharged into an impermeable storage facility for removal from the site or for recycling. This particularly applies to runoff from fuel depots/workshops/truck washing areas. The Contractor may direct contaminated water into a sewerage main, provided that authorisation has been obtained from the local authority and that the Engineer has provided written permission for this action.

Wash down areas shall be placed and constructed in such a manner so as to ensure that the surrounding areas are not polluted. The Contractor shall notify the Engineer immediately of any pollution incidents on Site. The Contractor shall submit a Method Statement to the Engineer detailing how the contaminated water will be managed on Site.

3.7 Cement and Bulk Mixing Plant

The proposed location of bulk mixing plant (including the location of cement stores and sand and aggregate stockpiles) shall be indicated on the Site layout plan and approved by the Engineer. All wastewater generated from the operation and cleaning of concrete mixing equipment and other sources of concrete shall be passed through a concrete wastewater settlement system as depicted in the appropriate drawing. The water from this system shall not be allowed to flow into any “no go” area or water course but must permeate through the ground before it reaches any such water course. The accumulated sludge in the settlement system must be regularly cleaned out and appropriately disposed of as solid waste.

The Contractor shall ensure that minimal water is used for washing of concrete mixing equipment. Used cement bags shall be disposed of in weatherproof bins on site to prevent the generation of wind-blown cement dust and the bags from blowing away. During construction, the contractor must ensure that concrete is mixed on mortar boards, all visible remains of concrete are removed and disposed of as waste and that all surplus aggregate is removed. A Method Statement detailing all actions to be taken to comply with the cement and mixing requirements shall be submitted to the Engineer.

4 PLANT

4.1 Fuel – Petrol, Diesel, Oil Etc

4.1.1 Fuel Storage

Fuel can be stored on site. The location of the fuel storage area will be approved by the Engineer and will be situated at least 100m away from any major drainage systems, residential areas or “no go” areas. All necessary approvals with respect to fuel storage and dispensing shall be obtained from the appropriate authorities. Symbolic safety signs depicting “No Smoking”, “No Naked Lights” and “Danger” conforming to the requirement of SABS 1186 shall be prominently displayed in and around the fuel storage area. There shall be adequate fire-fighting equipment at the fuel storage area. The Contractor shall ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly always shut and under lock and key.

The capacity of the tank shall be clearly displayed, and the product contained within the tank clearly identified using the emergency information system detailed in SABS 0232 part 1. Fuel storage tanks shall have a capacity not exceeding **9000 litres** and shall be kept on site only for as long as fuel is needed for construction activities, on completion of which they shall be removed.

Tanks on site shall not be linked or joined via any pipe work but shall remain as separate entities. The tanks shall be situated on a smooth impermeable base with a bund. The volume inside the bund shall be 110% of the total capacity of the largest storage tank. The base may be constructed of concrete, or of plastic sheeting with impermeable joints with a layer of sand over to prevent perishing. The impermeable lining shall extend to the crest of the bund. The floor of the bund shall be sloped to enable any spilled fuel and/or fuel-contaminated water to be removed. Appropriate material, approved by the Engineer that absorbs/ breaks-down or encapsulates minor hydrocarbon spillage and which is effective in water shall be installed in the sump.

The tanks and bunded areas shall be covered by a roofed structure, as detailed in the appropriate drawing, to prevent the bunded area from filling up with rainwater. This structure shall be constructed in such a way, and to the approval of the Engineer, to ensure that it is not dislodged by wind. If any water does collect in the bunded area it shall be removed within a day of this occurring and taken off Site to a disposal site approved by the Engineer, and the material that absorbs/ breaks-down or encapsulates minor hydrocarbon spillage shall be replenished.

Only empty and externally clean tanks may be stored on the bare ground. Empty and externally dirty tanks shall be sealed and stored on an area where the ground has been protected. Adequate precautions shall be provided to prevent spillage during the filling of any tank and during the dispensing of the contents. The dispensing mechanism for the fuel storage tanks shall be stored in a waterproof container when not in use. A Method Statement shall be submitted to the Engineer detailing the design, location and construction of the fuel storage area as well as for the filling and dispensing from storage tanks and for the type of absorbing/ breaking-down or encapsulating material to be used.

4.1.2 Refuelling

Where reasonably practical, plant shall be refuelled at a designated re-fuelling area/depot or at a workshop as applicable. If this is not reasonably practical, then the surface under the refuelling area shall be protected and appropriately bunded against pollution to the reasonable satisfaction of the Engineer prior to any refuelling activities. If fuel is dispensed from **200 litre** drums, the proper dispensing equipment shall be used, and the drum shall not be tipped to dispense fuel. The Contractor shall ensure that the appropriate fire-fighting equipment is present during refuelling operations. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials shall be able to handle a minimum of **200 l** of hydrocarbon liquid spill. Prior to any refuelling or maintenance activities, the Engineer must approve this material.

4.1.3 Used oil and hydrocarbon contaminated materials

Used oil shall be stored at a central location on Site prior to removal off Site for disposal at an approved disposal or recycling site. Old oil filters and oil, petrol and diesel-soaked material shall be treated as hazardous waste. The Contractor shall remove all oil, petrol, and diesel-soaked sand immediately and shall dispose of it as hazardous waste or treat it on site with material that breaks-down or encapsulates such spillages as approved by the Engineer.

4.2 Ablution Facilities

Washing, whether of the person or of personal effects, and acts of excretion and urination are strictly prohibited other than at the facilities provided. The Contractor shall provide the necessary ablution facilities for all his personnel prior to the commencement of work and shall ensure that his personnel make use of the facilities. Toilet facilities shall be supplied by the Contractor for the workers at a ratio of at least **1 toilet per 15 workers** in areas approved by the Engineer. Every 1-man urinal will be taken as supplying the equivalent of 5 men in addition to the 15 men per toilet on site. No toilets will be erected within 100m of any residential areas, within 20m of the edge of the Site, within 50m of any “no go” areas or any major drainage systems. Toilets shall be situated within 200m of any area where work is taking place in numbers sufficient to meet the ratio depicted above for the workers in the area. Mobile toilets (e.g. trailer mounted) should be considered for Sites, where workers may be expected to cover large distances every day.

The facilities shall be maintained in a hygienic state, good state of repair and serviced regularly. Toilet paper, soap, sanitizer, form of towels shall be provided. Temporary/ portable toilets shall be secured to the ground to prevent them toppling due to wind or any other cause, to the satisfaction of the Engineer. Discharge into the environment and burial of waste is strictly prohibited. The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from the Site. Toilets shall be emptied before the Contractors' holidays or any other temporary site closure.

4.3 Eating Areas

The Contractor shall designate eating area/s, subject to the approval of the Engineer. The facilities shall be maintained in a hygienic state, good state of repair and serviced regularly. No cooking is allowed outside of the Contractor's camp area on Site. At mealtimes all workers must eat in designated eating areas. More than one area may be required for large Sites and to accommodate issues of Social Distancing. These areas shall have shade for the workers. The eating areas may be in existing structures or in temporary/ transportable structures that shall be well constructed using wood or metal for the frame and screened on the top and sides with shade cloth/ canvas or other material to the satisfaction of the Engineer. These areas shall be well demarcated and in locations approved by the Engineer and shall not be within 100m of any "no go" areas or any major drainage systems, on or adjacent to the Site. There must be Sanitizer Stations at each eating areas and sufficient bins shall be present in these areas. All disposable food packaging must be disposed of in the bins after every meal. The feeding or leaving of food for animals is strictly prohibited.

4.4 Site Structures

All site establishment components (as well as equipment) shall be positioned to limit visual intrusion on neighbours and the size of the land area disturbed. The type and colour of roofing and cladding materials to the Contractor's temporary structures shall be selected to reduce reflection. The Contractor shall supply and maintain adequate and suitable sheds for the storage of materials. Sheds for the storage of materials that may deteriorate or corrode if exposed to the weather shall be weatherproof, adequately ventilated and provided with raised floors.

4.5 Lights

The Contractor shall ensure that any lighting installed on the Site for his activities does not interfere with road traffic or cause a reasonably avoidable disturbance to the surrounding community or other users of the area.

4.6 Workshop, equipment maintenance and storage

Where practicable, all maintenance of equipment and vehicles on Site shall be performed in a workshop. If it is necessary to do maintenance outside of the workshop area, the Contractor shall obtain the approval of the Engineer prior to commencing such activities. No maintenance, including emergency maintenance, of plant can take place within 50m of any "no go" area or drainage system.

The Contractor shall ensure that in his workshop and other plant maintenance facilities, including those areas where, after obtaining the Engineer's approval, the Contractor carries out emergency plant maintenance, there is no contamination of the soil or vegetation. The workshop shall have a smooth impermeable (concrete or thick plastic covered with sand) floor. The floor shall be bunded and sloped towards an oil trap or sump to contain any spillages. When servicing equipment, drip trays shall be used to collect the waste oil and other lubricants. **Drip trays** shall also be provided in construction areas for stationary plant (such as compressors) and for "parked" plant (such as scrapers, loaders, vehicles) always.

All vehicles and equipment shall be kept in good working order and serviced regularly. Leaking equipment shall be repaired immediately or removed from the Site. The washing of equipment shall be restricted to urgent or preventative maintenance requirements only. All washing shall be undertaken in the workshop or maintenance areas, and these areas must be equipped with a suitable impermeable floor and sump/oil trap. The use of detergents for washing shall be restricted to low phosphate and nitrate containing and low sudsing-type detergents. A Method Statement must be submitted to the Engineer detailing the design of the bunding of the workshop and how run-off from the workshop will be managed as well as how drip trays used under plant will be managed.

4.7 Noise

The Contractor shall take precautions to minimise noise generated on Site (e.g. Install and maintain silencers on machinery). The Contractor shall comply with the Noise Induced Hearing Loss Regulations published under the Occupational Health and Safety Act. Appropriate directional and intensity settings are to be maintained on all hooters and sirens. No amplified music shall be allowed on Site. The use of radios, tape recorders, compact disc players, television sets etc shall not be permitted unless the volume is kept sufficiently low as to avoid any intrusion on members of the public within range. The Contractor shall not use sound amplification equipment on Site unless in emergency situations.

4.8 Dust Control

The Contractor shall be responsible for the continued control of dust arising from his operations. The Contractor shall inform the Engineer 48 hours in advance of anticipated 'unavoidable' dust generating activities. The Contractor shall take all reasonable measures to minimize the generation of dust because of construction activities to the satisfaction of the Engineer. Appropriate dust suppression measures include spraying or dampening with water, using a commercial dust binder, rotovating straw bales, planting of open cleared space and the scheduling of dust-generating activities. If the conditions are such that the Contractor cannot satisfactorily dampen the dust, then the Engineer may halt operations until such time as the conditions are more suitable for lower dust generating construction.

Damping of all gravel haul and access roads with water must be ongoing and special attention must be given to roads close to residential areas. Should dust still be a problem on any specific road, the allowable speed will be reduced to 20km/h. If dust is still a problem the road should be treated with a commercial dust binder, as required, to form a cohesive layer that will control the dust on the road. Areas that are to have the topsoil stripped for construction purposes must be limited and only stripped when work is about to take place.

Other activities and situations that may result in a dust nuisance include site clearance and other earth moving operations, open cleared space, stockpiles of topsoil or sand and activities associated with concrete batching plants. A Method Statement detailing how dust will be managed for different operations on the site must be submitted to the Engineer for his approval before any work that could result in dust being generated is undertaken.

5 CONSTRUCTION

5.1 Method Statements

The following Method Statements, as well as any required by the Project Specification, shall be provided by the Contractor and submitted with the Environmental File for reviewing and approval upon to the awarding of a Contract and prior commencement of construction work.

5.1.1 Solid waste management (Clause 3.3)

Expected solid waste types, quantities, methods and frequency of collection and disposal as well as location of disposal sites.

5.1.2 Contaminated water (Clause 3.6)

Methods of minimising, controlling, collecting and disposing of contaminated water.

5.1.3 Contractors SHE Officer (Clause 5.2)

The name and letter of appointment of the Contractors SHE Officer must be given to the Engineer and the terms of reference for the work to be undertaken by the SHE Officer must be detailed including time on site, CV, roles and responsibility, interaction with the Contractor and environmental offices, etc.

5.1.4 Site division (Clause 5.4)

The location, layout and method of establishment of the construction camp (including all buildings, offices, lay down yards, vehicle wash areas, fuel storage areas, bulk mixing plant and other infrastructure required for the running of the project)

5.1.5 Emergency procedures (Clause 5.10)

Emergency procedures for fire and accidental leaks and spillages of hazardous substances (including fuel and oil). Include details of risk reduction measures to be implemented including firefighting equipment, fire prevention procedures and spill kits (materials and compounds used to reduce the extent of spills and to breakdown or encapsulate hydrocarbons). Other Method Statements that will be required during construction are to be provided by the Contractor a minimum of 20 days prior to commencement of the works or activities to which they apply (no work can commence on site before these Method Statements have been approved):

5.1.6 Importing of material (Clause 3.1)

Detail the source of any gravel, soil, aggregate or sand imported onto site and precautions taken to ensure no vegetative contamination.

5.1.7 Hazardous substances (Clause 3.5)

Details of any hazardous substances / materials to be used, together with the transport, storage, handling and disposal procedures for the substances.

5.1.8 Cement and bulk mixing plant (Clause 3.7)

Location, layout and preparation of cement/ concrete mixing areas including the methods employed for the mixing of concrete and particularly the containment of runoff water from such areas and the method of transportation of concrete.

5.1.9 Fuel storage and use (Clause 4.1)

The design, location and construction of the fuel storage area as well as for the filling and dispensing from storage tanks.

5.1.10 Workshop and drip trays (Clause 4.6)

Location, layout, design and pollution control for Workshop as well as management of drip trays under plant.

5.1.11 Dust (Clause 4.8)

Details on the methods for managing dust on the site.

5.1.12 Environmental awareness training (Clause 5.3)

Number, dates, trainer and logistics for the initial awareness courses for the Contractor's employees and for the management Staff.

5.1.13 Access Routes (Clause 5.7)

Details, including a drawing, showing where and how the access points and routes will be located and managed. Any additional Method Statements as required by the Engineer, or the Project Specification must be provided by the Contractor. The Contractor shall not commence the activity until the Method Statement has been approved in writing and shall, except in the case of emergency activities, allow a period of 20 working days for approval of the Method Statement.

The Engineer may require changes to a Method Statement if the proposal does not comply with the specification or if, in the reasonable opinion of the Engineer, the proposal may result in, or carries a greater than reasonable risk of, damage to the environment more than that permitted by the Specifications or any legislation. Approved Method Statements shall be readily available on the Site and shall be communicated to all relevant personnel and subcontractors. The Contractor shall carry out the Works in accordance with the approved Method Statement. Approval of the Method Statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the Contract. No claim for delay or additional cost incurred by the Contractor shall be entertained due to inadequacy of a Method Statement.

“Details of the following appointments are required within 7 days before commencing work on site”:

5.1.14 Assistants to the Contractor’s SHE Officer (Clause 5.2) (if applicable)

The name and appointment letter of the assistants to the Contractor’s SHE Officer must be given to the Engineer and the work to be undertaken by these assistants must be detailed including time allocated to these roles and their responsibility and interaction with the Contractors SHE Officer.

5.1.15 Fire Officer/Marshall (Clause 5.9)

The name and appointment letter of the Fire Officer/Marshall must be given to the Engineer.

5.2 Contractor’s SHE Officer

The Contractor shall appoint a Contractor’s SHE Officer who shall be responsible for undertaking a daily site inspection to monitor compliance with this Specification and the relevant Project Specification. The Contractor shall submit the name of the Contractor’s SHE Officer as well as a Method Statement detailing his CV, roles and responsibilities to the Engineer for his approval before work can commence on site.

The Contractor will also appoint reliable staff, who will assist and report to the Contractor’s SHE Officer, to the following positions:

- Litter Assistant to ensure that the site is cleaned every day and that dustbins are not overflowing, and litter does not blow off the site into the surrounding areas.
- Hydrocarbon and Contaminated Water Assistant to ensure that any hydrocarbon spills or leaks are dealt with immediately, vehicles are not leaking hydrocarbons on site, there is no pollution of any water course/ drainage system on or adjacent to site due to any construction activities, all stationary plant has bunds around them that are kept in good working order, the fuel storage and refuelling area is free of spills and leaks of hydrocarbons and any other issues to do with hydrocarbon housekeeping on site. He will also ensure that no contaminated water is escaping onto the site and that the toilets are kept in a clean and good working condition.

- Demarcation and Dust Assistant to ensure that all fencing and demarcation is in place when it is required and that such fencing or demarcation is in good order daily. This person will also be responsible to ensure that excessive dust is not generated from the construction area and will ensure that the roads are watered, and other areas dampened where necessary and any other actions taken to limit dust generation from site.

These appointments will be made within 7 days before commencing of work on site and will be given to the Engineer in writing.

5.3 Environmental awareness training

Environmental awareness training courses shall be run for all personnel on site. Two types of course shall be run, one for the Contractor's and Subcontractor's management and one for all site staff and labourers. Courses shall be run in the morning during normal working hours at a suitable venue provided by the Contractor. All attendees shall remain for the duration of the course and sign an attendance register on completion that clearly indicates participant's names, a copy of which shall be handed to the Engineer. The size of each session shall be limited to **30** people. The Contractor shall allow for sufficient sessions to train all personnel. Subsequent sessions shall be run for any new personnel coming onto site. A Method Statement with respect to the organisation of these courses shall be submitted. Notwithstanding the specific provisions of this clause it is incumbent upon the Contractor to convey the sentiments of the EMP to all personnel and Subcontractors involved with the Works.

5.3.1 Training course for management and foremen

The environmental awareness training course for management shall include all management staff and foremen. The course, which will be presented by the Engineer's SHE Coordinator, will be of approximately one-hour duration. The initial course shall be undertaken not less than 7 days prior to commencement of work on site. Subsequent courses shall be held as and when required.

5.3.2 Training course for site staff and labour

The environmental awareness training course for site staff and labour shall be presented by the Contractor's SHE Officer from material provided by the Engineer unless otherwise required by the Project Specification. The course will be approximately one-hour long. The course shall be run not more than 7 days after commencement of work on site with sufficient sessions to accommodate all available personnel. Subsequent courses shall be held as and when required.

5.4 Site division

The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. A Method Statement detailing the location, layout and method of establishment of the construction camp (including all buildings, security guard house/s, offices, lay down yards, vehicle wash areas, fuel storage areas, bulk mixing plant and other infrastructure required for the running of the project) shall be submitted to the Engineer. No accommodation for any staff is permitted on the Site.

5.5 Site demarcation

As required by the Project Specification, the Contractor shall erect and maintain permanent and / or temporary fences of the type and in the locations directed by the Engineer. Such fences shall, if so specified, be erected before undertaking designated activities.

5.6 "No go" areas

If so required by the Project Specification, certain areas within or next to the Site shall be "no go" areas. The Contractor shall ensure that, insofar as he has the authority, no person, machinery, equipment or materials enter the "no go" areas at any time.

5.7 Access routes/ haul roads

On the Site and, if so required by the Project Specification, within such distance of the Site as may be stated, the Contractor shall control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic and that all relevant laws are complied with. In addition, such vehicles and plant shall be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On gravel or earth roads on Site and within 500m of the Site, the vehicles of the Contractor and his suppliers shall not exceed a speed of 45 km/hr or as directed by the Engineer. The Contractor shall supply the Engineer with a Method Statement detailing the location and management of all access points and roads.

5.8 Construction personnel information posters

The Contractor shall erect and maintain information posters for the information of his employees depicting actions to be taken to ensure compliance with the Environmental Specifications. Construction personnel information posters shall be laminated and erected in all eating areas, workshops and site offices.

The Contractor shall ensure that the construction personnel information posters are not damaged in any way and shall replace them if any part becomes illegible. Examples of these posters will be supplied to the Contractor by the Engineer in electronic format.

5.9 Fire control

The Contractor shall take all the necessary precautions to ensure that fires are not started as a result of his activities on Site. No open fires shall be permitted on the Site, with the exception of burning of cleared vegetation after approval by the Engineer and relevant authorities. Any fires that occur shall be reported to the Engineer immediately. Smoking shall not be permitted in those areas where there is a fire hazard. Such areas shall include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to support the rapid spreading of an initial flame.

The Contractor shall appoint a Fire Marshall who shall be responsible for ensuring immediate and appropriate actions in the event of a fire and shall ensure that employees are aware of the procedures to be followed. The Contractor shall forward the name of the Fire Marshall to the Engineer for his approval within 7 days of being on site. The Contractor shall ensure that there is basic fire-fighting equipment available on Site at all times. This shall include at least rubber beaters when working in urban open spaces and natural areas, and at least one fire extinguisher of the appropriate type when welding or other “hot” activities are undertaken. The Contractor shall be liable for any expenses incurred by any organisations called to assist with fighting fires that were started as a result of his activities or personnel, and for any cost relating to the rehabilitation of burnt areas, or consequential damages.

5.10 Emergency procedures

Emergency procedures, including the names and contact details of responsible personnel and emergency services shall be made available to all staff and shall be clearly displayed at relevant locations at the Site. The Contractor shall advise the Engineer of any emergencies on Site, together with a record of action taken, within 24 hours of the emergency occurring. Telephone numbers of emergency services shall also be posted conspicuously in the Contractor’s office near the telephone. The Contractor shall submit a Method Statement covering the procedures for the following emergencies:

5.10.1 Fire:

The Contractor shall advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it. The Contractor shall ensure that his employees are aware of the procedures to be followed in the event of a fire.

5.10.2 Accidental leaks and spillages:

The Contractor shall ensure that his employees are aware of the procedures to be followed for dealing with spills and leaks, which shall include notifying the Engineer and the relevant authorities. The Contractor shall ensure that all the necessary materials and equipment for dealing with spills and leaks are always available on Site. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the Engineer.

In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials shall be able to handle a minimum of 200 l of hydrocarbon liquid spill. Any spills must be cleared, and the contaminated soil/sludge disposed of in an appropriate manner, approved by the Engineer, or at a licensed hazardous waste disposal site.

5.11 Community relations

If so, required by the Project Specification, the Contractor shall erect and maintain information boards in the positions, quantities, designs and dimensions specified. Such boards shall include contact details for complaints by members of the public in accordance with details provided by the Engineer. The Contractor shall keep a "Complaints Register" on Site. The Register shall contain all contact details of the person who made the complaint, and information regarding the complaint itself and note the date and time that the complaint was resolved. The Engineer shall be responsible for responding to queries and/or complaints and may request assistance from the Contractor's Management Staff.

5.12 Protection of natural features

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes unless agreed beforehand with the Engineer. Any features affected by the Contractor in contravention of this clause shall be restored / rehabilitated to the satisfaction of the Engineer. The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams, and open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.

5.13 Protection of species

5.13.1 Flora

Except to the extent necessary for the carrying out of this Works, flora shall not be removed, damaged or disturbed nor shall any vegetation be planted. The search and rescue of rare, endemic or endangered species prior to Site clearance must be carried out in accordance with the Vegetation Specifications by the competent service provider. Where the site has dense vegetation the Contractor must at the same time perform bush clearing with the presence of flora search and rescue service provider, depending on the provisions made for this activity and approval by the appointed Engineer. The removal and stockpiling of topsoil must also be carried out in accordance with the Vegetation Specifications.

5.13.2 Fauna

Except to the extent necessary for the carrying out of this Works, fauna shall not be removed, injured or disturbed nor shall be killed. Trapping, poisoning and/or shooting of fauna is strictly forbidden. No domestic pets or livestock are permitted on Site. The search and rescue of fauna, endemic or endangered species prior to Site clearance must be carried out in accordance by the competent Service Provider. Where the site has dense vegetation the Contractor must at the same time perform bush clearing with the presence of fauna search and rescue Service Provider, depending on the provisions made for this activity and approval by the appointed Engineer. Trapping or capturing and removal of fauna from site will only be performed by the approved competent Service Provider.

5.14 Stormwater management

Natural run-off must be diverted to stormwater drains where these are available. The Contractor shall take appropriate measures to prevent sand, silt and silt-laden waters from entering stormwater drains, or any surface water course.

The Contractor shall take reasonable measures to control the erosive effects of stormwater runoff particularly where excavation and construction activities form temporary channels. Suitable energy breaking devices, cut-off drains, diversions and retention ponds shall be employed to ensure that storm water runoff from the Site is dissipated and does not exceed the capacity of the surrounding stormwater system and excessive suspended solids are settled before they enter the stormwater system or any surface water course. If required in the Project Specification, the Contractor shall submit a Method Statement to the Engineer detailing how stormwater will be managed on Site.

5.15 Erosion and sedimentation control

The Contractor shall take all reasonable measures to limit erosion and sedimentation due to construction activities and shall, in addition, comply with such detailed measures as may be required by the Project Specification. Where erosion and/or sedimentation, whether on or off the Site, occurs despite the Contractor complying with the foregoing, rectification shall be carried out in accordance with details specified by the Engineer. Where erosion and/or sedimentation occurs due to the fault of the Contractor, rehabilitation shall be carried out to the reasonable requirements of the Engineer and at the expense of the Contractor.

5.16 Aesthetics

The Contractor shall take reasonable measures to ensure that construction activities do not have an unreasonable impact on the aesthetics of the area.

5.17 Recreation

If so, required by the Project Specification, the Contractor shall take measures to reduce disruption to recreational users of the area abutting the Site.

5.18 Temporary site closure

If the Site is closed for a period exceeding 5 days, the Contractor's SHE Officer in consultation with the Engineer shall carry out the following checklist procedure and ensure that the following conditions pertain and report on compliance with this clause:

5.18.1 Fuels / flammables / hazardous materials stores

- Fuel stores are as low in volume as practicable.
- There are no leaks.
- The outlet is secure and locked.
- The bund is empty.

- Fire extinguishers are serviced and accessible.
- The area is secure from accidental damage through vehicle collision and the like.
- Emergency and contact numbers are available and displayed.
- There is adequate ventilation in enclosed spaces.
- There are no stores or containers within the 1:50 year flood line.

5.18.2 Safety

- Site safety checks have been carried out in accordance with the Occupational Health and Safety Act (No. 85 of 1993) prior to site closure.
- An inspection schedule and log for use by security or contracts staff is developed.
- All trenches and manholes are secured.
- Applicable notice boards are in place and secured.
- Emergency and Management contact details are prominently displayed.
- Security personnel have been briefed and have the facilities to contact or be contacted by relevant management and emergency personnel.
- Night hazards such as reflectors, lighting, traffic signage etc have been checked.
- Fire hazards identified and the local authority notified of any potential threats e.g. large brush stockpiles, fuels etc.
- Pipe stockpiles are wedged / secured.
- Scaffolds are secure.
- Structures vulnerable to high winds secure.

5.18.3 Erosion

- Wind and dust mitigation measures such as straw, brush packs, irrigation etc are in place.
- Excavated and filled slopes and stockpiles are at a stable angle and capable of accommodating normal expected water flows.
- Re-vegetated areas have a watering schedule and the supply to such areas is secured.
- There are sufficient detention ponds or channels in place.

5.18.4 Water contamination and pollution

- Hazardous fuel stores are secure.
- Cement and materials stores are secure.
- Toilets are empty and secured.
- Refuse bins are empty and secured.

- Bunding is clean and treated with appropriate material that will absorb/ breakdown and where possible be designed to encapsulate minor hydrocarbon spillage.
- Drip trays are empty & secure.

5.19 Protection of archaeological and palaeontological sites

If any possible palaeontological/archaeological material is found during excavation work, including shell middens, Stone Age tools, fossil bones and other artefacts, graves and wrecked vessels, the Contractor shall stop work immediately and inform the Engineer. The Engineer will inform the South African Heritage Resources Agency (SAHRA) and arrange for a palaeontologist/archaeologist to conduct inspection and studies, and if necessary, excavate, the material, subject to acquiring the requisite permits from SAHRA at the following address:

111 Harrington St,
Zonnebloem,
Cape Town,
8001

Postal Address: PO Box 4637

Email: info@sahra.org.za

Telephone: [0214624502](tel:0214624502)

6 TOLERANCES

Refer to Contract document.

7 TESTING

Void

8 MEASUREMENT AND PAYMENT

8.1 Basic Principles

Except as noted below and in the Project Specification as Scheduled Items, no separate measurement and payment will be made to cover the costs of complying with the provisions of this Specification and such costs shall be deemed to be covered by the rates tendered for the items in the Schedule of Quantities completed by the Contractor when submitting his Tender.

8.2 Scheduled Items

8.2.1 Protection of stock piles from blowing or washing away:

The spraying or covering of stockpiles, including the supply of the spray or cover material, as required, shall be measured as a lump sum.

8.2.2 Storage of fuel and oils:

The supply, construction, installation, transport, upkeep and removal of all facilities required for storage and management of fuel and oils will be measured as a lump sum.

8.2.3 Cement laden water management:

The supply, construction, installation, transport, upkeep and removal of all facilities required for the management of wastewater from concrete operations will be measured as a lump sum.

8.2.4 Contaminated water management:

The supply, construction, installation, transport, upkeep and removal of all facilities required for managing contaminated water will be measured as a lump sum.

8.2.5 Storm water management:

The supply, construction, installation, transport, upkeep and removal of all facilities required for managing storm water run-off from the site will be measured as a lump sum.

8.2.6 Bunding and management of run-off from workshop areas and supply of drip trays for stationary and "parked" plant:

The supply, construction, installation, transport, upkeep and removal of all facilities required for bunding and managing the run-off from workshop areas as well as all drip trays required will be measured as a lump sum.

8.2.7 Dust management:

The supply, application, transport, upkeep and removal of all materials required to ensure that dust is adequately controlled will be measured as a lump sum.

8.2.8 Fire Control:

The supply, transport, upkeep and removal of all material required for fire control will be measured as a lump sum.

8.2.9 Provision of venue and staff attendance at the environmental awareness training course:

The provision of a venue and staff attendance at the environmental training course will be measured as a lump sum. The sum shall cover all costs incurred by the Contractor in providing the venue and facilities as detailed in the Specifications and in ensuring the attendance of all relevant employees and sub-contractors and their employees, at the training.

8.2.10 Eating areas:

The supply, construction, installation, transport, upkeep and removal at the end of the construction of all eating areas structures shall be measured as a sum.

8.2.11 Ablutions:

The supply, maintenance, regular emptying and removal of toilets shall be measured as a sum.

8.2.12 Site demarcation:

The supply, installation and removal at the end of the construction of all temporary fences shall be measured by length for each type of fence scheduled.

8.2.13 Construction personnel information posters:

The supply, installation and removal at the end of the construction of all construction information posters shall be measured by number of posters for each type of poster scheduled.

8.2.14 Solid waste (including hazardous waste) management

The supply of bins and skips as well as transport of waste to appropriate waste disposal facilities shall be measured as a sum.

8.2.15 Spill kits

The supply, use and replenishment of spill kits, to be used at fuel storage areas and refuelling areas shall be measured as a sum.

8.2.16 Method Statements: Additional Work:

No separate measurement and payment will be made for the provision of Method Statements but, where the Engineer requires a change beyond the requirements of the Specification on the basis of his opinion that the proposal may result in, or carries a greater than warranted risk of damage to the environment, then any additional work required, provided it could not reasonably have been foreseen by an experienced Contractor, shall be valued in accordance with the Contract document.

8.2.17 Work "required by the Project Specification":

Where a clause in this Specification includes a requirement as "required by the Project Specification", measurement and payment for compliance with that requirement shall be in accordance with the relevant measurement and payment clause related to the Project Specification.

Acknowledgement of the H&S Specification by Principal Contractor Project Environmental Specification issued in terms of the National Environmental Act, Act (107 of 1998) read with its sub-diaries and applicable Legislation.

Acknowledgement:

I, _____ representing _____ Principal Contractor have satisfied myself with the content of the Project Environmental Specification (PES) and shall ensure that the personnel and other people visiting site comply with all relevant obligations in respect thereof.

Signature of Principal Contractor

Date

C5.4 ANNEXURE D: SOCIO-ECONOMIC DELIVERABLES – CONSTRUCTION LABOUR MANAGEMENT

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

C3.6 SOCIO-ECONOMIC DELIVERABLES - (CONSTRUCTION LABOUR)

The Coega Development Corporation (CDC), referred to hereinafter as the Implementing Agent, has placed several contractual obligations on contractors in fulfilling the objectives for the socio-economic deliverables on the project.

It is the desire of the Implementing Agent and the Client that Employment Relations practices, procedures and processes that are implemented within the project are uniform and of the highest possible standard. The objective of this approach is to promote an environment that is healthy, safe, efficient, productive, harmonious, is free of disruption and localises opportunities for communities in close proximity to the project. Such an environment will assist Contractors in implementing their projects successfully. All contractors, subcontractors (including SMMEs) and site service providers within the project have a role and responsibility in achieving this objective, and accordingly, the Main Contractor is wholly responsible in ensuring the provision, implementation and achievement of the required socio-economic deliverables.

To this end, certain mechanisms and structures have been put in place to ensure all role players in the project are aware of the socio-economic and labour requirements and obligations that are contractually binding on them, and that these are properly implemented and complied with.

A key component of the socio-economic requirements and obligations is the proper and timely completion of Standard Labour Documentation and the provision of opportunities to local community members. The formats of the Standard Labour Documentation and the support services will be made available in the contract commencement meeting.

The documentation included in specifications outlined below will provide detail to the prospective contractor to ensure a comprehensive understanding of the socio-economic specifications and labour management protocols in effect and allows for the prospective Contractor to tender accordingly.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

C3.6.1 Specification Data

The Specification Data provided herein shall have precedence in the interpretation of any ambiguity or inconsistency between it and any other applicable contract instrument addressing the same or similar deliverable.

The Main Contractor shall ensure full achievement of the following deliverables through the period of this construction contract:

Deliverable L1: Employment of local resources - provide employment opportunities to targeted labour;

L1.1: Labour Risk Assessment

L1.2: Employment

L1.3: Recruitment

L1.4: Wages

L1.5: Employment Contracts

L1.6: Labour mobilisation and demobilisation

Deliverable L2: Inductions;

Deliverable L3: Employment of Site Employment Relations Practitioners;

Deliverable L4: Employment of Community Liaison Officer;

Deliverable L5: Training and Development Interventions for contractors to achieve full compliance to the Construction Industry Development Board (cidb) Contract Skills Development Goal (CSDG): Government Gazette No. 48491 of 28 April 2023

L5.1: Structured workplace learning opportunities that result in the attainment of a part or a full occupational qualification.

L5.2: Structured workplace learning opportunities for apprentices and/or other artisan learners towards the attainment of a trade qualification in the Built environment.

L5.3: Work integrated learning opportunities for University of Technology or Comprehensive University Students completing their National Diplomas.

L5.4: Structured workplace learning for Built environment professional candidates towards professional registration by a statutory council.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L6: Provide Health & Safety Awareness Training

L6.1: General Health & Safety Awareness Training

L6.2: HIV/AIDS Prevention Awareness Training

Deliverable L7: Provide Work Readiness and Life Skills Training for designated persons

Deliverable L8: Provide Work Opportunities to Post Graduate Interns

Deliverable L9: Provide Technical Training

Deliverable L10: Accommodation for non-local construction personnel

Deliverable L11: Community Participation / Engagement

Deliverable L12: On-site communication structures

Deliverable L13: Main Contractor ensuring full compliance

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L.1: Employment of local resources - Provide employment opportunities to targeted labour

L1.1 LABOUR RISK ASSESSMENT:

Prior to construction commencement, the Main Contractor is required to conduct a labour risk assessment to highlight the most significant labour risks associated with the project (at least 10 higher risks) and provide the mitigation to deal with each of these identified risks.

The template for undertaking the risk assessment will be provided by the Implementing Agent at contract award.

The risk assessment report is to be submitted by the Main Contractor to the Principal Agent for the Implementing Agent's review and endorsement, within 21 calendar days of contract award.

L1.2 EMPLOYMENT:

The Contractor shall ensure labour and community harmony relating to the project.

The minimum number of construction personnel to be employed on the project is **25**. This number includes all approved seconded personnel. The minimum duration for individual employment recognition purposes shall be twenty two (22) continuous days employment period on site and shall exclude the same person being employed again by the same employer.

It is therefore a contractual obligation that the minimum number of construction personnel must be employed / deployed on the Project and that at least 66% of the minimum number of Jobs obligation is met at the mid-point (i.e. 50%) of the construction contract duration.

It is the obligation of the Main Contractor to ensure that this minimum employment contractual obligation is achieved across its project as a whole, all Subcontractors / SMMEs inclusive.

Efforts to provide employment to youth, women and people with disabilities will be a key focus in setting of minimum employment targets.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

The Contractor shall, at the time of bidding for the contract, complete and return the Job Forecast schedule ([Refer Annexure CDC 1](#)) setting out the anticipated numbers per job titles of labour to be utilised for the duration of the works, including the numbers of additional local labour to be employed and seconded labour, per job title. This submission must be inclusive of the labour forecast for subcontractors and on-site service providers.

Furthermore, the Contractor is required to provide the anticipated numbers of additional labour required per job title, to be utilised for the duration of the construction project. This submission, in the form of the Additional Labour Histogram ([Refer Annexure CDC 2](#)) must be inclusive of the total projected additional labour requirements of all subcontractors and on-site service providers.

The Main Contractor is required to provide the Project Labour Desk with a monthly update of the Additional Labour Histogram in the same format as provided by the Implementing Agent, or at earlier intervals should the anticipated additional labour requirement differ. All additional labour histograms should include the additional labour forecast of all subcontractors and on-site service providers.

L1.3 RECRUITMENT:

The Contractors' deliverable is the minimum of 70% labour employed / deployed on the project must be residents of Target Areas 1 & 2 as specified below. Priority employment / deployment must be provided to residents from Target Area 1.

All such additional local labour shall be employed from the Project Job Seekers' Database, established by the Implementing Agent and managed through the Project Labour Desk by Coega Human Capital Solutions, on behalf of the Implementing Agent.

The Main Contractor is required to submit a timely labour requisition to the Project Labour Desk, in the form presented by the Project Labour Desk, for the recruitment of all additional labour requirements, including that of all subcontractors (SMMEs inclusive) and on-site service providers.

The labour requisition must be submitted to the Project Labour Desk at least ten (10) days prior to the planned contractor selection date. Should the Additional Labour Histogram have been accurate and timely, then the Project Labour Desk should be successful in reducing the recruitment timelines, thereby advancing the contractor selection date.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

To avoid instances of skills misrepresentation by additional local labour recruited through the Project Labour Desk, every contractor recruiting labour must conduct a competency assessment prior to and/or immediately after selection and report any alleged skills misrepresentation / candidate deficiency to the Project Labour Desk as early as possible, preferably within one (1) working day.

The Contractors are permitted to deploy a maximum of 30% non-local seconded labour (i.e. labour who usually residing outside Target Areas 1 & 2) on the Project.

A pre-placement approval process, administered by the Project Labour Desk on behalf of the Implementing Agent, shall be in effect for all seconded labour.

In the event that the required skills are not available in the Project Job Seekers' Database, the Contractor must acquire such written confirmation from the Project Labour Desk in each instance, prior to identifying new seconded labour for approval to be deployed on the Project.

In such instances where insufficient skills are available in the Project Job Seekers' Database, it shall be the Contractor's obligation to source such personnel.

Target Areas:

- Target Area 1 shall be the geographic area which falls within the jurisdiction of the **Nelson Mandela Bay Municipality (Ward based)**;
- Target Area 2 shall be the geographic area excluding Target Area 1, which falls under the jurisdiction of the **Sarah Baartman District**;
- Target Area 3 shall be the geographic area excluding Target Area 2, which falls within the **Eastern Cape**.

Preference shall be granted to competent local labour residing in Target Area 1 above labour residing in Target Area 2 and similarly preference shall be granted to competent local labour residing in Target Area 2 above labour residing in Target Area 3.

Employment Targets:

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

The employment of youth (i.e. less than 35 years of age), women and people living with disabilities are targeted for recruitment through the Project Labour Desk, at the minimum level of:

- Youth at 50%;
- Women at 10%;
- People living with disabilities at 1%

The Main Contractor is required to ensure that all the minimum employment targets stated herein above (i.e. local, youth, women and disabilities employment) are achieved across the construction works as a whole (i.e. the main contractor, all subcontractors (including all SMMEs) and all on-site service providers), through the entire course of construction, and not just during the final phase.

L1.4 WAGES:

The Contractor shall, at the time of bidding for the contract, complete and return the Job & Wage schedule ([Refer Annexure CDC 3](#)) to indicate the minimum wage rates to be applied across the different grades/levels on the project as a whole, inclusive of all on site subcontractors' labour and on-site service providers' labour. The intention is to promote the application of standard wage rates per job function, across the project. Wages paid must be competitive enough to ensure not only labour attraction and retention, but also to promote labour productivity and harmony on site.

The rate of pay for General Worker (Task Grade 1) should not be less than the market related rate paid in the area, yet may not be less than the prevailing general National Minimum Wage (i.e. not the expanded public works programme rate). The National Minimum Wage rate projection for the year 2027 is **R 32,44** per hour and is subject to a yearly increase which is anticipated to take effect early in 2027 therefore the contractor shall tender accordingly, in light of the NMW for 2026 remaining at R 30.23 per hour.

The timing and quantum of the wage increases shall be in accordance with the prevailing arrangement in the Industry, yet may not be less than the latest available year-on-year Headline Consumer Price Index (CPI) as issued by Statistics South Africa at the time of the wage rate increase.

Such annual wage rate increases must be effected at the same time throughout the construction project (i.e. all sub-contractors / SMMEs inclusive) and at intervals of no more than 12 months.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Accordingly, no pro-rata wage increase arrangements are permitted. As an example, should a construction worker commence employment a month before the annual wage increase is effected, that construction worker would also receive the full annual wage increase the following month.

Wages shall be paid in arrears into each employee's own bank account. The Main Contractor shall elect whether such wage payments are effected at monthly or fortnightly intervals, where after uniformity of application shall be effected by the Main Contractor across the project as a whole, including all subcontractors / SMMEs and on-site service providers.

The wage payment detail, including all deductions made, must be provided in acceptable pay-slip format on or immediately before the scheduled payday. No cash payments may be made for safety reasons, and as such a condition of employment for labour shall be the possession of an active personal bank account.

The Main Contractor is required to introduce measures to effectively mitigate the risk of delayed / partial / non-payment of wages and statutory deductions by on-site subcontractors / SMMEs and on-site service providers.

Such measures could include the proactive introduction of a Central Wage Bureau Service and the temporary cessation (i.e. stopping) of the Subcontractors / SMMEs and Service Providers' works in instances where non-payment of due wages on the scheduled payday are confirmed.

L1.5 EMPLOYMENT CONTRACTS:

All additional hourly-paid construction personnel on site must each sign an employment contract before commencing employment on site.

The standard form of the limited duration employment contract will be provided by the Implementing Agent, in consultation with the Contractor, as the standard limited duration employment contract for use on the project.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

L1.6 LABOUR MOBILISATION & DEMOBILISATION:

All Contractors must make adequate provision for mobilising (i.e. adequate time to enable recruitment / secondment approval in terms of L1.3, pre-employment medical assessments, inductions etc.) and demobilising (i.e. consultation, exit medical assessments etc.) of all personnel employed on the Project.

L2. INDUCTIONS:

All project personnel on site must attend a Project and a Site Induction presentation on a fully paid time basis, before commencing work on site. The Project Induction will be provided by the Project Labour Desk service provider.

The Site Induction shall be provided by the Contractor and shall include the Project overview, performance expectations and key labour management aspects including the general health, safety and environmental practices to be employed on the Project.

The Site Induction shall be provided for all construction personnel by the Contractor, prior to each individual commencing employment on site.

All Contractors and Service Providers employing personnel on the construction site must ensure that all appropriate life skills and in particular Health, Safety & Environmental awareness training specific to their construction activities is conducted prior to individual's work commencement, and during the course of employment on site.

Attendance registers of all personnel attending Site Induction and any subsequent awareness training must be retained on site for the duration of the construction project.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L3: Employ SITE Employment Relations PRACTITIONERS

L3.1 SITE EMPLOYMENT PRACTITIONER APPOINTMENT:

For the Main Contractor:

A full time, site-based, competent and suitably qualified Employment Relations (ER) Practitioner with the minimum of 3 (three) years construction site Employment Relations / Industrial Relations management experience must be employed by the Contractor as an employee, for the full duration of construction. On-site administrative support must be provided to the Site Employment Relations Practitioner.

This appointment must receive the prior approval of the Implementing Agent as per the ER-002 approval request form as provided by the Implementing Agent.

The Site Employment Relations Practitioner must have sufficient proven competency to positively impact HR management knowledge and experience to the Employment Relations Interns, in a mentor capacity.

For Sub-contractors and Service providers employing more than 50 persons on site:

A full time, site-based competent, suitably qualified and experienced Site Employment Relations Practitioner must be employed by the Sub-contractor / Service Provider employing in excess of 50 persons on site, for the full duration of the construction period when employing in excess of 50 persons on site; This appointment must receive the prior written approval of the Main Contractor;

For Sub-contractors and Service providers employing less than 50 persons on site:

A full time, site-based competent Supervisor with labour management experience and responsibility must be employed by the Sub-contractor / Service Provider on site, for the full duration of the construction period whilst employing less than 50 persons on site.

This appointment as the nominated person responsible for Employment Relations co-ordination of the sub-contractor's / service provider's on-site work team must receive the prior written approval of the Main Contractor.

The timing and quantum of the annual salary increases for the Site Employment Relations Practitioner, which must be effected at intervals of no more than 12 months, shall be in accordance with the arrangement within the employer company, yet may not be less than the latest available year-on-year Headline Consumer Price Index (CPI) as issued by Statistics South Africa at the time of the salary increase.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

The Contractor must tender accordingly and also ensure this provision is included in the pre-tender documentation of all on-site subcontractors and all on-site service providers.

Deliverable L4: Employment of the Community Liaison Officer

L4.1 COMMUNITY LIAISON OFFICER APPOINTMENT:

Immediately prior to site establishment, the Main Contractor must employ the services of a Community Liaison Officer (CLO) on a full-time basis for the full duration of the construction contract, through a recruitment process facilitated by the Implementing Agent.

The shortlisting of appropriate CLO candidates should require guidance of the Project Support Committee, yet the Contractor shall make the final selection decision after receiving the prior written CLO appointment approval of the Implementing Agent.

The CLO shall receive a basic rate of pay not less than **R9 585.00** (Nine Thousand five hundred and eighty five) per month. All statutory contributions such as UIF, Skills Development Levy, Workmen's Compensation etc. are excluded from this amount. A provision of 27% is made to cover these items. In addition, a year-end 13th cheque must be provided for.

Annual increases in basic rates of pay shall be provided on the anniversary of the employment with the Contractor and shall align to the provisions for increments as provided in L1.4 above.

The Main Contractor shall provide the necessary tools of the trade for the CLO to operate effectively. This will include a standard cell phone, office space and all reasonable furniture and equipment, including controlled access to an internet connected computer, scanner and printer.

If, in the event that the Contractor terminates the CLO's contract of employment (limited to proven misconduct / poor performance which would normally result in fair termination), the Main Contractor is required to urgently employ a suitably competent and experienced CLO, within a four-week period, on a full-time basis for the remaining duration of the Project.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L5: Provide Training and Development interventions to achieve full compliance to the cidb Contract Skills Development Goal (CSDG)

The contractor shall achieve the CSDG (per Government Gazette No. 48491 of 28 April 2026 by providing opportunities to learners requiring structured workplace learning, in order for the contractor to comply to the requirements of the cidb B.U.I.L.D. programme, by using CSDG Method 1 (mandatory) and CSDG Method 4 and any one or a combination of CSDG Method 2 or CSDG Method 3.

The main contractor shall submit to the Implementing Agent, within 30 days of the contract coming into effect, or the issuing of an order, a contract compliance baseline training plan taking into account the skills mix and type of workers to be engaged.

The main contractor shall also submit to the Implementing Agent, monthly CSDG compliance training reports, as well as a final CSDG compliance training report within 15 days of reaching practical completion.

L5.1 The main contractor shall ensure the provision of structured workplace learning opportunities that result in the attainment of a part or a full occupational qualification. (CSDG Method 1)

L5.2. The main contractor may opt to provide structured workplace learning opportunities for apprentices and/or other artisan learners towards the attainment of a trade qualification in the Built environment, with at least 60% of the Artisan Learners being holders of public TVET college qualifications. (CSDG Method 2)

L5.3. The main contractor may opt to provide work integrated learning opportunities for University of Technology or Comprehensive University students completing their National Diplomas. (CSDG Method 3)

L5.4. The main contractor shall ensure the provision of structured workplace learning for built environment profession candidates towards professional registration by a statutory council. (CSDG Method 4)

The selection and placement of appropriate trainees/ learners/ candidates shall be in line with the Target Areas identified above. The initial search shall be made from the Project Job Seekers' Database managed by the Implementing Agent.

L5.4.1 CANDIDATE PROFESSIONALS

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Within one (1) month of contract award, the Main Contractor shall employ one (1) Candidate Professionals for fifteen (15) months duration. In total, the Main Contractor shall employ and provide meaningful experiential working opportunities on site to the minimum of 1 Candidate Professionals for fifteen (15) months each.

For Candidate Professionals, the objective is to assist this candidate professional in obtaining their professional registration with the appropriate professional body during the course of the 18 months' experiential opportunity.

The Candidate Professional will be paid a monthly stipend of R13 000.00 (Fifteen thousand Rand) per month by the Main Contractor. All statutory contributions such as UIF, Skills Development Levy, Workmen's Compensation etc. are excluded from this amount. A provision of 27% is made to cover these items.

Annual increases in basic rates of pay shall be provided on the anniversary of the employment with the Contractor and shall align to the provisions for increments as provided in L1.4 above.

The stipend costs and other associated costs including professional registration, the provision of the necessary tools of the trade to learn and operate effectively. This will include office space and all reasonable furniture and equipment, including controlled access to an internet connected computer and shall be for the Main Contractor's account. The Main Contractor must tender accordingly and should be clearly stipulated in the tender submission.

If, in the event of the termination of a Candidate Professional for whatsoever reason, the Main Contractor is required to urgently employ a replacement Candidate Professional in the same discipline, within a four-week period, with the exception of no replacement required should a Candidate Professional resign / abscond within the last two months prior to Practical Completion.

Deliverable L6: provide HEALTH & SAFETY AWARENESS TRAINING

L6.1 GENERAL HEALTH & SAFETY AWARENESS TRAINING

The Main Contractor is to provide general health & safety awareness training to the entire workforce on site from commencement of construction, in accordance with the Occupational Health and Safety management protocols as prescribed by the Implementing Agent and the Construction Regulations pertaining to occupational health and safety.

L6.3 HIV/AIDS PREVENTION AWARENESS TRAINING

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

The Main Contractor is to provide HIV/AIDS prevention awareness training to the entire workforce on site from commencement of construction, in accordance with the Occupational Health and Safety management protocols as prescribed by the Implementing Agent and in accordance with general practice in the construction industry.

Deliverable L7: provide specific work readiness and life skills training for designated persons.

L7.1 WORK READINESS AND LIFE SKILLS TRAINING:

The Main contractor must ensure Work Readiness and Life Skills Training to benefit non-seconded local labour.

This training should preferably be conducted prior to labour commencing work on site.

The following modules shall be covered as part of the work readiness and life skills training:

- First Aid Level 1 / SHE Reps – 5 people to be trained.

All training costs such as tuition, venue and trainee refreshments must be provided for. The Main Contractor shall pay for all costs associated with this training delivery.

The Main Contractor shall interact with the Implementing Agent's nominated labour management representative to agree upon a practical program, prior to concluding the written training programme proposal. The written proposal shall include detail of the proposed training provider's proven competency to ensure quality training outcomes.

Approval to commence with the Work Readiness and Life Skills training programmes shall be based on the submission of a written proposal made by the Main Contractor, for the approval decision of the Principal Agent and CDC Project Manager.

Within one (1) month of contract award, the Main Contractor shall appoint the service provider for the provision of Work Readiness and Life Skills training.

The Main contractor shall submit a detailed written report at the end of each calendar month to the Implementing Agent's nominated labour management representative on all Work Readiness and Life Skills training conducted during the past month. The report must be accompanied by corresponding attendance registers in the format prescribed by the Implementing Agent.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L8: Provide work opportunities to post graduate interns

L8.1 BUILT ENVIRONMENT INTERNSHIPS

Within 1 month of contract award, the Main Contractor shall employ 2 Built Environment Interns for 15 months duration. In total, the Main Contractor shall employ and provide meaningful experiential working opportunities on site to the minimum of 2 Built Environment Interns for 15 months each, for the construction period (i.e. 2 Interns in total).

The selection and placement of these appropriate candidates shall be in line with the Target Areas identified above. The initial search of appropriate candidates shall be made from the Project Job Seekers' Database managed by the Implementing Agent.

The Candidates must be from one of the construction disciplines as detailed immediately below, and preferably not be more than one candidate from each discipline, per enrolment:

- Building Management;
- Civil / Structural Engineer;
- Quantity Surveyor;
- Health & Safety Officer or
- Employment Relations Intern;

The designated persons will each be paid a monthly stipend of **R7 000.00** (Seven Thousand Rand) per month by the Main Contractor for candidates from TVET Colleges and for those from the University, shall be paid **R 9 000** (Nine Thousand Rand). All statutory contributions such as UIF, Skills Development Levy, Workmen's Compensation etc. are excluded from this amount. A provision of 27% is made to cover these items.

Annual increases in basic rates of pay shall be provided on the anniversary of the employment with the Contractor and shall align to the provisions for increments as provided in L1.4 above.

The stipend costs and other associated costs including the provision of the necessary tools of the trade to learn and operate effectively. This will include office space and all reasonable furniture and equipment, including

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

controlled access to an internet connected computer, scanner and printer shall be for the Main Contractor's account. The Main Contractor must tender accordingly and should be clearly stipulated in the tender submission.

If, in the event of the termination of an Intern for whatsoever reason, the Main Contractor is required to urgently employ a replacement Intern in the same discipline, within a four-week period, with the exception of no replacement required should an Intern resign / abscond within the last two months prior to Practical Completion.

L8.2 PROVISION IN-SERVICE TRAINING TO TVET COLLEGE LEARNERS

The managing contractor shall allow for an in-service training intervention to learners based in the nearby TVET colleges in order to fulfil their academic requirements, the number & trades shall be determined by the amount of work and the scope of the contract.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L9: Provide SEMI-SKILLED TRAINING AND experiential work opportunities towards trade competencies for designated persons

L9.1 TECHNICAL TRAINING:

The Main Contractor must include in the tender a provision for accredited Technical Training to benefit non-seconded local labour.

The following SETA accredited courses are targeted:

COURSE	DURATION (days)	CANDIDATES
(a) Carpentry	30	6
(b) Painting	30	6
	60 (Days)	12
(c) Personal Protective Clothing		12
(d) Learner Stipends: Technical Training Days R90 x 12 x 60 days = R 64 800		
(e) Venue (the contractor shall conduct the training on a rent free facility)		
(f) Provision of the Personal Protective Clothing of the learners		
TOTAL	R 298 800.00 (Excl PPE.)	

A learner stipend of R90.00 per person per learning day must be paid to all trainees, should the trainee not be receiving a wage.

Within one (1) month of contract award, the Main Contractor shall appoint the training service provider(s) for the provision of technical training on the project.

The Contractors shall employ on site, every learner who participated in this training, after the individual's successful completion of such training.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

The employment duration shall be for the balance of construction duration for that trade. The employment must be aligned to their practical experiential requirement to enhance their competency in the trained area.

The Main Contractor shall pay for all this technical training, inclusive of training provider fees and learner stipends, as detailed above.

The Main Contractor shall interact with the Implementing Agent's nominated labour management representative to agree upon a practical program, prior to commencement, inclusive of candidate recruitment, in order to deliver the Technical Training deliverable.

Approval to commence with the Technical training programme shall be based on the submission of a written proposal made by the Main Contractor, for the approval decision of the Principal Agent and CDC Project Manager. The written proposal shall include detail of the proposed training provider, together with evidence of their capacity to ensure accredited quality training.

The Main Contractor shall submit a detailed written report at the end of each calendar month, on all Technical training conducted during the past month, to the Implementing Agent's nominated labour management representative. The report must be accompanied by corresponding attendance registers in the format prescribed by the Implementing Agent.

Deliverable L10: ACCOMMODATION FOR NON-LOCAL CONSTRUCTION PERSONNEL

The Main Contractor shall mitigate the negative impact on the local community by the approved non-local seconded personnel, by providing an appropriate accommodation solution to the Implementing Agent, prior to construction commencement. The Implementing Agent shall determine the appropriateness of the accommodation solution provided by the Main Contractor.

Deliverable L11: Community participation / ENGAGEMENT

The Main Contractor shall actively participate in all community engagement activities through the established Project Support Committee (PSC).

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Deliverable L12: On-Site communication structures

The Main Contractor shall be responsible for facilitating all on-site communication with role-players. A Labour Consultative Forum (LCF) will be established on site at which labour and work-place related issues will be addressed. The LCF will be attended by the Main Contractor senior site manager and the Site ER Practitioners, all on-site sub-contractors' representatives and on-site service providers' representatives and elected representatives from the labour on site.

The LCF will be established within one (1) month of construction commencement and will meet monthly thereafter.

The Main Contractor shall tender accordingly.

Deliverable L13: MAIN CONTRACTOR ENSURING FULL COMPLIANCE

Main Contractor must ensure the achievement of all socio-economic deliverables and full compliance to the established labour management protocols on the whole project (inclusive of all subcontractors), for the full duration of the project;

The Implementing Agent shall deploy a part-time Employment Relations Compliance Auditor to monitor and audit adherence to the construction labour management protocols, including better construction labour management practices, compliance to prevailing labour legislation and the socio-economic specifications prescribed herein above.

The Labour Management Compliance Audit template shall be made available to the Main Contractor, prior to site establishment, by the Implementing Agent's nominated labour management representative.

The compliance audits will confirm the extent to which all contractors comply with the established construction labour management protocols and better labour management practices, as well as the extent of achievement of the socio-economic deliverables.

ANNEXURE C

COEGA DEVELOPMENT CORPORATION (PTY) LTD

PEPH - Completion of Cathlab & CSSD FACILITIES, NELSON MANDELA BAY METRO, EASTERN CAPE

CONTRACT NO. CDC/73/26

Every contractor is required to achieve full compliance to the established labour management protocols (i.e. a demerit score of zero using the audit template) within one (1) month (defined as twenty (20) working days) of the non-compliance/s being highlighted.

In the event of the Main Contractor or any sub-contractor (SMME's inclusive) or service provider not complying with the socio-economic specifications after the one (1) month period stated herein above, or failing to maintain the required socio-economic specification / labour management protocol thereafter, then a punitive penalty of R1 000 [One Thousand Rand (excl. VAT)] per day, per not compliant item will be paid by the Main Contractor, for each working day that each non-compliance item prevails, as determined solely by the Implementing Agent.

Such payment shall be in the form of a deduction of the full penalty incurred during the preceding month, off payments due to the Main Contractor, and shall be credited to the project contingency fund.

COMPLETION OF THE CATHLAB AND CSSD FACILITIES (CDC/73/26)

CONSTRUCTION JOBS FORECAST SCHEDULE

(i.e. the anticipated number of workers per Job Title across the entire project for the full construction period, inclusive of all on-site sub-contractors and all on-site service-providers)

Occupational Group	Job Title	Total Labour (Seconded and Local)
General Worker	General Worker	
Artisan Aid	Artisan Aid	
Construction Hand Grade IV	Structures Construction Hand	
	Premix Paving Checker	
	Steel Bending Machine Operator	
	Civil Construction Bricklayer Grade II	
Operator Grade V	Boom Scraper Operator	
	Pedestrian Roller Operator	
	Piling Auger Machine Operator	
Checker	Checker	
Chainman	Chainman	
Other(s)		
Construction Hand Grade III	Shutter hand Grade III	
	Concrete Hand Grade II	
Operator Grade IV	Track Rig Operator (general)	
	Bore Pile Operator	
	Continuous Flight Auger Operator	
	Drilling Supervisor	
Site Support	Junior Clerk	
Other(s)		

Occupational Group	Job Title	Total Labour (Seconded and Local)
Construction Hand Grade II	Shutter hand Grade II	
	Reinforcing Hand Grade II	
	Concrete Hand Grade I	
	Fence Erector	
	Guard Rail Erector	
Operator Grade III	Concrete Mixer Operator	
	Batch Plant Operator	
	Concrete Dumper Operator	
	Concrete Pump Operator	
	Tower Crane Operator	
	General Premix Roller Operator	
	Milling Machine Operator	
	Paver Operator	
	Excavator Operator	
	Front End Loader Operator	
	TLB Operator	
	Dozer Operator	
	Grader Operator (general)	
	Gunite Nozzle person	
Driver Grade II	Motorcycle Driver	
	Tractor Driver	
	Light Motor Vehicle Driver	
	Driver Operator	
	Heavy Duty Driver (rigid)	
	Extra Heavy Duty Driver (rigid)	
Site Support	Material Tester	
Building Skills	Semi-skilled	
	Light Motor vehicle driver	
	Hoist Operator	
	Driver (Code 9)	
Other(s)		

Occupational Group	Job Title	Total Labour (Seconded and Local)
Construction Hand Grade 1	Shutter hand Grade I	
	Reinforcing Hand Grade I	
	Pipe layer Grade I	
	Kerb layer Grade I	
	Civil Construction Bricklayer Grade I	
Operator Grade II	Mobile Crane Operator	
	Screed Operator	
	Scraper Operator	
Driver Grade I	Heavy Duty Driver (articulated)	
	Extra Heavy Duty Driver (articulated)	
Site Support	Assistant surveyor	
Building skills	Journeyman's assistant	
	Heavy Duty driver (Code 10)	
	Crane Operator	
	Machine Minder and Sawyer	
	Mechanical Handling Equipment Driver	
Electrical Construction	Electrical Construction Operator	
Other(s)		
Building Skills	Artisan/Journeyman	
Electrical Construction	Electrical Tester for single phase	
	Artisan Unlicensed	
Operator Grade I	Grader Operator (final level)	
Building Skills	Artisan journeyman with N2	
Electrical Construction	Installation Electrician	
	Supervisor Grade II; Plant Serviceman	
Other(s)		
Electrical Construction	Master Installation Electrician	
	Supervisor Grade I	
Other(s)		
Artisan	Diesel Mechanic, Fitter & Turner, Auto Electrician, Boilermaker, Welder	
	Other(s):	
TOTAL LABOUR:		
Refer: Socio-Economic specification L1.2 (Note the contractual minimum employment number)		

COMPLETION OF THE CATHLAB AND CSSD FACILITIES PROJECT – CDC/73/26

BUILDING INUDSTRY JOB & WAGE SCHEDULE

Task Grade	Job Title	Minimum basic wage rate (per hour)
Construction Worker Grade E	General Worker	
Construction Worker Grade D	Semi-skilled Construction Worker Hoist Operator	
	Driver (code 8) Driver (code 9)	
Construction Worker Grade C	Artisan / Journeyman’s Assistant Driver (code 10) Crane Operator Machine Minder and Sawyer Mechanical Handling Equipment Driver	
Construction Worker Grade B	Artisan / Journeyman	
Construction Worker Grade A	Artisan / Journeyman with minimum N2	

Whilst this schedule provides for minimum wage rates, the contractor should effect standard wage rates per job function wherever possible, across the entire project, sub-contractors inclusive.

The above wage rates to be increased annually, the timing and quantum shall be in accordance with the prevailing arrangement in the industry, yet may not be less than the latest available year-on-year CPI (inflation rate).

(Refer Socio-Economic specification L1.4)

C5.5 ANNEXURE E: SMME SPECIFICATION



SMME SPECIFICATION

SMME UNIT

04 June 2026



DOCUMENT INFORMATION SHEET

Title of Document : SMME SPECIFICATION
Type of Document : SPECIFICATION FOR THE EMPLOYMENT OF
SMME SUB-CONTRACTORS
Document Number : SES 003 -2026
Prepared by : SMME UNIT TECHNICAL TEAM
Typed by : Bernice Brefo
Business Unit : SMME UNIT
Prepared for : CDC SEZ AND EXTERNAL PROGRAMMES
Date of Issue : 04 June 2026

Copyright

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

DOCUMENT CONTROL SHEET

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

PROJECT NAME : COEGA INDUSTRIAL DEVELOPMENT SEZ AND EXTERNAL PROGRAMMES

DOCUMENT TITLE : SPECIFICATION FOR THE EMPLOYMENT OF SMME SUB-CONTRACTORS

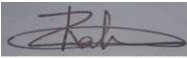
DOCUMENT No. : SES 003 - 2026

SIGNING OF THE ORIGINAL DOCUMENT

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

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 2013	Name: Thandile Jack	Name: Christo Beukes	Name: Sicelo Kubashe
	Signature:	Signature:	Signature:

Revision	Prepared by	Reviewed by	Approved by
Date: July 2013	Name: Lamla Fihla	Name: Ziyanda Kaleni	Name: Sicelo Kubashe
	Signature:	Signature:	Signature:
Date: March 2014	Name: Lamla Fihla	Name: Moroke Nteene	Name: Andile Ntloko
	Signature:	Signature:	Signature:
Date: March 2015	Name: Lamla Fihla	Name: Christo Beukes	Name: Andile Ntloko
	Signature:	Signature:	Signature:

REVISION	Name: Bernice Brefo (Team Leader)	Name: Ziyanda Kaleni	Name: Unathi Maholwana
Date: 04 June 2026	Signature: Digitally Signed by: Bernice Brefo SMME Technical Manager 24a9f806-9356-4e37-b645-46dd37e3484b IP Address: 10.0.30.60 Date: 2026/06/04 9:59:43 AM 2026-06-04 09:59:43	Signature:  Ziyanda Kaleni-Mnyande a9a75d81-a080-47b0-8d4f-a3009c68a966 2026/06/04 11:16:21 2026-06-04 11:16:21	Signature: Digitally Signed by: Unathi Maholwana Programme Manager 6950c9ae-5b0b-4ed1-80fc-26d0b7a22f33 IP Address: 10.0.99.131 Date: 2026/06/04 11:48:09 AM 2026-06-04 11:48:09

Distribution:	CDC
---------------	-----

SMME SPECIFICATION

TABLE OF CONTENTS

ACRONYMS	7
D1 INTRODUCTION	8
D2 APPLICABLE DOCUMENTATION.....	8
D3 APPLICABLE FORMS	8
D4. THE SCOPE	9
D5. THE DEFINITIONS AND INTERPRETATIONS	9
D6. EMPLOYMENT OF SMMES.....	10
D7 IDENTIFICATION OF SMME'S TO PARTICIPATE AS SMME SUBCONTRACTORS	13
D8. IDENTIFICATION OF WORK TO BE PERFORMED BY SMME'S.....	13
D9. TENDER PROCESS FOR SMME'S	14
D10. TERMS AND CONDITIONS OF SUBCONTRACT AGREEMENTS	17
D11. CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED SMMES	18
D12. PRINCIPAL CONTRACTOR'S DUTIES UPON COMPLETION OF EACH SMME PACKAGE	27
D13. CONTRACTOR'S LIABILITY	27
D14. PERFORMANCE GUARANTEE	28

D16.	MEASUREMENT AND PAYMENT	28
D17.	SUBCONTRACTING BY SUBCONTRACTORS	29
D18	JOINT VENTURING & CONSORTIUM.....	29
D19	REPEAT APPOINTMENTS	29

ACRONYMS

CDC	=	Coega Development Corporation (Pty) Ltd
CIDB	=	Construction Industry Development Board
EM	=	Executive Manager (CDC)
EMEs	=	Exempted Micro Entreprises
FIDIC	=	Fédération Internationale Des Ingénieurs-Conseils
GCC	=	General Conditions of Contract
IP	=	Implementing Agent
JBCC	=	Joint Building Contracts Committee Building Agreement
MT	=	Management Team
NEC	=	New Engineering Contract
PA	=	Principal Agent
PrDir	=	Programme Director (CDC)
PrMn	=	Programme Manager (CDC)
PM	=	Project Manager (CDC)
QSEs	=	Qualifying Small Enterprises
SARS	=	South African Receiver of Revenue
SCM	=	SMME Construction Mentor
SES	=	Specification for Employment of SMME sub-contractors
SMEs	=	Small and Medium Enterprises
SMME	=	Small, Medium and Micro Enterprise
SOT	=	SMME Operation Template

D1 INTRODUCTION

This document contains the specification that governs the procurement of SMMEs as Sub-Contractors on CDC projects. It is one of the methods that are implemented to enhance the development of SMMEs by CDC. This document is binding to the Principal Contractor and is designed for the execution of CDC projects.

D2 APPLICABLE DOCUMENTATION

This Specification is to be read together with following applicable documents:

- (a) Any applicable form of contract used between the Principal Contractor and CDC (JBCC, NEC, GCC and FIDIC)
- (b) Tender Document for the appointment of the Principal Contractor;
- (c) Preferential Procurement Policy Framework Act (PPPFA);
- (d) CDC's SMME Policy;
- (e) CDC's Procurement Policy & Procedure; and
- (f) CIDB's Code of Conduct for all parties engaged in construction procurement.
- (g) The CIDB NCDP framework Practice Note 29: Allocating Sustainable Work Opportunities to Contractor Development Programmes
- (h) CIDB Regulations
- (i) CIDB Inform Practice Note 32 (Application of potential emerging status)

D3 APPLICABLE FORMS

These forms are applicable for implementation of this Specification:

Procurement/ Phase 1

- (a) **SMME 003** SMME Packages Schedule
- (b) **SMME 004** SMME Request Form

Monthly Reporting/Phase 2

- (c) **SMME 005** SMME Manager Monthly Report – SMME SED

Close Out/Phase 3

- (d) **SMME 006** SMME Certificate of Experience

D4. THE SCOPE

This specification governs the procurement of SMME subcontractors on all CDC Projects.

D5. THE DEFINITIONS AND INTERPRETATIONS

For the purposes of this of the Specification, the definitions given in the relevant form of contract used either between the Principal Contractor and the CDC or the Principal Contractor and SMME, other project specifications, together with the following additional definitions shall apply:

“Agreement”: Shall have the meaning assigned thereto in the relevant form of contract;

“Contract Value”: A monetary value that initially is equal to the contract sum that is subject to adjustment;

“Direct Contractor”: A party appointed directly by the employer to do specialist work on site prior to practical completion;

“Domestic Subcontractor”: are specialists and other subcontractors executing work or supplying and fixing any goods and who are selected by the contractor;

“Nominated Subcontractor”: are specialist and other subcontractors executing work or supplying and fixing any goods who may be nominated by the Principal Consultant

“Management Team (MT)”: A team that is set up for the contract by the CDC Project Manager, consisting of the Principal Contractor, the Project Quantity Surveyor, the Engineer/Principal Agent, a delegated person from the CDC SMME Unit (PM/PrM, Procurement Representative and Technical Manager) and CDC Project Manager. The function of the MT will be to consult regarding the management of the subcontracts involving SMMEs. The MT will also evaluate the Principal Contractor’s performance regarding the goals set for SMME involvements. The CDC Project Manager and the CDC SMME UNIT representative are to decide on the party to chair and lead the MT. Proper minutes of these meetings will be taken by the Principal Agent;

“Selected Subcontractor”: are specialists and other subcontractors executing work or supplying and fixing any goods who may be selected by the contractor in consultation with the Principal Consultant;

“SMME Unit”: Supporting structure provided by the CDC to monitor the procurement and work of SMMEs and provide limited mentoring (business management) services directly to SMME’s;

SMME Construction Mentor: Person/support priced for in the project budget by the Principal Contractor, administered through the Principal Contractor to guide, assist and mentor all eligible potential SMMEs tendering and awarded a contract as SMME Subcontractors as per section D of this Specification;

Small, Medium and Micro Enterprises: A business concern operating in any business sector and which complies with the qualitative and quantitative criteria outlined in the Schedule contained in the National Small Business Act (Act No. 102 of 1996), providing a Commercially Useful Function as provided in the CDC Procurement Procedures policy;

“Specification” means this document containing the CDC’s specifications for the utilisation of SMMEs on all CDC projects;

Sub-contractor: A contractor who is subcontracted with the Principal Contractor to provide works as part of the total services required by the CDC for that Contract;

SMME Work Allocation: Specified work identified for execution by SMMEs. The identifiers are CDC, Principal Contractor and the PSP;

Training: The process of providing an SMME Contractor with theoretical and practical work allocation specific education as agreed to by the Principal Agent and Contractor;

Guidance: The process of advising an SMME Contractor, in writing regarding the appropriate execution of work bundles in part or whole;

Monitor: To check, correct and oversee the orderly and appropriate execution of the works, as well as the overall assessment of all aspects of the SMME development programme

D6. EMPLOYMENT OF SMMEs

D6.1 SMME Targets

Thirty Six Percent (36%) of the tender value (excluding socio-economic value, escalation, contingency, EPWP allowance (if applicable), and **Value-Added Tax (VAT)**) must be executed by SMMEs. Ten percent (10%) of the committed percentage will be earmarked for designated groups i.e. Women-owned businesses, Youth-owned businesses, Rural/township-based businesses, Military veteran-owned businesses (requisite Military Number confirmed by the Department of Military Veterans), and people living with disabilities(a letter of confirmation from a medical professional is required). It becomes compulsory for the Principal Contractor to achieve this target once committed. The Principal Contractor’s performance against this target will be monitored

monthly through the submission of the mandatory SMME Manager's Monthly Report through monthly form submission (SMME 005).

D6.2 Definition of SMME

A **SMME** is defined as follows:

- (a) A targeted enterprise;
- (b) A business concern operating in any business sector and which complies with the qualitative and quantitative criteria outlined in the Schedule contained in the National Small Business Act (Act No. 102 of 1996);
- (c) An entity which must have an active registration status with the **CIDB**, targeted CIDB Grade designations 1 to 6;
- (d) An entity which must be at least 51% black-owned and managed, **and**
- (e) A local entity. Depending on where the site of the CDC project is located, then locality will be judged on a sliding scale, with the **immediate local municipality preferred, followed by the district municipality and then the Province in which the project is located.** .

D6.3 Targeted SMME Participation

The Principal Contractor's SMME participation goal is to be achieved by employing entities in the following categories:

- (a) Built Environment Works; and
- (b) Specialist service providers (e.g. Mechanical, HVAC, Structural Steel, Electrical etc.).

For Built Environment Works, the below mentioned goals are to be achieved:

Description	Thirty Percent Participation target Split	Five SMME Targeted Enterprise
Built Environment Works	36%	EME's - Must be at least 51% black-owned and managed. 10% of the 36% will be set aside for designated groups (Women-owned businesses, Youth-owned businesses, Rural/township-based businesses, Military veteran-owned businesses (requisite Military Number confirmed by the Department of Military Veterans), and people living with disabilities (a letter of confirmation from a medical professional is required)).
TOTAL	36.00 %	

D6.4 Contracting Process

After the Award of the Contract, the Principal Contractor will have to start the process as stipulated in this Specification for the involvement of SMMEs to achieve its tendered SMME Participation Goal. This contracting process for subcontracting SMMEs must be completed in accordance with the detailed construction programme of the Principal Contractor for the various works as to ensure momentum of the contract works at all times. The Principal Contractor shall take due cognisance to also programme this SMME contracting process in its detailed construction programme.

- (a) The Principal Contractor must undertake the following tasks in approximately the order given below:
 - (i) Complete and submit the schedule of work(s) to be performed by SMME(s) using form **SMME 003A and B** (attached under [Appendix A](#)) which is to be directly submitted to the SMME Unit by the SMME Construction Mentor when the Principal Contractor submits the detailed construction programme as per the letter of appointment or award.
 - (ii) Start and complete the tender or quotation process in consultation with the MT.
 - (iii) Submit to the SMME Unit the subcontract agreement for review before signing with the SMME.
 - (iv) Sign a subcontract agreement for each work activity with the successful SMMEs;
 - (v) Mentor and monitor the SMME Subcontractors and their work output and quality;
 - (vi) Issue a Certificate of Experience to each Subcontractor;
 - (vii) Go through the tender and appointment phase for replacement SMMEs in the event of termination of an SMME Subcontractor due to failure by them to perform.
- (b) Before the SMME tender phase, the Principal Contractor in consultation with the SMME Unit, shall be responsible for identifying:
 - (i) the scope and extent of the works to be included in any particular SMME subcontract
 - (ii) the total number of subcontracts to be used;
 - (iii) the time at which subcontracts will be used; and
 - (iv) the duration of the subcontract;
- (c) in such a manner as will facilitate the achievement of all objectives and principles pertaining to SMMEs use and development as are stated in or as may reasonably be inferred from the conditions of this Specification, due cognisance being taken of:
 - (i) the training and assistance to be provided to the SMMEs in terms of this Specification;
 - (ii) the period allowed in the Appendix to Tender for completion of the contract works in accordance the approved detailed programme of works

- (iii) all constraints and conditions contained in this Specifications, as may impact upon the subcontract.

D7 IDENTIFICATION OF SMME's TO PARTICIPATE AS SMME SUBCONTRACTORS

As an on-going process, the CDC has established a database for all interested businesses to register their interest to work in CDC projects using form available from the CDC's SMME Unit offices or the CDC's website. The CDC then encourages all interested businesses to be assessed and graded according to their sector/industry, specialisation and capabilities through the CIDB. The SMME Unit can assist SMMEs during this process. SMMEs that are in the grading process are graded and captured in CDC's special database called the SMME Supply Pool which supplies the SMMEs to service providers that are looking to employ SMMEs in CDC projects. SMMEs will also be encouraged to keep updating their data (grades and contact details) on this database using form which is available on request from the SMME Unit offices.

The Principal Contractor shall employ SMME subcontractors to the extent specified in the tender Goal Declaration under functionality, or as negotiated with the CDC upon award. The participation level is determined relative to the value of the Accepted Contract Amount, or as adjusted, excluding Contingencies, Contract Price Adjustment Provisions, socio-economic deliverables and Value Added Tax.

- D7.1** The Principal Contractor must request a list of SMMEs from the SMME Unit Office using form **SMME 003 and 004** attached as **Appendix B**.
- D7.2** Within two working days, the SMME Unit will forward the list of SMMEs with their contact person, numbers, and CIDB grades. The Principal Contractor will only invite SMMEs on the list. Any problems encountered during invitation should be reported back to the SMME Unit or the MT before the Site Inspection Meeting (sometimes referred to as the Mandatory meeting).

D8. IDENTIFICATION OF WORK TO BE PERFORMED BY SMME's

D8.1 Tender Stage

The tenderers must, during the tendering stage identify works in accordance with the functionality criteria that can be performed by SMMEs in order to achieve the SMME Participation Goal.

D8.2 Construction Stage

During Construction phase, the Principal Contractor or CDC may identify additional work to be performed by SMMEs above those committed to under functionality. This additional work will also follow the same specification in terms of scheduling and procuring SMMEs for such work.

The Principal Contractor will note that all work measured in the Bills of Quantities is the Principal Contractor's sole responsibility.

The SMMEs will be responsible for procuring all required materials, labour, equipment and any other incidentals to undertake the works subcontracted to them unless otherwise specified by the CDC before tender or approved by the MT during construction.

The Principal Contractor will mentor, supervise and manage the SMME work at all times to ensure compliance with the specifications and drawings. The Principal Contractor shall provide support for SMME contract administration and shall ensure that SMME monthly reports are reviewed, collated and verified by the Principal Contractor before onward submission to the CDC SMME Unit.

D9. TENDER PROCESS FOR SMME's

The tendered SMME Packages Schedule must be registered in form **SMME 003** where after the Principal Contractor will start with procurement of SMMEs to partake in the tendering or quotation process.

SMMEs sourced through a competitive process in conjunction with the SMME Unit and the MT shall not be considered as Nominated Subcontractors unless specifically directed by the CDC.

The following process must be followed by the Principal Contractor unless agreed otherwise with the MT:

D9.1 Tender invitation

A minimum of 6 (six) SMMEs are to be invited for each subcontract to be performed by SMMEs. The Principal Contractor will request the SMME list from SMME Unit using SMME 003 and 004 forms.

The CDC database of registered enterprises is to be used to solicit tenders. Any other SMME(s) that are not registered (or have applied to be registered) on this database will not be eligible for work.

D9.2 Compilation and issue of tender documents

The Principal Contractor shall compile the tender documents (Brief Description, TGP Spec (CRS Number, Original Tax Clearance Certificate, BBBEE Certificate), Contract Wage Schedule —of the Principal Contractor, Contract data, Bill of Quantities, Specification and drawings) in such a manner that it will facilitate the achievement of all objectives and principles pertaining to SMMEs use and development as stated in or as may reasonably be inferred from the conditions of this Specification.

All tender documentation shall be issued by the Principal Contractor with all copies of tender documents compiled for the various SMME work packages. The tender or quotation document will be issued to invited SMMEs at NO EXTRA COST and the Principal Contractor is to make due allowance for this cost in its tender price.

D9.3 Facilitate a Mandatory Briefing Session

The Principal Contractor shall facilitate a briefing session for the invited SMMEs. The Principal Contractor will also make sure that all relevant parties' representative of the Principal Agent or Engineer, SMME Unit, CDC Project Manager and Principal Contractor's Occupational Health and Safety Project Manager are present and given an opportunity to present specific aspects of the CDC requirements pertaining to their sections.

D9.4 Assistance to the SMMEs

- (a) The Principal Contractor shall be responsible for ensuring that prospective SMME tenderers fully comprehend the:
 - (i) Implications of the liabilities and responsibilities inherent in the particular basic level of subcontract applicable;
 - (ii) Implications of the tendered rates;
 - (iii) Scope and extent of the portion of the works included in the subcontract;
 - (iv) Proper procedures for the submission of the tenders;
 - (v) Procedures and basis on which tenders will be adjudicated and the subcontracts awarded.
- (b) The Principal Contractor shall, in addition to the requirements of the relevant sub clause of the applicable form of contract, teach, guide, assist and mentor all eligible SMMEs wishing to submit tenders, in the proper completion and submission of their particular tenders, provided always that such assistance, guidance and mentoring by the Principal Contractor shall:

- (i) be given at a level and to the extent which is commensurate with the particular basic level of subcontract applicable, due cognisance being taken of the capability which could reasonably be expected of potential SMMEs eligible to submit tenders for the particular level of subcontract applicable;
- (ii) be given in a manner which is neither prescriptive, dictatorial, nor coercive towards the party wishing to submit the tender;
- (iii) be given in a manner which does not unfairly prejudice or favour any particular eligible party wishing to submit a tender,

All with the view to enabling all interested SMMEs to submit valid, balanced, rational tenders.

D9.5 Adjudication

- (a) The Principal Contractor shall receive all tenders at the construction site location identified by it with all sealed tender submissions to be placed in a proper tender box to be provided by the Principal Contractor for this purpose. A submission register is to be maintained by the Principal Contractor for all tenders received.
- (b) All tenders received shall be evaluated by the Principal Contractor and MT for final approval. The draft tender evaluation must be sent to the MT members 2 working days prior to the MT meeting for comments and perusal in order to finalize the evaluation before the meeting. The format of the tender valuation must be acceptable to the MT and be agreed upon at the first MT meeting.
- (c) The SMME Unit shall have the right to interview any tenderer for the purpose of:
 - (i) clarifying any aspect of the tender;
 - (ii) verifying the eligibility of the tenderer;
 - (iii) conduct a rate breakdown exercise to clarifying rates and prices
- (d) The Principal Contractor shall provide all reasonable opportunity to such tenderers who have been interviewed, to correct obvious and patent errors, provided always that this can be achieved without altering the total tendered sum.
- (e) After the award, the CDC reserves the right to review the transparency of the Principal Contractor's SMME subcontracting and award process.

D9.6 Award of Tenders

The Principal Contractor shall explain his evaluation process of adjudication to the MT for endorsement. All enquiries about the process thereafter will be referred to the SMME Unit Offices.

The Principal Contractor will appoint the work to the successful SMME tenderer where after a subcontract agreement will be signed between the Principal Contractor and the successful SMME tenderer.

It is assumed that the Principal Contractor has allowed adequate time in the construction programme for training of SMMEs and included such training costs for the non-accredited training deemed to be either included in the tendered rates or mark-up provision allowed for the various SMME work packages. the non-accredited training to be provided by a responsible, competent and qualified person/s of the Principal Contractor to each of the awarded SMMEs within five (5) days after award and ten (10) days before the commencement of the works package shall include but not limited to:

- ▶ (a) Compilation and maintenance of the Occupational Health, Safety and Environmental File and compliance with Construction Regulations by a CHS Officer (CHSO) registered with the South African Council for the Project Management Professions – 2 days,
- (b) Setting up and Maintaining Cash Flow, Construction Programme and Method Statement – 2 Days ,
- (c) Setting up and Maintaining Quality Management Plan and Risk Register – 1 Day,
- (d) Basic Conditions of Contract of the relevant contract and setting up short term contracts for labour as per the main contract – 2 Days,
- (e) Balancing of Bill of Quantities, Financial Control and Management – 2 Days,
- (f) Site Administration – Principal Contractor shall provide for each SMME a daily site diary, A4 triplicate book for recording site instructions and a measurement book, train to complete and update – 1 Day;
- (g) Technical Training - Interpretation of Technical Drawings, Setting Out and General -2 Days;
- (h) Weekly Report Writing – 1 Day;
- (i) Methods of Measuring Resource Productivity – 1 Day,
- (j) Measurement of Work Done, Interim Payment Certificate and Compilation – 1Day, and
- (k) Dispute Avoidance and Resolution Procedures – 1 Day.

The CDC Training Compliance Officer will be notified five (5) days prior the commencement of the non- accredited training. Proof of such training is to be recorded on SMME 009 and forwarded to the CDC SMME Unit for capturing & filing.

D10. TERMS AND CONDITIONS OF SUBCONTRACT AGREEMENTS

D10.1 Contractual Obligations

In accordance with the provisions of relevant clause of the form of contract being used and subject always to the further provisions of this Specification, the terms and conditions of each subcontract agreement shall be as mutually agreed in writing between the Principal Contractor and the SMME. Each subcontract agreement, which is entered into by the Principal Contractor in accordance with

the requirements of this Specification, shall contain terms and conditions, which assign the responsibilities and liabilities of the two parties to the subcontract.

The terms and conditions of the subcontract agreement shall further be such as to specifically ensure that the provisions of this Specification pertaining to:

- (a) the allowable sources from which workers may be drawn in terms of the contract;
- (b) the terms and conditions relating to the recruitment, employment and remuneration of workers engaged on the contract works; and
- (c) any training to be provided to the temporary workforce;

shall apply as is in respect of all workers engaged and employed by any SMME.

D10.2 Compilation

The Principal Contractor shall be responsible for the compilation of each subcontract agreement and ensuring that the terms and conditions are consistent with all requirements therefore as are specified in or reasonably to be inferred from the provisions of this Contract. All costs associated with the tender process including the conclusion of the agreement are for the Principal Contractor's account.

In addition, each subcontract agreement shall be subject to the approval of the SMME Unit, which approval shall be obtained by the Principal Contractor prior to entering into the subcontract.

The Principal Contractor may not enter into any subcontract that contains terms more onerous or disproportionate to the risks inherent in the main contract for the Principal Contractor. The Principal Contractor is required to use a standard form of subcontract and follow recommended practice contained in the CIDB Best Practice Guideline #D1 March 2004 Edition 1 of CIDB Document 1012, or as later amended, where not in conflict with this Specification.

D11. CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED SMMEs

The Principal Contractor shall on a fulltime basis closely mentor, manage and supervise all SMMEs and shall manage, guide and assist each SMME in all aspects of management, execution and completion of its subcontract. The Principal Contractor shall provide additional developmental support initiatives to Potential Emerging (PE) status SMME sub-contractors that are recommended for appointment. Such development support shall be determined by conducting a needs analysis and approved by the SMME Unit. The support by the Principal Contractor shall include, but not limited to:- Mentorship, Training, Financial management support, Management support in the improvement of performance and quality of work, and all other construction management services required. This shall typically include the on-site productivity planning and management of:

- (a) **Materials Management:** This includes, assisting the SMME Sub-contractors in planning their material's requirements per stage, ordering the correct materials, preventing over usage (wastage) and under usage of required materials and ensuring that the Material's suppliers invoice the correct materials and ensuring the effective integration with the Materials supplier;
- (b) **Cost Management:** This includes, assisting the SMME Sub-contractors in invoicing correctly to the Principal Contractor, ensuring that the correct amount for the materials is reflected on the invoice and ensuring that all labour is invoiced and paid accordingly;
- (c) **Contract Management:** This includes hands-on practical effective construction contract management and administration to SMMEs to take them through step by step analysis of the entire project life cycle and contract administration tasks and equip them with the skills they need to determine risks associated with each stage of the life cycle. Use practical advice that will show them how to avoid problems and how to approach dispute resolution for optimum results;
- (d) **Health & Safety Management:** This includes training the SMME Sub-contractor in compiling the Occupational Health and Safety File, ensuring that the SMME Sub-contractors are compliant, in the form of PPE, Safety registers, updating of files and general site safety. The Principal Contractor will mentor and assist SMMEs on the induction of labour;
- (e) **Quality Management:** This includes, creating templates for quality management, to be approved by the Engineer/Principal Agent, and ensuring that the SMME Sub-contractors build to the required quality standards as per specifications;
- (f) **Communication Management:** This includes, attending all site meetings and the effective contract management between the Principal Contractor, CDC Project Manager/SMME Unit, Principal Agent, construction labour, materials supplier and the community; all site instructions to SMMEs should be written in the site instruction book. All SMMEs are to communicate through the SMME Construction Mentor on-site to the Main Contractor, failing which communication can be through the CDC SMME Unit and
- (g) **Handover Documentation Facilitation:** This includes, ensuring that all the necessary handover documentation is in place prior to the handing over of houses to the beneficiaries. These may include but not limited to NHBC requirements, Department's requirement etc.

The extent and level of such management, guidance and assistance, to be provided by the Principal Contractor shall be commensurate with the basic level of subcontract applicable and shall be directed at enabling the SMMEs to achieve the successful execution and completion of his subcontract. Payment for such on-going assistance is deemed included in the rate tendered for the administrative cost of SMMEs and or mark-up provision allowed for the various SMME work packages.

Such support and mentorship shall form part of the monthly reporting by the Principal Contractor to the SMME Unit and MT Meeting.

D11.1 Guide, Assist and Mentor SMMEs

(a) 1. SMME Construction Mentor for the SMME Subcontractors

The CV of the SMME Construction Mentor is to be submitted at tender stage together with those of proposed key personnel. The Principal Contractor shall, guide, assist and mentor all eligible potential SMMEs wishing to submit tenders, in the proper completion and submission of their particular tenders, including calculation and guidance on rates. The CV of the SMME Construction Mentor is to be reviewed and approved by the CDC SMME Unit.

The Principal Contractor will conduct a compulsory tendering training workshop, provide a venue, study material and allow a period of two (2) days (16 hours) for the training of the prospective SMMEs by a Senior Quantity Surveyor and/or Senior Estimator with ten (10) or more years' experience on Pricing Built Environment Tenders/Bids. Training will comprise but not limited of the following: Mandatory and Compliance requirements, Pricing in relation to the Contract Package Specification, Resource requirements, Completion of Tender Document, Wage Schedule and Occupational Health and Safety Requirements. All costs for providing these services are also deemed included into the tender price.

The Principal Contractor shall employ an SMME Construction Mentor, on a full-time basis, who must attend at site for the duration of the contract. The minimum requirements for this appointment are as follows:

- (a) An accredited National (Higher) Diploma and/or B-Tech/BSc qualification in the Built Environment field of study with a minimum of five (5) or more years' relevant post-graduate construction practical experience and experience in managing subcontractors;
- (b) have a minimum of five (5) or more years in the built environment and experience in the areas identified under D11 CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED SMMEs;
- (c) shall be registered with a professional body in the built environment as a professional and/or as a candidate;
- (d) the ability to transfer skills and assess an SMME's capabilities;
- (e) competence in construction contract administration and dispute resolution;
- (f) competence in commercial aspects of construction contracting; and
- (g) Competence in construction project management activities.

2. The Principal Contractor is to provide for the SMME Construction Mentor with the following:

- (a) Adequate office space fully equipped for him/her to conduct the management of SMMEs on the contract (office desk, chairs, whiteboard, cabinet for filing, etc.) a landline telephone and must be able to accommodate the CDC SMME Representative/s for the duration of the contract. The office must meet the following minimum standards external dimensions 6058 x 2438 x 2850 mm, elevated panels, two number plugs, 80 mm thermal insulation of walls, have air condition unit, PVC Windows 1800 x 1135 with roller shutter, PVC floor covering with increased resistance to abrasion +120 mm on the wall, steel door and standard raster lamp 4 x 18W;
- (b) all stationary as required and a laptop (Intel Core i3, 4 GB RAM, 250 GB hard drive, Wireless, Bluetooth (Built in, not dongle), DVD-RW drive, 15.4" display, USB Keyboard and Mouse, Carry bag, Additional charger, 3 year warranty, SABS Approved and the Principal Contractor is responsible to ensure that all power plugs are 3 prong connections) with all the required software for him/her to conduct his/her duties and internet connectivity to send and receive emails;
- (c) A digital camera of a 22.3 megapixel resolution coming from a full frame CMOS sensor. It also incorporates the DIGIC 5+ image process. The camera should have a 61-point AF module and a wide ISO range from 100 to 25,600, which is further expandable to 102,400. Must be able to add the time, date and geo-tagging to the photo metadata;
- (d) a copy of the contract document and a set of drawings (updated with the latest revision/s as and when issued) for the contract and a printer and/or photocopying machine (Standard functions - Copy, Email, Fax, Print, Scan; Print speed- up to 29 ppm; Connectivity- 10/100BaseT Ethernet, High-Speed USB 2.0, Wi-Fi b/g/n; Duty cycle - Up to 30,000 images/month; Maximum print resolution- 600 x 600 dpi (up to 4800 x 600 enhanced image quality); and
- (e) the soft and/or printed copy of the updated/latest revision of the detailed construction programme for the contract and complete plan of procuring SMMEs on the following forms SMME 003 and 004.

The SMME Construction Mentor will manage the SMMEs and report monthly on progress of each SMME to the MT using SMME 005 form. Such SMME Construction Mentor must be adequately experienced with SMME work(s) and the development thereof and will be subject to the approval of the CDC. The SMME Construction Mentor will render full-time on site assistance to and mentor the SMMEs and such assistance, guidance and mentoring by the Principal Contractor's SMME Construction Mentor shall:

- (i) be given at a level and to the extent which is commensurate with the particular basic level of subcontract applicable, due cognizance being taken of the capability which could reasonably be expected of potential SMMEs eligible to execute works for the particular level of subcontract applicable;
- (ii) be given in a manner which does not unfairly prejudice or favour any particular eligible party working on the same site;
- (iii) Identify the gaps in capacity of SMMEs and propose the required training and/or relevant intervention;
- (iv) where a training gap has been identified the SMME Construction Mentor together with the SMME Unit will arrange for the SMME to attend the required training and ensure that it does not delay the progress on site;
- (v) complete all the required SMME and Log Book Forms for each SMME Monthly;
- (vi) Adjudicate the SMME tenders and prepare the adjudication report;
- (vii) Present the Adjudication report to the MT;
- (viii) Assist the SMMEs in preparing Implementation plans for their packages and the required documentation to implement the package / project;
- (ix) Assist the SMMEs in measurements and preparation of payment certificates together with the Principal Contractors Quantity Surveyor on site;
- (x) Monitor the performance of emerging enterprises and update the logbook;
- (xi) Prepare the final payment certificates and certificate of experience for the SMMEs on completion of the awarded package; continuous monitoring of the quality of work of the SMME and providing support where required, taking measurements and samples on site to make sure that the SMME work and the materials meet the specifications and quality standards;
- (xii) negotiate and/or arrange for purchase of materials and payment terms on behalf of the SMMEs, no contra charges are to be applied and the SMME is to be invoiced for materials purchased and must have created value for money; and

- (xiii) maintain the program of the subcontract, ensure continuous monitoring and implementation of necessary interventions.
- (xiv) SMME mentor to advise each SMME of key personnel required on their work, how many labourers are required, what plant is required and at what stage. SMME mentor with the Site Manager set daily production targets for all SMMEs on site, to ensure that they complete their work on time and they are making profit. SMME mentor to invite each SMME Technical personnel with a director and do a daily costing calculation for them to see if they make money or not.
- (xv) Notify each SMME that is not reaching their daily production plan, request recovery plan or assist and advise them to create recovery plan. Also elaborate very early in the project the repercussions of them defaulting i.e., penalties or them losing their profits for prolonging their work.
- (xvi) The principal contractor and Project Manager through SMME mentor or SMME Manager must share any Variation Order occurred in the project and share that work with appointed SMMEs through SMME management processes to ensure fairness and transparency in the project.

The SMME Construction Mentor will guide, assist and mentor the SMME Subcontractors throughout the Contract using SMME 005 to report on performance of the SMME on monthly basis. On completion, the SMME Construction Mentor will issue a Certificate of Completion within seven days after the final completion (form **SMME 006**).

(b) Quality of work and performance of the SMME Subcontractor

The SMME Subcontractor shall have 14 days from the date of receipt of the letter of warning by the Principal Contractor to address and rectify the issues raised by the Principal Contractor, with the exception of points (d) and (e) of clause D11.3, for which the rectification time shall be 24 hours. Failure to do so will be sufficient grounds for the Principal Contractor to terminate the Contract provided the MT is satisfied that the Principal Contractor has made every effort to correct the performance by the SMME Subcontractor. The MT will establish a 'change control procedure' for the process of making changes to subcontracts and the work thereof as the contract proceeds.

(c) Training

The SMME Contractors registered in the CDC Database will be assessed in order to identify areas that require intervention and develop a growth plan for the SMME Contractor. Any deficiencies or specific skills that can be addressed during construction stage, the Principal Contractor shall provide such training or skills transfer. The provisional sum will be allowed for under the relevant item in the bill of quantities. It is deemed that the Principal Contractor has allowed for all training requirements to accommodate SMMEs included in the mark-up provision.

The schedule of training requirements for the SMME contractor shall be forwarded to Principal Contractor, using form SMME008 and the Principal Contractor will be required to provide a method statement schedule to address the identified deficiencies. The accredited training provided by the service provider to the SMMEs will include but not limited to:- Project Management, Occupational Health and Safety – Construction Regulations , Resource Productivity, Business Administration, Financial Management, etc. The provisional sum amount will fund the accredited training and training will be done in conjunction with the training and development manager at the CDC SMME Unit.

(d) Reporting

SMME Reporting forms shall form part of the monthly interim payment certificates of the Principal Contractor and failure to submit the required forms and monthly mentorship report will result in the payment certificate being rejected by the CDC.

Form code	Description	Reporting
SMME 003A	SMME Package schedule - Provisional Amount	35% to be completed once off beginning of contract
SMME 003B	SMME Package schedule - PMT identified	35% to be completed once off beginning of contract
SMME 004	SMME Request form	Request for SMME Names for Packages
SMME 006	Certificate of experience	Completion of Project
SMME 009	Declaration form	Monthly

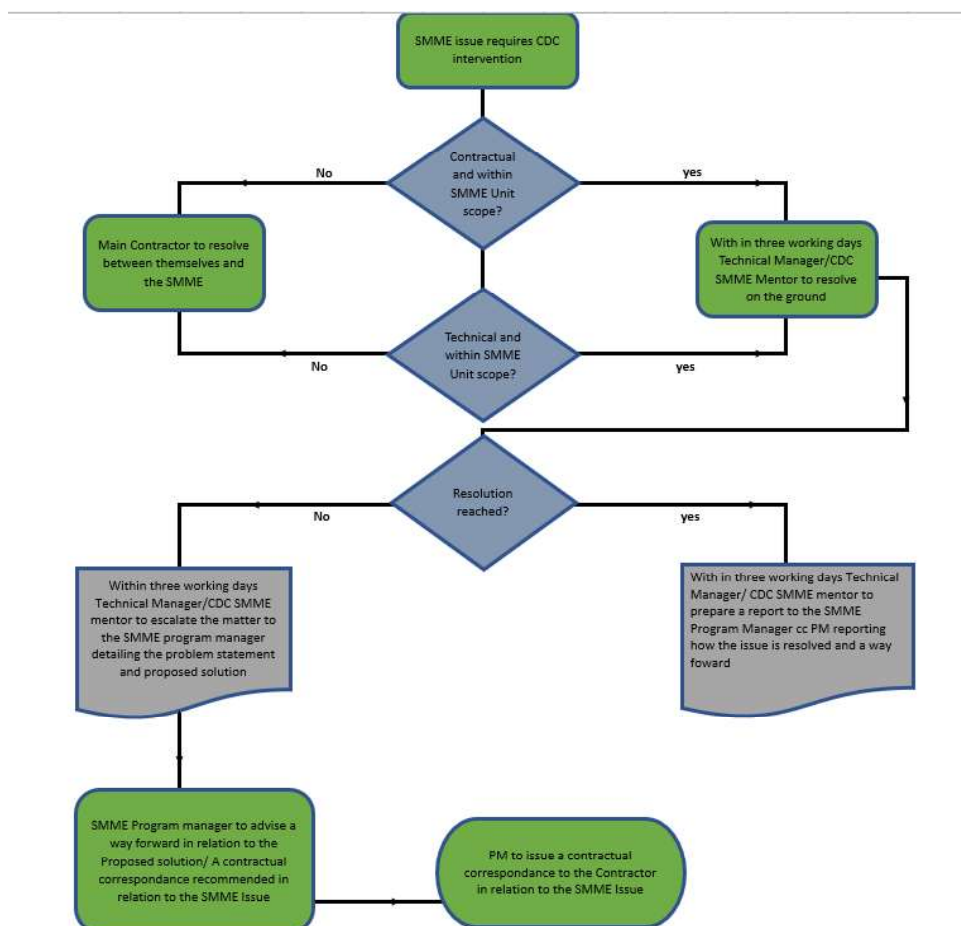
D11.2 Dispute Avoidance and Resolution Procedures

The Principal Contractor shall at all times:

- (a) apply the terms and conditions of the subcontract fairly and justly, taking due cognisance of the level of sophistication and experience of the particular SMME concerned, as well as the level of subcontract applicable;
- (b) closely manage and supervise all SMMEs and wherever feasible, shall give reasonable warning to SMMEs when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Principal Contractor shall, whenever feasible, give the SMMEs reasonable opportunity to make good any such contravention or to avoid such contravention and shall render all reasonable assistance to the SMME in this regard.

When taking any disciplinary actions or imposing any penalties as are provided for in the subcontract, the Principal Contractor shall explain fully to the SMMEs that such actions are provided for in the subcontract. If any dispute should arise between the Principal Contractor and a SMME such dispute shall be resolved in accordance with the provisions of the subcontract.

Below is a process flow with respect to dispute resolution where an SMME issue is encountered within the contract:



D11.3 Quality of Work and Performance of the SMME

If the SMME, in the opinion of the Principal Contractor, fails to comply with the criteria as listed below, the Engineer/Principal Agent shall issue a written warning to the Principal Contractor, stating all the areas of non-compliance. A copy of the letter of warning shall be forwarded to the Client. These criteria are as follows:

- (a) Acceptable standard of works as set out in the specifications in the subcontract tender document
- (b) Progress in accordance with the time constraints in the SMME's tender document
- (c) Punctual and full payment of the workforce and suppliers
- (d) Site safety
- (e) Environmental impacts.

The Subcontractor shall have 14 days from the date of receipt of the letter of warning by the Principal Contractor to satisfactorily address the issues raised by the Contractor, with the exception of point (d), for which the response time shall be 24 hours. Failure to do so will be sufficient grounds for the Principal Contractor to terminate the contract provided the SMME Unit is satisfied that the Principal Contractor has made every effort to correct the performance by the SMME.

D11.4 Payment to SMMEs

The following payment conditions shall form part of the Sub Contract Agreement entered into between the Principal Contractor and SMME:

- (a) The Principal Contractor shall draw up a schedule with dates of measuring/certifying works, submitting invoices and payment dates. This schedule is to be issued to the CDC Project Manager, SMME Unit, SMME Mentor and awarded SMME's;
- (b) The main contractor will pay all SMME subcontractors appointed directly once certified by the Project Quantity Surveyor.
- (c) The Principal Contractor must instruct the SMME subcontractors to submit their payment certification or claim monthly in line with the requirements of the contract between the CDC and the Principal Contractor to ensure that their claims are processed and paid by the main contractor timeously.

D12. PRINCIPAL CONTRACTOR'S DUTIES UPON COMPLETION OF EACH SMME PACKAGE

The Principal Contractor shall, on completion of each and every subcontract completed in accordance with the provisions of this Specification, issue free of charge to the SMME within 7 days of the completion of the subcontract, a Certificate of Experience on a single A4 page stating:

(a) Contract data:

- (i) Contract title;
- (ii) Contractor's full name and address;
- (iii) Principal agent's name and address;

(b) Subcontract data:

- (i) SMME name and address;
- (ii) Scope or extent of the subcontract works;
- (iii) Value of the subcontract works;
- (iv) Applicable level of the subcontract;
- (v) Duration of the subcontract;
- (vi) Date of completion of the subcontract; and
- (vii) Description of the training undergone by the SMME;

(c) Certifying the SMMEs completion of the subcontract.

SMME 006 form provides the format, layout and appearance of certificates to be issued but the Principal Contractor may suggest revision to MT for approval which shall be respectable and presentable in accordance with the general standards of normal business practice. All certificates issued shall be co-signed by the Principal Agent/Consulting Engineer and a senior representative of the Principal Contractor, who has been duly authorised thereto.

D13. CONTRACTOR'S LIABILITY

D13.1 No provision or requirement set out in this Specification shall be deemed to relieve the Principal Contractor of any liability or obligation under the contract between the CDC and the Principal Contractor, and the Principal Contractor shall be fully liable for the acts, defaults and neglects of any SMMEs, his agents or employees, as fully as if they were the acts, defaults and neglects of the Principal Contractor, his agents or employees.

D14. PERFORMANCE GUARANTEE

- D14.1** No provision or requirement set out in this specification shall be deemed to relieve the Principal Contractor of any liability or obligation under the contract, and in accordance with the provisions of the relevant clause of the applicable form of contract, the Principal Contractor shall be fully liable for the acts, defaults and neglects of any SMMEs, his agents or employees, as fully as if they were the acts, defaults and neglects of the Principal Contractor, his agents or employees.

Any failure or neglect by the Principal Contractor to comply with the provision of the specifications, or any omission or neglect by the Principal Contractor in adhering to or applying the principles as are described and inherent in the specifications, shall be deemed to constitute a warrant for the Principal Agent/ Consulting Engineer to act in terms of relevant clause of the applicable form of contract.

SMMEs will be required to produce a Performance guarantee in line with the value of the subcontract work as follows:

0 to R2, 000,000 - 0%;

R2, 000,001 to R4, 000,000 - shall be 2.5%;

R4, 000,001 and higher - shall be 5%;

Where such guarantees are provided by SMME subcontractors the return of same will be related to the time when the work carried out by the SMME subcontractor is complete to the satisfaction of the Principal Contractor and the Principal Agent/ Consulting Engineer.

D15. RETENTION

- D15.1** Fifty Percent Retention on SMME subcontractors excluding VAT, will be released half on practical completion and balance on final completion as follows:

Special Condition: Retention on subcontractors, whose subcontract value is less than R 1 000 000.00 (One Million Rand), will be released 3 months after the subcontract work carried out by the subcontractor is complete to the satisfaction of the Principal Contractor.

D16. MEASUREMENT AND PAYMENT

The price tendered will be deemed to include all incidentals by the Principal Contractor to comply with the conditions of this specification. No other claims will be entertained should SMMEs negatively affect the contract works in any way, and the Principal Contractor shall be deemed to have included such effects in the handling cost percentage for the different SMME work packages above.

D17. SUBCONTRACTING BY SUBCONTRACTORS

The Principal Contractor is not to permit SMME subcontractors to further subcontract on any other conditions than those applying in the project specification to subcontractors or SMME subcontractors.

D18 JOINT VENTURING & CONSORTIUM

The SMME sub-contractors are not permitted to enter into Joint Ventures or form a consortium with other SMME(s) sub-contractors.

D19 REPEAT APPOINTMENTS

The SMME shall be afforded a maximum of two active packages on **ONE** particular CIDB Grade and shall not be considered for any further works until they've provided proof to the SMME Unit of upgrading with CIDB.

This will only apply to SMMEs that have successfully completed their packages within the specified time, achieved the desired quality and adhered to all contractual obligations.

The CDC SMME Unit has the right through the MT to query any or all of the recommendations of the Principal Contractor. Once the MT is satisfied with the recommendations of the Principal Contractor, it reserves the right approve or reject the repeat appointment.

This is to ensure the spread of work, mitigation of risk and realisation of the developmental objectives.

Acknowledgement of SMME Specification	Principal Contractor Representative	CDC Project Manager	Principal Agent
Date:	Name:	Name:	Name:
	Signature:	Signature:	Signature:

**C5.6 ANNEXURE F: CIDB B.U.I.L.D STANDARD FOR DEVELOPING
SKILLS THROUGH INFRASTRUCTURE CONTRACTS
(MARCH 2023)**

C3.8 CONSTRUCTION LABOUR MANAGEMENT SPECIFICATION FOR DEVELOPING SKILLS THROUGH INFRASTRUCTURE CONTRACTS

Deliverable T1: Provide Training and Development interventions to achieve full compliance to the Construction Industry Development Board (CIDB) Contract Skills Development Goal (CSDG)

The Contractor shall achieve the CSDG (per Government Gazette No.48491 of 28 April 2023 and any subsequent legislative amendment) by providing opportunities to trainees, learners, interns and candidate professionals requiring structured workplace learning and experiential opportunities in order for the Contractor to fully comply to the requirements of the cidb Contract Skills Development Goal.

The main contractor shall determine and provide for the cost of full compliance to the CSDG, expressed in Rand, which shall not be less than the full contract amount multiplied by the applicable percentage (%) factor given in Table 1 in the Standard for Developing Skills, for the applicable class of construction works.

The main contractor shall submit to Coega Human Capital Solutions (HCS) via the Employer' Representative, within 20 days of the contract coming into effect, and/or the issuing of an instruction from the Employer' Representative, a contract compliant baseline human resources development plan to ensure full compliance to CSDG as referred to herein above. The baseline human resources development plan must also include all subcontractors' (all SMMEs inclusive) obligations to ensure that the total CSDG is achieved. The baseline human resources development plan must receive the Employer' Representative written approval prior to its implementation.

The main contractor shall also submit to Coega Human Capital Solutions (Coega HCS) via the Employer' Representative, monthly CSDG training compliance reports, as well as the final CSDG training compliance report **within ten (10) days** of taking over certification. Such training reports shall be in the format as required by Coega HCS and include all CSDG deliverables by all subcontractors.

The preference of selection and placement of appropriate trainees/ learners/ candidates shall be local individuals, in line with identified local Target Areas. The initial search shall be limited to the Project Job Seekers' Database (which includes training/ development opportunity seekers) managed by Coega HCS. Only upon written confirmation from Coega HCS of the non-availability of candidates per instance, shall contractors be obligated to recruit required trainees/



learners/ interns/ candidates professionals through own conventional means for subsequent prior placement approval by Coega HCS.

The Contractor shall ensure the achievement of the measurable CSDG by providing opportunities to trainees, learners and candidates requiring structured workplace learning using one or a combination of any of the following CSDG Methods in relation to work directly relating to the contract or order.

Deliverable T 1.1: The Contractor shall ensure the provision of structured workplace learning opportunities that result in the attainment for learners towards the attainment of a part or a full occupational qualification. (CSDG Method 1)

Deliverable T 1.2: The Contractor shall ensure the provision of structured workplace learning opportunities for apprentices and/or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least 60% of the artisan learners being holders of public TVET college qualifications. (CSDG Method 2)

Deliverable T 1.3: The Contractor shall ensure the provision of work integrated learning opportunities for University of Technology or Comprehensive University students completing their national diplomas. (CSDG Method 3)

Deliverable T 1.4: The Contractor shall ensure the provision of structured workplace learning opportunities for built environment profession candidates towards professional registration by a listed statutory council. (CSDG Method 4)

Employed learners may not account for more than 33% (Thirty Three percent) of the CSDG, and not more than one method may be applied to any individual concurrently in the calculations of the CSDG.

Not more than one method may be applied to any individual concurrently in the calculation of the CSDG

TABLE 1: CSDG goals for different classes of engineering and construction works contracts:

Class of construction works as identified in terms of Regulation 25(3) of the Construction Industry Regulations 2004	Construction Skills Development Goal (CSDG) (%)

Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil Engineering OR General Building	0.375
EE	Electrical Engineering Works (Buildings)	0.25
EP	Electrical Engineering works (Infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering Works	0.25
SB	Specialist	0.25

Professional Service Provider contracts:

Expressed in hours and shall not be less than the professional fees in millions of Rand multiplied by 150 For example:

The proportion contract amount for professional services is R5.6m, the CSDG in hours: R5.6m x 150 = 840 hours.

CONTRACT SKILLS DEVELOPMENT GOAL CREDITS

- ✓ All beneficiaries must be registered by the Contractor with the cidb Skills Development Agency (SDA) by the contractor. www.cidb.org.za or contact 086 100 2423
- ✓ Multiply the number of people employed by the contractors and placed for continuous opportunities in a 3-month period by the notional values in the table below:

Type of Training Opportunity	Provision for Stipends (unemployed only)	Provisions for Mentorship	Provisions for Additional Costs*	Total Costs PER QUARTER	
				Unemployed	Employed
Method 1					
Occupational Qualifications	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET Graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners, or a 240 credits qualification	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 360	R37 000	R20 000	R4 500	R61 500	R20 000

credit qualification					
Candidates with 480 or more credits qualification	R47 000	R20 000	R4 500	R71 500	R20 000

DENIAL OF CREDITS

Credits towards the achievement of the CSDG will be denied if:

- a) Opportunities not provided on-site or not directly linked to the contract / order
- b) Failure to register all beneficiaries with the cidb Skills Development Agency (SDA)
- c) Failure to submit final compliance report within 10 days after taking over
- d) If the following is not provided:
 - i. Compliance baseline report, interim compliance report or final compliance report
 - ii. Mentorship plan for candidate professionals
 - iii. Training plan
 - iv. Training reports
 - v. Required records, documents and signatures
 - vi. Mentorship plan not in accordance with the requirements of the applicable professional body, statutory council or qualifying authority
 - vii. Structured workplace learning is not in accordance with the curriculum requirements
- e) Conditions of employment and rates of allowance are not in accordance with legislative provisions
- f) The Contractor does not maintain the required training records, or an audit reveals insufficient information
- g) Contractor fails to provide sufficient evidence of disciplinary actions taken against a learner who fails to present their interim reports

COMPLIANCE REQUIREMENTS (CONTRACTORS):

CLIENT	COMPLIANCE REQUIREMENTS			
	Implementation Date	Class of Works	Min Tender Value	Min Project Duration
National Public Works & Infrastructure & Regions	Beginning of 2021-2022 FY	All	Grade 7	12 months
National Govt Departments		All	Grade 7	12 months
Public Entities		All	Grade 7	12 months

COMPLIANCE REQUIREMENTS (PSPs):

CLIENT	COMPLIANCE REQUIREMENTS			
	Implementation Date	Class of Works	Min Tender Value	Min Project Duration
National Public Works & Infrastructure & Regions	Beginning of 2021-2022 FY	All	R5m	12 months
National Govt Dept		All	R5m	12 months
Public Entities		All	R5m	12 months

**C5.7 ANNEXURE G: CIDB B.U.I.L.D STANDARD FOR INDIRECT
TARGETING FOR ENTERPRISE DEVELOPMENT THROUGH
CONSTRUCTION WORKS CONTRACTS PUBLISHED IN
GG NO. 54575 OF 24 APRIL 2026**



Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Vol. 730

24

April
April

2026

No. 54575

PART 1 OF 2

N.B. The Government Printing Works will not be held responsible for the quality of "Hard Copies" or "Electronic Files" submitted for publication purposes

ISSN 1682-5845



9 771682 584003



5 4 5 7 5



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

BOARD NOTICE 913 OF 2026

Construction Industry Development Board**Standard for Developing Skills through
Infrastructure Contracts****31 March 2026**

In terms of sections 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to promote best practice Standards. This best practice Standard for developing skills through infrastructure contracts, establishes the minimum contract skills development goals to be achieved in the performance of such contracts relating to the provision of workplace opportunities, linked to or leading to:

- a) a part or full occupational qualification registered on the National Qualification Framework;
- b) a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012);
- c) a national diploma or degree registered on the National Qualification Framework; and
- d) registration in a professional category by any of the professional bodies listed in the standard.

Mr Khulile Nzo

Chairperson: Construction Industry Development Board



Standard for developing skills through infrastructure contracts

(31 March 2026)

Copyright cidb This document is published by the Construction Industry Development Board.		
Version	Date	Comments
1.0	08 August 2013	
2.0	03 July 2020	
3.0	31 March 2023	
4.0	31 March 2026	

Introduction

Procurement may be defined as the process which creates, manages and fulfils contracts. Procurement accordingly commences once a need for goods, services or works has been identified and it ends when the goods are received, or the services or construction works are completed. Public procurement can have a significant impact on social and economic development, if it is used to leverage social and development objectives.

The South African government requires that its considerable expenditure on the delivery, maintenance and operation of infrastructure (fixed assets that are constructed or result from construction operations) contribute to an increase in the number of people who have part or full occupational qualifications registered on the NQF or professional designations awarded by professional bodies or statutory councils. This standard has been prepared to leverage contributions towards the increase of the pool of qualified skilled people, and where required professionally registered, through training on professional services, design and build or engineering and construction works contracts associated with such expenditure. This Standard for developing skills through infrastructure contracts, establishes the minimum contract skills development goals to be achieved in the performance of such contracts relating to the provision of workplace opportunities, linked to or leading to:

- a) a part or full occupational qualification registered on the National Qualification Framework.
- b) a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012);
- c) a national diploma or degree registered on the National Qualification Framework; and
- d) registration in a professional category by any of the professional bodies listed in Table 1 of this standard.

The Client is responsible for achieving the contract skills development goals through the appointment of a contractor and are provided with a number of methods for measuring their achievements. The client should determine the feasibility of what methods can be applied based on the project.

This standard should be applied to;

A contract or an order issued in terms of a framework agreement that has a duration of 12 months or longer, and:

- a) a contract of R5 million or more, in the case of a professional service or service contract or an order issued in terms of such a contract; or
- b) a cidb grading designation of grade 7 or higher, in case of an engineering and construction works, or design and build, or develop and construct, or management contractor contracts or design by employer or an order issued in terms of such a contract.

This Standard will be subject to review every five years, or sooner if required.

Standard for developing skills through infrastructure contracts

1 Scope

This standard establishes a key performance indicator;

- a) in the form of a contract skills development goal (CSDG) relating to the structured workplace learning of occupational or professional learning, which enables learners to make measurable progress towards the attainment of:
 - (i) a part or full occupational qualification registered on the National Qualification Framework; or
 - (ii) a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012); or
 - (iii) a national diploma or degree registered on the National Qualification Framework; or
 - (iv) registration in a professional category by any of the professional bodies listed in Table 1 of this standard.
- b) in the delivery, maintenance and operation of infrastructure through the performance of professional service, engineering and construction works, or design and build or develop and construct, or management contractor contracts or design by employer or an order associated with such a contract and
- c) sets out the methods by which the key performance indicator is established, measured, quantified and verified in the performance of the contract or the execution of an order.

NOTE 1: Guidance on the manner in which this standard should be incorporated into procurement documents is provided in Annex A.

NOTE 2: This standard can be applied to contracts or to orders (call-offs) issued in terms of framework agreements. Framework agreements are well suited to situations in which long-term relationships are entered into. They offer flexibility in attaining contract skills development goals as requirements can be adjusted from one order to another, thus allowing key performance indicators to be improved upon over time.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

allowance

amount provided for in the contract or an order by the employer relating to one or more of the following:

- a) the performance by the contractor of work or services that are foreseen but cannot be accurately specified at the time that the contract was entered into or the order issued;
- b) work or services to be performed, or goods provided, by a subcontractor who is either nominated by the employer or is selected by the employer in consultation with the contractor after the award of the contract or the issuing of an order;
- c) provision for price adjustment for inflation; or
- d) other budgetary provisions intended to cover the employer's contractual risks

artisan

a person who has been certified as competent to perform a listed trade in accordance with Section 26B of the Skills Development Act of 1998 (Act No. 97 of 1998)

black people black people: is a generic term which refers to Africans, Coloureds and Indians

(a) who are citizens of the Republic of South Africa by birth or descent; or

(b) who became citizens of the Republic of South Africa by naturalisation (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date.

candidate

a person who is registered in a category of registration which ultimately leads to registration in a professional category by any of the professional bodies listed in Table 1

cidb

Construction Industry Development Board, established in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000)

class of construction works

the class of construction works referred to in Schedule 3 of the Construction Industry Development Regulations 2004, as amended from time to time

contract amount

financial value of the contract at the time of the award of the contract or an order at the time of issue, including value added tax but excluding all allowances and expenses

contract skills development goal (CSDG)

number of people benefiting through the skills development opportunities that a contractor contracts to provide in relation to work directly related to the contract or order, up to:

- a) completion, in the case of a professional service contract;
- b) the end of the service period, in the case of a service contract; and
- c) practical completion, in the case of an engineering and construction works contract

contractor

person or organization that contracts to provide professional services, goods and related services, or engineering and construction works

design and build contract

engineering and construction works contract where both the design and the construction are the responsibilities of the same contractor

design by employer

Contract under which a contractor undertakes only construction based on full designs issued by the employer

develop and construct

Contract based on a scheme design prepared by the employer under which a contractor produces drawings and constructs

employed learner

a learner who was in the employment of an employer prior to the commencement of the contract or execution of the order. Learners deployed from the public sector, other organisations, or other contractors for the purposes of gaining structured workplace learning shall also be considered to be an employed learner, albeit their employer remaining unchanged.

employer

person or organization entering into a contract with the contractor for the provision of professional services, goods and related services, engineering and construction works (commonly referred to as the client)

employer's representative

person authorized to represent the employer in terms of the contract

engineering and construction works contract

contract for the provision of a combination of goods and services arranged for the manufacture, development, extension, refurbishment, rehabilitation or demolition of a fixed asset, including building and engineering infrastructure expenses
costs incurred by the contractor in the performance of the contract or order, which are in terms of the contract recoverable from the employer

framework agreement

agreement between an employer and one or more contractors, the purpose of which is to establish the terms of the governing orders to be awarded during a given period, with regard to price and, where appropriate, the quantity envisaged

management contractor / construction management

Contract under which a contractor provides consultation during the design stage and is responsible for planning and managing all post contract activities for contractors and the performance of the whole contract

mentor

a qualified and experienced person, in the case of professionals, registered person, designated to guide a learner or candidate through a structured work experience learning component of a learning programme required for the acquisition of a part or full qualification or professional designation

notional cost of training

the monetary value dedicated to workplace training, used to meet contract skills development goals and ensure employees gain skills

occupational qualification

occupational qualification registered on the National Qualifications Framework Act (Act No. 67 of 2008)

order

the instruction to carry out construction works, services or professional services under a framework agreement

organ of state

an organ of state as defined in section 239 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)

part qualification

an assessed unit of learning that is registered on the National Qualifications Framework as part of an occupational qualification

practical completion

the state of completion at the end of construction required in terms of an engineering and construction works contract

Note: Practical completion is commonly understood to be a state of readiness for occupation of the whole works although some minor work may be outstanding. Practical completion in an engineering and construction works contract occurs when:

- a) FIDIC Short Form of Contract: the date when the Employer considers that the Works have been completed in accordance with the Contract, except for minor outstanding work and defects which will not substantially affect the use of the Works for their intended purpose.
- b) FIDIC Red, Silver and Yellow Book: the date when the Engineer determines that the Works have been completed in accordance with the contract except for minor outstanding works and defects which will not substantially affect the use of the works for their intended purpose.
- c) GCC 2025: the date when the Engineer certifies that the whole or portion of the Works has reached a state of readiness, fit for the intended purpose, and occupation without danger or undue inconvenience to the Employer, although some work may be outstanding.
- d) JBCC 6.2 Principal Building Agreement and JBCC Minor Works Agreement: the date when the principal agent decides that the completion of the works has substantially been reached and can be used for the purpose intended.
- e) NEC4 Engineering and Construction Contract: the date when the Project Manager decides that the Contractor

- has reached Completion as defined in the contract.
- f) NEC4 Engineering and Construction Short Contract: the date when the Employer decides that the Contractor has completed the works in accordance with the Works Information except for correcting notified Defects which do not prevent the Employer from using the works and others from doing their work.

professional category

a category of registration identified in Table 1 or such other category recognised by the Employer in the application of this standard

Table 1: Categories of registration

Profession	Category of registration	Act
Architectural	Architect, Senior Architectural Technologist, Architectural Technologist or Architectural Draughtsperson	Architectural Profession Act of 2000 (Act No. 44 of 2000)
Construction Health and Safety	Construction Health and Safety Agent, Construction Health and Safety Manager or Construction Health and Safety Officer	Project and Construction Management Professions Act of 2000 (Act No. 48 of 2000)
Construction Project Management	Construction Project Manager	
Construction Management	Construction Manager	
Engineering	Engineer, Engineering Technologist, Engineering Technician or Certificated Engineer	Engineering Profession Act of 2000 (Act No. 46 of 2000)
Landscape Architectural	Landscape Architect, Landscape Technologist, Landscape Technician or Landscape Assistant	Landscape Architectural Profession Act of 2000 (Act No. 45 of 2000)
Planning	Planner or Technical planner	Planning Profession Act, 2002. (Act No. 36 of 2002)
Quantity Surveying	Quantity Surveyor	Quantity Surveying Profession Act of 2000 (Act No. 49 of 2000)
Scientists	Natural Scientists	Natural Scientific Professions Act (Act No. 27 of 2003)
Surveying	Land Surveyor, Engineering Surveyor or Technician Engineering Surveyor	Professional and Technical Surveyors' Act (Act No. 40 of 1984)
Valuers	Valuer or Associate Valuer	Property Valuers Profession Act (Act No. 47 of 2000)

professional fees

financial value of a professional service contract at the time of the award of the contract or an order at the time of issue, excluding value added tax (VAT), allowances and expenses

professional service contract

contract for the provision of services with the skill and care normally delivered by professionals

Sector Education and Training Authority (SETA)

an institution established under section 9 of the Skills Development Act, Act 97 of 1998 and which has the responsibility under this Act to register learners on learning programmes

service contract

contract for the provision of labour or work, including knowledge-based expertise, carried out by hand or with the assistance of equipment and plant

site

means the land or place made available by the employer, for the purposes of the contract or order, on, under, over, in or through which the works or services are to be executed

statutory council

a council established as follows:

- South African Council for the Architectural Profession, established by the Architectural Profession Act of 2000 (Act No. 44 of 2000);
- South African Council for the Project and Construction Management Professions, established by the Project and Construction Management Professions Act of 2000 (Act No. 48 of 2000);

- c) Engineering Council of South Africa, established by the Engineering Profession Act of 2000 (Act No. 46 of 2000);
- d) South African Council for the Landscape Architectural Profession, established by the Landscape Architectural Profession Act of 2000 (Act No. 45 of 2000);
- e) South African Council for the Quantity Surveying Profession, established by the Quantity Surveying Profession Act of 2000 (Act No. 49 of 2000);
- f) South African Council for Professional and Technical Surveyors, established by the Professional and Technical Surveyors' of 2000 (Act No. 40 of 1984);
- g) South African Council for Planners, established by the Planning Professions Act of 2002 (Act No. 32 of 2002);
- h) South African Council for Natural Scientific Professions, established by the Natural Scientific Professions Act (Act No. 27 of 2003); or
- i) South African Council for the Property Valuers Profession, established by the Property Valuers Profession Act (Act No. 47 of 2000)

structured mentorship

mentorship provided by a person who is registered in a suitable category of professional registration by a professional body or statutory council who leads and directs a candidate towards professional registration

structured workplace learning

component of learning in an occupational qualification or work placement for a trade, occupation or professional designation whereby a learner is mentored by a suitably qualified, and where required, registered mentor in the application and integration of the knowledge and practical skills learnt, under supervision, in the actual context of a workplace in accordance with the prescripts set by the relevant qualifying authority, professional body or statutory council

final summary sub-total

financial value of all the items in the Bills of Quantities or Schedule of Rates or Pricing Schedule, excluding value added tax, allowances and expenses

supervisor

a supervisor is a person in the particular workplace charged with the responsibility of allocating workplace tasks to a learner that are aligned to the prescriptions of their learning programme and of overseeing and reporting on that learning using a formally agreed record keeping system

Tender sum

the overall pricing figure proposed by a tendering contractor in accordance with the tender pricing document

unemployed learner

a learner who was not in the full-time employment of the contractor prior to the commencement of the contract or execution of the order and is appointed by the contractor or SDA on a limited duration employment contract linked to the prescriptions of a structured workplace learning programme. Their conditions of employment shall not be less favourable than those set out for such learners on learnerships set out in section 18 (3) of the Skills Development Act (Act 97 of 1998)

work integrated learning

the workplace learning component required by learners completing a national diploma or bachelor's degree at a University of Technology or Comprehensive University

3 Requirements

3.1 Contract skills development goal (CSDG)

3.1.1 The contractor shall attain or exceed the contract skills development goal in the performance of the contract or the execution of an order.

3.1.2 The contract skills development goal shall be expressed as in 3.1.2.1 for engineering and construction works and services contracts, and as in 3.1.2.2 for professional services contracts.

3.1.2.1 In the case of engineering and construction works contracts, design and build or develop and construct, or management contractor contracts or design by employer or services contracts the contract skills participation goals, expressed in Rand, shall be no less than the final summary sub-total multiplied by a minimum percentage (%) factor outlined in Table 2 below for the applicable class of construction works used in the application of the Construction Industry Development Regulations, issued in terms of the Construction Industry Development Board Act of 2000.

How to calculate the CSDG:

$$\text{CSDG} = \text{St} \times \text{Pf}$$

Where:

St = Final Summary Sub-total (BoQ items)

Pf = Percentage Factor (derived from Table 2)

Example:

$\text{CSDG} = \text{St} \times \text{Pf}$

St = R65 700 000.00

Pf = 0,5% (GB Class of Works)

$$\begin{aligned} \text{CSDG} &= \text{St} \times \text{Pf} \\ &= \text{R65 700 000.00} \times 0.5\% \\ &= \text{R328 500.00} \end{aligned}$$

Therefore R328 500.00 is the minimum budgeted amount for CSDG, which is the amount for skills development on the project. This amount will then have to be used to determine the number of beneficiaries based on the different training methods 1 to 4 or a combination as shown under Table 3. (Notional Cost of Providing Training)

Table 2: Contract skills development goals for different classes of engineering and construction works contracts

Class of construction works as identified in terms of Regulation 25(3) of the Construction Industry Regulations 2004		Minimum Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil engineering	0.25%
EE	Electrical Engineering works (buildings)	0.25%
EP	Electrical Engineering works (Infrastructure)	0.25%
GB	General Building	0.50%
ME	Mechanical Engineering works	0.25%
Specialist Works	Specialist class of construction works	0.25%
PS	All Built Environment Professional Services or a Service Contract	2%

Example 1: The final summary sub-total of the tender sum for an engineering and construction works contract in the GB class of construction works is R65,7m. The contract skills development goal in Rands is $\text{R65,7m} \times 0.5\% = \text{R328 500}$. **The Client may determine the skills Method/s to be implemented on the contract or the Client may elect the contractor to determine the skills Methods to be implemented as per the Standard, provided the CSDG is achieved.** The pricing for the skills Methods to be implemented is provided in Table 3 of the Standard.

3.1.2.2 In the case of professional services contracts the contract skills development goals, expressed in rands, shall be not less than the professional fees (excluding disbursements) in millions of Rands multiplied by the percentage factor of 2 % as per Table 2.

Where:

PSF = Professional Service Fees (excluding disbursements)

Pf = Percentage Factor (derived from Table 2)

Example:

$CSDG = PSF \times Pf$

PSF = R5 600 000.00

Pf = 2% (PS)

$$\begin{aligned} CSDG &= PSF \times Pf \\ &= R5\,600\,000.00 \times 2\% \\ &= R112\,000.00 \end{aligned}$$

Therefore R112 000.00 is the minimum budgeted amount for CSDG, which is the amount for skills development on the project. This amount will then have to be used to determine the number of beneficiaries based on training method 3 or 4 or a combination as shown under table 3. (Notional Cost of Providing Training)

3.1.2.3 The percentage factor applied for the contract skills development goal shall be revised as the need arises and will be published in a Gazette notice.

3.1.3 Where required in terms of the contract or order, a specified proportion of the learners and candidates shall be selected from persons in the employ of an organ of the state who meet the relevant eligibility criteria for the relevant programme.

3.2 Achieving the contract skills development goal (CSDG)

3.2.1 The contractor shall achieve the measurable contract skills development goal by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the following in relation to work directly related to the contract or order:

Method 1: structured workplace learning opportunities for learners towards the attainment of a part or a full occupational qualification;

Method 2: structured workplace learning opportunities for apprentices or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least 60% of the artisan learners being holders of public TVET college qualifications;

Method 3: structured workplace experience for University of Technology or Comprehensive University students requiring work integrated learning as part of their national diploma or degree programme, and/or learners that have completed N4, N5 and N6 that require 18 months of relevant workplace experience to convert their qualification into a National Diploma

Method 4: structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council listed in Table 1 above.

3.2.2 Employed learners may not account for more than 33 percent of the contract skills development goal.

3.2.3 Not more than one method may be applied to any individual concurrently in the calculation of the contract skills development goal.

NOTE: The principle is that an individual can only be counted once towards the CSDG.

3.3 Contract skills development goal

3.3.1 Contract skills development goal will not be awarded for learners enrolled as beneficiaries of other funded or subsidised programmes.

3.3.2 In the case of engineering and construction works, design and build or develop and construct, or management contractor contract or an order issued in terms of such a contract:

- a) The contract skills development goals shall be granted by multiplying the number of people placed by the contractors by the duration and the notional values contained in Table 3, or as revised in a Gazette notice.
- b) The contractor may source beneficiaries of the contract skills development goal directly.
- c) All beneficiaries of the Standard must be registered with the cidb.

Table 3: The notional cost of providing training opportunities per month

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R5 000	N/A	R3 000	R8 000	R3 000
Method 2					
TVET College graduates	R7 000	N/A	R3 000	R10 000	N/A
Apprenticeship	R7 000	N/A	R4 000	R11 000	R4 000
Method 3					
P1 and P2 learners, or a 240 credits qualification	R9 000	R7 000	R2 000	R18 000	N/A
Method 4					
Candidates with a 360 credits qualification	R13 000	R7 000	R2 000	R22 000	R7 000
Candidates with 480 or more credits qualification	R16 000	R7 000	R2 000	R25 000	R7 000

***Provision for additional Costs include provisions for personal protective equipment, insurance, medical assessments, course fees and trade tools (where applicable), assessment, reporting, monitoring and other related costs.**

NOTE:

i) the contractor shall pay the stipend directly to learners, employed learners receive a salary/wage therefor the stipend is not applicable.

The notional cost of providing training opportunities will be reviewed as and when required. The new, revised costs will be published as revised in a Gazette notice.

Example 1: Training Target Calculation for a R65,7m GB contract

Final Summary Sub-total	R65 700 000
Contract duration	12 Months
Percentage Factor	0,50%
Minimum CSDG target	0,50% x R65 700 000
	R328 500

In order to determine the number of training opportunities to be provided on the above budget allocation of R328 500. Where the client/contractor preference is Method 4 for a duration of 12 months. The notional cost of training will be calculated as follows:

Method 4 (360 credits):

St - Stipend per month	: R13 000
Mt – Mentorship per month	: R7 000
PaC - Provision for additional cost	: R2 000
NCT – Notional Cost of Training	: Duration x (St + Mt +PaC)
Duration in this case is 12 months.	

$$\begin{aligned} \text{NCT} &= 12 \times (\text{R13 000} + \text{R7 000} + \text{R2 000}) \\ &= \text{R 264 000} \end{aligned}$$

Therefore R328 500 divided by R264 000 = 1,24, so the budget can only provide 1 opportunity for Method 4 for a duration of 12 months. This will leave you with a balance of R 64 500, you can then utilize that to train one person for a period of 7 months on Method 2.

Method 2:

St - Stipend per month : R7 000
 PaC - Provision for additional cost : R3 000
 NCT – Notional Cost of Training : Duration x (St + PaC)
 Duration in this case is 7 months.

$$\begin{aligned} \text{NCT} &= 7 \times (\text{R7 000} + \text{R3 000}) \\ &= \text{R 70 000} \end{aligned}$$

Note:- The contractor must attain or exceed the contract skills development goal in the performance of the contract or the execution of an order. In this example the contractor needs to spend a minimum of R 328 500. Therefore, the total notional cost of training for Method 4 and Method 2 is equal to R334 000. The contractor must initiate a negotiation process with the Client to increase the budget or reduce the placement duration to suit the available CSDG budget.

Skills Method	Number of learners	Notional Cost / Learner / month	Placement Duration in months	Total Notional Cost over 12 months Contract
Method 4: Candidacy for an unemployed learner with a 3-year qualification (360 credit)	1	R22 000	12	R264 000
Method 2: Workplace learning opportunities, with unemployed TVET graduates	1	R10 000	7	R 70 000
Total	2			R334 000

Example 2: Training Target Calculation for a R5,6m Professional Service Contract

CSDG = PSF x Pf
 PSF = R5 600 000.00
 Pf = 2% (PS)

$$\begin{aligned} \text{CSDG} &= \text{PSF} \times \text{Pf} \\ &= \text{R5 600 000.00} \times 2\% \\ &= \text{R112 000.00} \end{aligned}$$

Therefore, the possible workplace opportunities for this project are

Method 4 (360 credits):

St - Stipend per month : R13 000
 Mt – Mentorship per month : R7 000
 PaC - Provision for additional cost : R2 000
 NCT – Notional Cost of Training : Duration x (St + Mt + PaC)
 Duration in this case is 6 months.

$$\begin{aligned} \text{NCT} &= 6 \text{ months} \times (\text{R13 000} + \text{R7 000} + \text{R2 000}) \\ &= \text{R132 000} \end{aligned}$$

Therefore R112 000 divided by R132 000 = 0,85, so the budget can only provide 1 opportunity for Method 4 for a period of 6 months.

Note:- The professional service provider must attain or exceed the contract skills development goal in the performance of the contract or the execution of an order therefore the professional service provider must initiate a negotiation process with the Client to increase the budget or reduce the placement duration to suit the available budget for this specific case.

3.4 Non-achievement of the CSGD

Achievement towards the contract skills development goal shall be denied, should:

- a) the opportunities not be provided on site or the opportunities cannot be directly linked to the contract or order in the case of an engineering and construction works, or design and build, or develop and construct, or management contractor contracts or design by employer or an order issued in terms of such a contract;
- b) there be a failure to register all beneficiaries of the Standard with the cidb;
- c) there be a failure to submit a copy of the final contract compliance training report, within 30 days of practical completion;
- d) the following not be provided:
 - 1) the required contract compliance baseline plan, an interim contract compliance report or a final contract compliance report;
 - 2) the required mentorship plan for a candidate;
 - 3) the required training plan for learners;
 - 4) the training reports covering a period;
 - 5) the required records, specified documents and signatures;
 - 6) the structured mentorship in accordance with the requirements of the applicable professional body, statutory council or qualifying authority;
 - 7) the structured workplace learning, in accordance with the curriculum requirements of the part qualification or occupational qualification or work integrated learning requirements or prescription for professional registration for which the learner is registered;
- e) conditions of employment and rates of allowances for learners not be in accordance with legislative provisions; and
- f) the contractor does not maintain the required training records, or an audit reveals that there is insufficient information to substantiate claims for achieving the CSDG.
- g) the contractor claims for learners enrolled as beneficiaries on a programme that is funded or subsidised from another source.
- h) the contractor fails to provide sufficient evidence of disciplinary actions taken against a learner who fails to present their interim reports or credentials for assessment, when they have had sufficient structured work experience or structured mentorship to do so.

4 Compliance with requirements

4.1 General

4.1.1 The contractor shall:

- a) within 30 days of the contract coming into effect or the issuing of an order, submit to the employer's representative a contract compliance baseline training plan, taking into account the skills mix, duration and type of workers that are to be engaged;

- b) at intervals not exceeding three (3) months, submit to the employer's representative interim contract compliance training reports; and
- c) shall within 30 days of reaching completion, end of the service, the delivery date for all work required or practical completion in the case of professional service, design and construct contracts, and engineering and construction works contracts, respectively, submit to the employer's representative a final contract compliance training report

4.1.2 The information contained in the final contract compliance training report shall include the contract skills development goal achieved (in Rands) in the performance of the contract and a breakdown of the goals achieved in respect of the following:

- a) the name and contact details of the contractor,
- b) the skills mix and skills types achieved on the contract; and
- c) the names, Identity numbers and period of placement of each beneficiary.

4.1.3 The contractor shall keep records of the hours worked and registration particulars in compliance with this standard. The contractor shall allow the employer's representative to inspect or audit such training records at any time.

4.1.4 The employer's representative shall undertake suitable random audits on records to confirm compliance with requirements.

4.1.5 The learners shall be directly employed by the contractor and the contractor may enter into a contract agreement with a service provider, training provider or skills development facilitators of their choice, participating in the implementation of this standard, enabling such contractor to:

- a) prepare training plans for learners, including details of the scope of experiential work to be covered and expected outcomes;
- b) register learners with the appropriate Sector Education and Training Authority, established in terms of the Skills Development Act of 2008 (Act 37 of 2008) where applicable;
- c) manage learner registration with appropriate trade testing authorities as well as preparation for the trade test where applicable;
- d) liaise with the supervisor to monitor onsite training progress of learners;
- e) liaise with the supervisor to arrange for summative assessments at appropriate stages of the training; and
- f) liaise with the supervisor to prepare reports for the employer or employer's representative.

4.2 Structured workplace learning opportunities for learners

4.2.1 Structured workplace learning opportunities shall be aligned to the curriculum requirements set for the part or full occupational qualification or professional designation for which the learner is registered.

4.2.2 A responsible supervisor will be appointed to allocate work tasks, under the guidance of a competent person, to learners in line with their training plans.

4.2.3 Supervision associated with structured workplace learning for artisan learners shall be undertaken by an artisan in the applicable trade with a minimum of 3 years of trade specific experience.

The number of artisan learners supervised by a single supervisor shall, unless otherwise permitted by the National Artisan Moderation Body, not exceed 4 at any one time.

4.2.4 Mentoring associated with structured workplace learning for learners leading to a part or full occupational qualification other than artisan learners shall be undertaken by a person qualified in the applicable discipline and having a minimum of 3 years of post-qualification experience.

4.2.5 The contractor shall, within one month of commencing work directly related to the contract or order and in respect of each learner, submit to the employer's representative,

- a) a workplace training plan together with name of the learner's mentor and/or supervisor.
- b) proof of registration as a learner with the relevant SETA where applicable;
- c) a copy of the mentorship agreement entered into with the learner, or the company mentorship agreement entered into with the relevant qualified agency for method 3 and method 4; and
- d) shall, within two weeks of updating and revising the workplace training plan, and at the end of the structured mentorship period, submit to the employer's representative;
 - (i) a quarterly progress report,
 - (ii) a final report (including a log of exposure and interactions with the mentor), signed off by the mentor, the supervisor and the learner, demonstrating compliance with requirements,

4.2.6 Learners shall, whenever a substantial activity or training period has been completed, be required by the supervisor to complete training reports required by the relevant qualifying authority.

4.2.7 The mentor and supervisor shall sign off all reports and logbooks to allow the learner to move to other projects or employment and continue the path towards qualification.

4.3 Structured workplace learning for candidates

4.3.1 Mentoring associated with structured workplace learning for candidates shall be in accordance with the prescripts of the relevant professional body or statutory council.

4.3.2 The contractor shall:

- a) appoint a supervisor who is actively engaged in work directly associated with the contract to issue tasks, oversee their implementation and provide input to the candidate on an on-going basis;
- b) identify a suitable mentor for the candidate. If the contractor does not have an in-house mentor, the contractor shall enter into a mentoring agreement with the candidate and with an external company as required by the professional body or statutory council; and
- c) issue each candidate with a portfolio of evidence file which is to be kept up to date with all the documentation issued or prepared including the workplace training plan and all revisions thereof as well as copies of the logbook entries and training experience reports.

4.3.3 The mentor shall from time to time provide an updated workplace training plan for a candidate outlining the activities in which the candidate will be involved, including activities required by the relevant professional body or statutory council. The mentor shall require candidates to maintain a logbook/portfolio of evidence issued by the relevant professional body or statutory council. The mentor shall sign off such logbook/portfolio of evidence at quarterly presentations and progress review meetings.

NOTE: The mentor shall, where the duration of the contract or order exceeds the minimum time to register in a professional category of registration that candidates are exposed to the full range of activities and work towards

assuming the full level of responsibility recommended by the relevant professional body or statutory council. This may require rotations and secondments.

4.3.4 The contractor shall, in respect of each candidate and within one month of commencing work directly related to the contract or order, submit to the employer's representative:

- a) a workplace training plan, together with name of the candidates' mentor and supervisor;
- b) proof of registration, as a candidate, with the relevant professional body or statutory council;
- c) a register of all beneficiaries of the Standard, enrolled with the cidb;
- d) a copy of the mentorship agreement entered into with the candidate, or the company mentorship agreement entered into with a professional body or statutory council and
- e) shall, within two weeks of updating a workplace training plan and at the end of the structured mentorship period, submit to the employer's representative;
 - (i) quarterly progress reports,
 - (ii) a final report (including a log of exposure and interactions with the mentor), signed off by the mentor, the supervisor and the learner, demonstrating compliance with requirements,

4.3.5 Candidates shall be required by the mentor to complete training reports required by the relevant professional body or statutory council whenever a substantial activity or training period has been completed.

4.3.6 The mentor and supervisor shall, in the event of the contract ending, sign off all reports and logbooks to allow the candidate to move to other projects or employment.

5 Records

5.1 The contractor shall, in a timely manner and where a prescribed format is available, submit all the documentation required in terms of clause 4.

5.2 The employer's representative shall certify the value towards the contract skills development goal, if any, whenever a claim for payment is issued to the employer, and shall notify the contractor of this amount.

5.3 To satisfy the contract skills development goal, the contractor shall upon termination of the opportunities provided, certify the quantum and nature of the opportunity and shall submit the certificate, counter-certified, issued by the relevant individual to the employer's representative, for record-keeping purposes.

6 Sanctions

In the event that the contractor fails to provide a reasonable explanation to the employer for any failure to achieve the contract skills development goal, the sanctions as provided in the contract or order shall apply.

NOTE: The contract establishes the sanctions that apply. These are set out in a tender evaluation schedule, the scope of work or contract data. Sanctions where tender evaluation points are granted with respect to a tendered CSDG or where a minimum CSDG is specified are usually applied in the form of:

- a) financial penalties (low performance damages), typically formulated on the difference between the contracted CSDG and the CSDG achieved in the performance of the contract; and
- b) the issuing of completion certificates only after the certificates described in clause 5 are received.

Annex A: Incorporating this standard in a procurement document

(Informative)

A1 General

A1.1 The following clause should be added to the scope of work of a contract or order to establish requirements:

Skills development requirements

The contractor shall achieve in the performance of the contract the contract skills development goal established in this Standard for developing skills through infrastructure contracts

Note: Depending on the context and the form of contract adopted, the term contractor may be changed to “consultant” or “professional service provider” or “supplier” and the term “performance of the contract” may, where the scope of work forms part of an order, be replaced with “execution of an order”.

A1.2 Where an employer requires that employees of an organ of state be seconded to the contractor in order to be provided with structured workplace learning opportunities, in accordance with the provisions of this standard, the following clause should be included in the scope of work:

The specified number of employees of an organ of state is The employer must provide a list of persons for selection by the contractor as prescribed in the implementation guidelines. Persons selected by the contractor shall be seconded to the contractor under the terms and conditions prescribed in the implementation guidelines.

A2 Sanctions

In the event that the contractor fails to provide reasonable explanation to the employer for any failure to achieve the contract participation goal, the sanctions as agreed in the contract shall apply.

C5.8 ANNEXURE H: PLANNING SPECIFICATION FOR CONTRACTORS



Planning Document:

**C3.10: Planning Specifications For
Contractors**

Report Nº

CDC-CG-SPC-001-17

01 November 2017



DOCUMENT INFORMATION SHEET

Title of Document : *Planning Specifications for Contractors*
Type of Document : *Planning Document*
Report Number : *CDC-CG-SPC-001-17*
Prepared by : *Duaine Moroney*
Typed by : *Duaine Moroney*
Business Unit : *IDZ Infrastructure Programme (IIP)*
Prepared for : *CDC*
Date of Issue : *01 November 2017*

Copyright

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

DOCUMENT CONTROL SHEET

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

PROJECT NAME : *CDC Planning Specifications*

DOCUMENT TITLE : *Planning Specifications for Contractors*

DOCUMENT No. : *CDC-CG-SPC-001-17*

SIGNING OF THE ORIGINAL DOCUMENT

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

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 13 October 2017	Name: Duaine Moroney	Name: Hennie van der Kolf	Name: Maria van Zyl
	Signature:	Signature:	Signature:

Distribution:	CDC
----------------------	------------

REVISION CHART

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

REVISION 2	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:

REVISION 3	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:

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

Basis Of Schedule (Planning Document)

TABLE OF CONTENTS

1. CIDB Grading 1-3	1
1.1 Introduction	1
1.2 General.....	1
1.2.1 The Contractor shall comply with the requirements of this Attachment.	1
1.2.2 The following templates will be provided by the Employer and shall be used for the preparation of the construction Programme and reports:	1
1.3 Planning and Construction Programme.....	1
1.3.1 Submission.....	1
1.3.2 Activities	1
1.3.3 Logic and Sequencing.....	2
1.3.4 Equipment allocation.....	3
1.3.5 Construction Programme Commodities.....	3
1.3.6 Approval of Construction Programme.....	3
1.3.7 Revisions to the Construction Programme.....	3
1.3.8 Cash Flow	4
1.4 Progress Reporting	4
1.4.1 Weekly Progress Reporting	5
1.4.2 Progress Monitoring and Corrective Action	5
1.4.3 Monthly Status Report (Planning Aspects Only).....	5
2. CIDB Grading 4-6	7
2.1 Introduction	7
2.2 General.....	7
2.2.1 The Contractor shall comply with the requirements of this Attachment.	7
2.2.2 The following templates will be provided by the Employer and shall be used for the preparation of the construction Programme and reports:	7
2.3 Planning and Construction Programme.....	7
2.3.1 Submission.....	7
2.3.2 Logic and Sequencing.....	8
2.3.3 Man-hour allocation	9
2.3.4 Equipment allocation.....	9
2.3.5 Contractor 'S-Curve'.....	9
2.3.6 Construction Programme Commodities.....	10
2.3.7 Approval of Construction Programme.....	10
2.3.8 Revisions to the Construction Programme.....	10
2.3.9 Supplementary Schedules and Programmes	11

2.3.10	Cash Flow	11
2.4	Progress Reporting	11
2.4.1	Weekly Progress Reporting.....	11
2.4.2	Progress Monitoring and Corrective Action	12
2.4.3	Monthly Status Report (Planning Aspects Only).....	12
3.	CIDB Grading 7-9	14
3.1	Introduction	14
3.2	General.....	14
3.3	Planning and Construction Programme.....	14
3.3.1	Submission.....	14
3.3.2	Activities	14
3.3.3	Logic and Sequencing.....	15
3.3.5	Construction Programme Resources	16
3.3.6	Man-hour allocation.....	16
3.3.7	Equipment allocation.....	16
3.3.8	Contractor 'S-Curve'	16
3.3.9	Construction Programme Commodities.....	17
3.3.10	Approval of Construction Programme.....	17
3.3.11	Revisions to the Construction Programme.....	17
3.3.12	Supplementary Schedules and Programmes	18
3.3.13	Cash Flow	18
3.4	Progress Reporting	19
3.4.1	Fortnightly Progress Reporting.....	19
3.4.2	Progress Monitoring and Corrective Action	19
3.4.3	Monthly Status Report (Planning Aspects Only).....	20

1. CIDB Grading 1-3

1.1 Introduction

The Construction Programme and all associated documents as detailed in this Attachment, are an essential part of the Project control system used by the Employer's Representative in monitoring the progress of the work under the Contract. The information and data provided by the Contractor shall be reliable, accurate, timely in presentation, and in an agreed format and style that allows for ease of incorporation into the Employer's Representative's Project control system. If the contractor does not have a dedicated planner it is the responsibility of the contractor to then provide a selected individual from within their organisation which the Employer's Representative would help train in the planning field.

1.2 General

1.2.1 The Contractor shall comply with the requirements of this Attachment.

1.2.2 The following templates will be provided by the Employer and shall be used for the preparation of the construction Programme and reports:

1.2.2.1 Standard Schedule Layout

1.3 Planning and Construction Programme

1.3.1 Submission

1.3.1.1 The Construction Programme shall be a time scaled bar chart with fully continuous logic that clearly highlights the critical path(s) throughout the network.

1.3.1.2 Within the time specified in the Contract, the Contractor shall submit for the Employer's approval, a Construction Programme which represents the sequencing and methodology accepted by the Employer's Representative at the time of award and includes the milestones and key events detailed in the tender documents. The Construction Programme shall be generated using the Primavera Project Planner (P6) software package or an approved alternative and submitted in both hard copy and native (soft copy) file format.

1.3.2 Activities

1.3.2.1 The Construction Programme shall break up the work under the Contract into identifiable, structured items of work ("activities"). Each activity shall:

1.3.2.2 Be an activity of work, not a piece of equipment;

1.3.2.3 Be readily measurable for progress;

1.3.2.4 Express the logical progression of the work;

1.3.2.5 Be suitable for critical path and dependency networking;

- 1.3.2.6 Be continuous from start to finish;
- 1.3.2.7 Generally be of a single “trade” or work content;
- 1.3.2.8 The sum total of all activities shall equate the work under the Contract.

1.3.3 Logic and Sequencing

The Construction Programme shall clearly indicate the logic and sequence of activities necessary to complete the work under the Contract, including but not be limited to:

- 1.3.3.1 Duration of each activity;
- 1.3.3.2 Early start, early finish and total float of each activity;
- 1.3.3.3 Activities that lie on the critical path(s) as determined by the network;
- 1.3.3.4 Precedence relationships (logic) between activities;
- 1.3.3.5 Dates for submissions to the Employer of documents requiring review;
- 1.3.3.6 Subcontractor tendering, award and mobilisation processes;
- 1.3.3.7 Activities to be completed by others which may affect the timely completion of the Works including;
- 1.3.3.8 Issue of information, materials or equipment for use or incorporation in work;
- 1.3.3.9 Activities, dependent upon any other contractor engaged by the Employer; or
- 1.3.3.10 Review time for required documentation such as specifications, drawings, procedures and calculations.
- 1.3.3.11 Tie in activities to existing services and utilities;
- 1.3.3.12 Statutory approval dates;
- 1.3.3.13 Date for access to the Site;
- 1.3.3.14 Date for access to follow-on contractors;
- 1.3.3.15 Date for Key Events and Milestones;
- 1.3.3.16 Date for Practical Completion of the Works or each Separable Portion;
- 1.3.3.17 Manufacture and delivery durations for Contractor supplied equipment and materials, with ties to the respective installation activities, detailed into activities no longer than 2 weeks;
- 1.3.3.18 Delivery dates for Employer supplied equipment and materials, with ties to the respective installation activities, detailed into activities no longer than 2 weeks;
- 1.3.3.19 Activity durations shall be in working days, the programme calendar shall indicate public holidays, leisure days or other non-working days;

- 1.3.3.20 Off Site and on Site activities shall be clear and identifiable;
- 1.3.3.21 Calendar - the bar chart heading shall show the year, the month and the week. The bar chart shall commence on the date of Contract Award;

1.3.4 Equipment allocation

- 1.3.4.1 Special tools and mobile equipment shall be assigned to their respective activities
- 1.3.4.2 Shared equipment such as mobile equipment shall be allocated to level of effort activities within the Construction Programme.

1.3.5 Construction Programme Commodities

- 1.3.5.1 The Construction Programme site activities shall be loaded with applicable commodity quantities.
- 1.3.5.2 The Employer utilises the following commodities;
 - 1.3.5.2.1 Concrete (m³)
 - 1.3.5.2.2 Mechanical Equipment (t)
 - 1.3.5.2.3 Platework (t)
 - 1.3.5.2.4 Structural Steel (t)
 - 1.3.5.2.5 Pipework (m) & Diameter Inch's (Inch)
 - 1.3.5.2.6 Electrical and Communication Cables (m)
 - 1.3.5.2.7 Electrical & Instrumentation Terminations (Qty)

1.3.6 Approval of Construction Programme

- 1.3.6.1 The Contractor shall submit the proposed baseline Construction Programme including a native (soft copy) copy of the programme.
- 1.3.6.2 Provided the Construction Programme is in accordance with this addendum A, it will be approved as the revision '0' Baseline Construction Programme. Against which the Contractors progress will be measured.

1.3.7 Revisions to the Construction Programme

- 1.3.7.1 The Contractor shall review the Construction Programme when any one of the following events occurs:
- 1.3.7.2 Progress of the work under the Contract falls significantly behind or otherwise materially departs from that shown in the Construction Programme;
- 1.3.7.3 A variation is issued which affects the Construction Programme;

-
- 1.3.7.4 There is a change in method of working adopted by the Contractor which affects the Construction Programme; or
- 1.3.7.5 The Employer's Representative directs that the Construction Programme be revised because in the opinion of the Employer's Representative the current Construction Programme does not reflect the actual work patterns of the Contractor.
- 1.3.7.6 If any of the events listed above occurs, the Contractor shall submit for approval, within seven (7) days of the event occurring, the revised Construction Programme. Upon approval, the revised Construction Programme will become the approved baseline for all future progress updates.
- 1.3.7.7 The Contractor shall address identified deviations from the Construction Programme by either:
- 1.3.7.8 Demonstrating that the deviation does not constitute a delay; or
- 1.3.7.9 Providing a course of action to remedy the deviation.
- 1.3.7.10 The revised Construction Programme shall clearly indicate the following:
- 1.3.7.11 The differences between the revised Construction Programme and the previously approved Construction Programme; and
- 1.3.7.12 The revision number and date of issue of the revised Construction Programme.
- 1.3.7.13 At any time additional detail may be inserted into the Construction Programme at the request of either the Contractor or Employer's Representative. In such cases, the overall start and finish dates of the detail activities shall not vary from the original summary activity(s) which were replaced.
- 1.3.7.14 All revisions to the Construction Programme shall be prepared by, and at the cost of the Contractor.
- 1.3.7.15 Supplementary Schedules and Programmes
- The Employer's Representative may at any time, and at the cost and expense of the Contractor, direct the Contractor to produce supplementary documents to highlight a particular aspect of the work under the Contract.

1.3.8 Cash Flow

The Contractor shall submit to the Employer detailed cash flow forecast charts based on the Construction Programme (and any revisions) showing the anticipated monthly cash flow as represented by expected payment claim submission, not by payments received.

1.4 Progress Reporting

The cut-off, and submission dates for monthly reports will be as required by the Employer to ensure appropriate and timely integration into the Employer's overall progress reporting systems. These dates are subject to change as per the status of the project or at the discretion of the employer.

1.4.1 Progress Reporting

- 1.4.1.1 To demonstrate the actual progress of the work under the Contract the Contractor shall, on a monthly basis, update and submit to the Employer;
- 1.4.1.2 The updated Construction Programme shall show two (2) separate bars for each activity:
 - 1.4.1.2.1 The Construction Programme "baseline" activity bar.
 - 1.4.1.2.2 The current schedule activity bar identifying the currently forecast start and finish dates of the activity.
- 1.4.1.3 Deviations from the 'baseline' Construction Programme will form the basis for assessing progress and performance. Where significant deviations from the scheduled progress are being tabled in the report, the Contractor shall provide sufficient detailed written analysis and data, to adequately demonstrate the primary areas of schedule concern with short term recovery plan.
- 1.4.1.4 Overall Schedule.

1.4.2 Progress Monitoring and Corrective Action

- 1.4.2.1 Monitoring and review of the progress of the work under the Contract shall consist of an assessment of all activities currently in progress. The following shall be determined:
 - 1.4.2.1.1 Percentage complete;
 - 1.4.2.1.2 Forecast completion date;
 - 1.4.2.1.3 Deviations from the baseline programme; and
 - 1.4.2.1.4 Actions required remedying any deviations.
- 1.4.2.2 Progress reviews may be conducted to assist control of the work under the Contract. The format, content, and structure of these reviews will be agreed between the Contractor and the Employer's Representative.

1.4.3 Monthly Status Report (Planning Aspects Only)

- 1.4.3.1 In addition to the formal monthly report, the Contractor shall provide the following.
- 1.4.3.2 The report shall include but not be limited too:
 - 1.4.3.2.1 The report shall summarise progress and problems encountered during that month in respect of all parts of the work under the Contract.

-
- 1.4.3.2.2 Progress against the approved Construction Programme;
 - 1.4.3.2.3 Deviations from the Construction Programme, and in particular, the forecast completion dates of activities which should have been completed;
 - 1.4.3.2.4 Status of approvals;
 - 1.4.3.2.5 Actual or anticipated problems with corresponding action plans to mitigate / minimise their risk or impact;
 - 1.4.3.2.6 Summary of work activities planned for the following period;
 - 1.4.3.2.7 Cash flow status versus the original forecast and;
 - 1.4.3.3 The Progress Report shall be submitted for review prior to the monthly progress meetings.

2. CIDB Grading 4-6

2.1 Introduction

The Construction Programme and all associated documents as detailed in this Attachment, are an essential part of the Project control system used by the Employer's Representative in monitoring the progress of the work under the Contract. The information and data provided by the Contractor shall be reliable, accurate, timely in presentation, and in an agreed format and style that allows for ease of incorporation into the Employer's Representative's Project control system. If the contractor does not have a dedicated planner it is the responsibility of the contractor to then provide a selected individual from within their organisation which the Employer's Representative would help train in the planning field.

2.2 General

2.2.1 The Contractor shall comply with the requirements of this Attachment.

2.2.2 The following templates will be provided by the Employer and shall be used for the preparation of the construction Programme and reports:

2.2.2.1 Standard Schedule Layout

2.2.2.2 S-Curve

2.3 Planning and Construction Programme

2.3.1 Submission

2.3.1.1 The Construction Programme shall be a time scaled bar chart with fully continuous logic that clearly highlights the critical path(s) throughout the network.

2.3.1.2 Within the time specified in the Contract, the Contractor shall submit for the Employer's approval, a Construction Programme which represents the sequencing and methodology accepted by the Employer's Representative at the time of award and includes the milestones and key events detailed in the. The Construction Programme shall be generated using the Primavera Project Planner (P6) software package or an approved alternative and submitted in both hard copy and native file format.

2.3.1.3 Activities

The Construction Programme shall break up the work under the Contract into identifiable, structured items of work ("activities"). Each activity shall:

2.3.1.4 Be an activity of work, not a piece of equipment;

2.3.1.5 Be readily measurable for progress;

2.3.1.6 Express the logical progression of the work;

- 2.3.1.7 Be suitable for critical path and dependency networking;
- 2.3.1.8 Be continuous from start to finish;
- 2.3.1.9 Generally be of a single “trade” or work content;
- 2.3.1.10 Be fully resourced; and
- 2.3.1.11 The sum total of all activities shall equate the work under the Contract.

2.3.2 Logic and Sequencing

- 2.2.1 The Construction Programme shall clearly indicate the logic and sequence of activities necessary to complete the work under the Contract, including but not be limited to:
 - 2.3.2.1 Duration of each activity;
 - 2.3.2.2 Early start, early finish and total float of each activity;
 - 2.3.2.3 Activities that lie on the critical path(s) as determined by the network;
 - 2.3.2.4 Precedence relationships (logic) between activities;
 - 2.3.2.5 Dates for submissions to the Employer of documents requiring review;
 - 2.3.2.6 Subcontractor tendering, award and mobilisation processes;
 - 2.3.2.7 Activities to be completed by others which may affect the timely completion of the Works including;
 - 2.3.2.8 Issue of information, materials or equipment for use or incorporation in work;
 - 2.3.2.9 Activities, dependent upon any other contractor engaged by the Employer; or
 - 2.3.2.10 Review time for required documentation such as specifications, drawings, procedures and calculations.
 - 2.3.2.11 Tie in activities to existing services and utilities;
 - 2.3.2.12 Statutory approval dates;
 - 2.3.2.13 Date for access to the Site;
 - 2.3.2.14 Date for access to follow-on contractors;
 - 2.3.2.15 Date for Key Events and Milestones;
 - 2.3.2.16 Date for Practical Completion of the Works or each Separable Portion;
 - 2.3.2.17 Manufacture and delivery durations for Contractor supplied equipment and materials, with ties to the respective installation activities
 - 2.3.2.18 Delivery dates for Employer supplied equipment and materials, with ties to the respective installation activities

- 2.3.2.19 Activity durations shall be in working days, the programme calendar shall indicate public holidays, leisure days or other non-working days;
- 2.3.2.20 Off Site and on Site activities shall be clear and identifiable;
- 2.3.2.21 Calendar - the bar chart heading shall show the year, the month and the week. The bar chart shall commence on the date of Contract Award;

2.3.3 Man-hour allocation

- 2.3.3.1 Scheduled Direct Labour Hours – Per Activity.

For each appropriate activity in the Construction Programme, the Contractor shall allocate the associated direct labour hours.

- 2.3.3.2 Direct Labour Hours – Total.

The total of the direct labour hours per week shall be calculated after activities have been resource levelled.

- 2.3.3.3 Direct Labour Workforce Histogram

The site workforce (direct labour only) scheduled per week shall be calculated from the direct labour hours and a histogram plotted.

2.3.4 Equipment allocation

- 2.3.4.1 Special tools and mobile equipment shall be assigned to their respective activities
- 2.3.4.2 Shared equipment such as mobile equipment shall be allocated to level of effort activities within the Construction Programme.

2.3.5 Contractor ‘S-Curve’

- 2.3.5.1 The Contractor shall submit progress S-Curves for the overall Contract
- 2.3.5.2 The S-Curves shall be based upon the distribution of man-hours where attainable from within the approved Construction Programme.
- 2.3.5.3 The S-Curves shall be presented using the approved templates provided by the Employer.
- 2.3.5.4 To generate the overall Contract S-Curve each of the phases shall be weighted according to the monetary value of the phase.
- 2.3.5.5 The reporting of progress for each component shall be in the form of earned value (EV), which is the physical percent progress of the component of the work.

2.3.6 Construction Programme Commodities

The Construction Programme site activities shall be loaded with applicable commodity quantities. Offsite fabrication of structural steel, plate work and spooling of pipework shall also be reported.

2.3.6.1 The Employer utilises the following commodities;

2.3.6.1.1 Concrete (m³)

2.3.6.1.2 Mechanical Equipment (t)

2.3.6.1.3 Plate work (t)

2.3.6.1.4 Structural Steel (t)

2.3.6.1.5 Pipework (m) & Diameter Inch's (Inch)

2.3.6.1.6 Electrical and Communication Cables (m)

2.3.6.1.7 Electrical & Instrumentation Terminations (Qty)

2.3.6.2 Commodity Curves shall be presented in the same format as the S-Curves.

2.3.7 Approval of Construction Programme

2.3.7.1 The Contractor shall submit the proposed baseline Construction Programme including a native copy of the programme.

2.3.7.2 Provided the Construction Programme is in accordance with this addendum A, it will be approved as the revision '0' Baseline Construction Programme. Against which the Contractors progress will be measured.

2.3.8 Revisions to the Construction Programme

2.3.8.1 The Contractor shall review the Construction Programme when any one of the following events occurs:

2.3.8.2 Progress of the work under the Contract falls significantly behind or otherwise materially departs from that shown in the Construction Programme;

2.3.8.3 A variation is issued which affects the Construction Programme;

2.3.8.4 There is a change in method of working adopted by the Contractor which affects the Construction Programme; or

2.3.8.5 The Employer's Representative directs that the Construction Programme be revised because in the opinion of the Employer's Representative the current Construction Programme does not reflect the actual work patterns of the Contractor.

- 2.3.8.6 If any of the events listed above occurs, the Contractor shall submit for approval, within seven (7) days of the event occurring, the revised Construction Programme. Upon approval, the revised Construction Programme will become the approved baseline for all future progress updates.
- 2.3.8.7 The Contractor shall address identified deviations from the Construction Programme by either:
 - 2.3.8.8 Demonstrating that the deviation does not constitute a delay; or
 - 2.3.8.9 Providing a course of action to remedy the deviation.
- 2.3.8.10 The revised Construction Programme shall clearly indicate the following:
 - 2.3.8.10.1 The differences between the revised Construction Programme and the previously approved Construction Programme; and
 - 2.3.8.10.2 The revision number and date of issue of the revised Construction Programme.
- 2.3.8.11 The revised Construction Programme shall be accompanied by a revised S-Curve
- 2.3.8.12 At any time additional detail may be inserted into the Construction Programme at the request of either the Contractor or Employer's Representative. In such cases, the overall start and finish dates of the detail activities shall not vary from the original summary activity(s) which were replaced.
- 2.3.8.13 All revisions to the Construction Programme shall be prepared by, and at the cost of the Contractor.

2.3.9 Supplementary Schedules and Programmes

The Employer's Representative may at any time, and at the cost and expense of the Contractor, direct the Contractor to produce supplementary documents to highlight a particular aspect of the work under the Contract.

2.3.10 Cash Flow

The Contractor shall submit to the Employer detailed cash flow forecast charts based on the Construction Programme (and any revisions) showing the anticipated monthly cash flow as represented by expected payment claim submission, not by payments received.

2.4 Progress Reporting

The cut-off, and submission dates for monthly reports will be as required by the Employer to ensure appropriate and timely integration into the Employer's overall progress reporting systems. These dates are subject to change as per the status of the project or at the discretion of the employer.

2.4.1 Progress Reporting

- 2.4.1.1 To demonstrate the actual progress of the work under the Contract the Contractor shall, on a monthly basis, update and submit to the Employer;
- 2.4.1.2 The updated Construction Programme shall show two (2) separate bars for each activity:
 - 2.4.1.2.1 The Construction Programme “baseline” activity bar.
 - 2.4.1.2.2 The current schedule activity bar identifying the currently forecast start and finish dates of the activity.
- 2.4.1.3 The progress ‘S-Curves’;
- 2.4.1.4 Deviations from the ‘baseline’ Construction Programme together with the ‘S-Curves’ will form the basis for assessing progress and performance. Where significant deviations from the scheduled progress are being tabled in the report, the Contractor shall provide sufficient detailed written analysis and data, to adequately demonstrate the primary areas of schedule concern with short term recovery plan.
- 2.4.1.5 Overall Schedule.
- 2.4.1.6 2 week look ahead Schedule.

2.4.2 Progress Monitoring and Corrective Action

- 2.4.2.1 Monitoring and review of the progress of the work under the Contract shall consist of an assessment of all activities currently in progress. The following shall be determined:
 - 2.4.2.1.1 Percentage complete;
 - 2.4.2.1.2 Forecast completion date;
 - 2.4.2.1.3 Deviations from the baseline programme; and
 - 2.4.2.1.4 Actions required remedying any deviations.
- 2.4.2.2 Weekly progress reviews may be conducted to assist control of the work under the Contract. The format, content, and structure of these reviews will be agreed between the Contractor and the Employer’s Representative. The Contractor’s Weekly Progress Report will be used as the discussion tool for the weekly progress meeting.

2.4.3 Monthly Status Report (Planning Aspects Only)

- 2.4.3.1 In addition to the formal monthly report, the Contractor shall provide the following.
- 2.4.3.2 The report shall include but not be limited too:
- 2.4.3.3 The report shall summarise progress and problems encountered during that month in respect of all parts of the work under the Contract.
- 2.4.3.4 Progress against the approved Construction Programme;

-
- 2.4.3.5 Summary of progress achieved during the period using progress 'S-Curves';
 - 2.4.3.6 List of milestones achieved during the period;
 - 2.4.3.7 Status of design, procurement, off-site works, and construction;
 - 2.4.3.8 Deviations from the Construction Programme, and in particular, the forecast completion dates of activities which should have been completed;
 - 2.4.3.9 Status of approvals;
 - 2.4.3.10 Actual or anticipated problems with corresponding action plans to mitigate / minimise their risk or impact;
 - 2.4.3.11 Summary of work activities planned for the following period;
 - 2.4.3.12 Cash flow status versus the original forecast;
 - 2.4.3.13 The Progress Report shall be submitted for review prior to the monthly progress meetings.

3. CIDB Grading 7-9

3.1 Introduction

The Construction Programme and all associated documents as detailed in this Attachment, are an essential part of the Project control system used by the Employer's Representative in monitoring the progress of the work under the Contract. The information and data provided by the Contractor shall be reliable, accurate, timely in presentation, and in an agreed format and style that allows for ease of incorporation into the Employer's Representative's Project control system.

3.2 General

3.2.1 The Contractor shall comply with the requirements of this Attachment.

3.2.2 The following templates will be provided by the Employer and shall be used for the preparation of the construction Programme and reports:

3.2.3 Standard Schedule Layout

3.2.4 S-Curve

3.3 Planning and Construction Programme

3.3.1 Submission

3.3.1.1 The Construction Programme shall be a time scaled bar chart with fully continuous logic that clearly highlights the critical path(s) throughout the network.

3.3.1.2 Within the time specified in the Contract, the Contractor shall submit for the Employer's approval, a Construction Programme which represents the sequencing and methodology accepted by the Employer's Representative at the time of award and includes the milestones and key events detailed in the. The Construction Programme shall be generated using the Primavera Project Planner (P6) software package or an approved alternative and submitted in both hard copy and native file format.

3.3.2 Activities

The Construction Programme shall break up the work under the Contract into identifiable, structured items of work ("activities"). Each activity shall:

3.3.2.1 Be at level 4;

3.3.2.2 Be an activity of work, not a piece of equipment;

3.3.2.3 Be readily measurable for progress;

3.3.2.4 Express the logical progression of the work;

- 3.3.2.5 Be suitable for critical path and dependency networking;
- 3.3.2.6 Be continuous from start to finish;
- 3.3.2.7 Be located in a single geographical area;
- 3.3.2.8 Generally be of a single “trade” or work content;
- 3.3.2.9 Be compatible with quality assurance plans;
- 3.3.2.10 Be fully resourced; and
- 3.3.2.11 Be capable of producing commodity based reports
- 3.3.2.12 The sum total of all activities shall equate the work under the Contract.

3.3.3 Logic and Sequencing

- 3.3.3.1 The Construction Programme shall clearly indicate the logic and sequence of activities necessary to complete the work under the Contract, including but not be limited to:
 - 3.3.3.1.1 Duration of each activity;
 - 3.3.3.1.2 Early start, early finish and total float of each activity;
 - 3.3.3.1.3 Activities that lie on the critical path(s) as determined by the network;
 - 3.3.3.1.4 Precedence relationships (logic) between activities;
 - 3.3.3.1.5 Subcontractor tendering, award and mobilisation processes;
 - 3.3.3.1.6 Activities to be completed by others which may affect the timely completion of the Works including;
 - 3.3.3.1.7 Activities, dependent upon any other contractor engaged by the Employer; or
 - 3.3.3.1.8 Review time for required documentation such as specifications, drawings, procedures and calculations.
- 3.3.3.2 Tie in activities to existing services and utilities;
- 3.3.3.3 Statutory approval dates;
- 3.3.3.4 Date for access to the Site;
- 3.3.3.5 Date for access to follow-on contractors;
- 3.3.3.6 Date for Key Events and Milestones;
- 3.3.3.7 Date for Practical Completion of the Works or each Separable Portion;
- 3.3.3.8 Manufacture and delivery durations for Contractor supplied equipment and materials, with ties to the respective installation activities;

- 3.3.3.9 Activity durations shall be in working days, the programme calendar shall indicate public holidays, leisure days or other non-working days;
- 3.3.3.10 Off Site and on Site activities shall be clear and identifiable;
- 3.3.3.11 Calendar - the bar chart heading shall show the year, the month and the week. The bar chart shall commence on the date of Contract Award;

3.3.4 Construction Programme Resources

- 3.3.4.1 The Contractor shall submit histograms showing the direct labour required to complete the work under the Contract based on the approved Construction Programme.
- 3.3.4.2 The histograms shall be prepared from the schedule.
- 3.3.4.3 Equipment requirements / utilisation bar charts shall be submitted to the Employer for all Site plant and mobile equipment required to complete the work under the Contract.

3.3.5 Man-hour allocation

- 3.3.5.1 Scheduled Direct Labour Hours – Per Activity.
- 3.3.5.2 For each appropriate activity in the Construction Programme, the Contractor shall allocate the associated direct labour hours.
- 3.3.5.3 Direct Labour Hours – Total.
- 3.3.5.4 The total of the direct labour hours per week shall be calculated after activities have been resource levelled.
- 3.3.5.5 Direct Labour Workforce Histogram
- 3.3.5.6 The site workforce (direct labour only) scheduled per week shall be calculated from the direct labour hours and a histogram plotted.

3.3.6 Equipment allocation

- 3.3.6.1 Special tools and mobile equipment shall be assigned to their respective activities
- 3.3.6.2 Shared equipment such as mobile equipment shall be allocated to level of effort activities within the Construction Programme.

3.3.7 Contractor ‘S-Curve’

- 3.3.7.1 The Contractor shall submit progress S-Curves for the overall Contract and each of the phases of the Contract.
- 3.3.7.2 The S-Curves shall be based upon the distribution of man-hours where attainable from within the approved Construction Programme.

- 3.3.7.3 The S-Curves shall be presented using the approved templates provided by the Employer.
- 3.3.7.4 To generate the overall Contract S-Curve each of the phases shall be weighted according to the dollar value of the phase.
- 3.3.7.5 All S-Curves shall be developed using the 'Earned Value Method'. This method applies a weighted value (WV) to all measurable components of the Works.
- 3.3.7.6 The reporting of progress for each component shall be in the form of earned value (EV), which is the physical percent progress of the component of the work.

3.3.8 Construction Programme Commodities

- 3.3.8.1 The Construction Programme site activities shall be loaded with applicable commodity quantities. Commodity curves shall be produced for forecast installation and actual installation quantities from this data. Offsite fabrication of structural steel, platework and spooling of pipework shall also be reported.
- 3.3.8.2 The Employer utilises the following commodities;
 - 3.3.8.2.1 Concrete (m³)
 - 3.3.8.2.2 Mechanical Equipment (t)
 - 3.3.8.2.3 Plate work (t)
 - 3.3.8.2.4 Structural Steel (t)
 - 3.3.8.2.5 Pipework (m) & Diameter Inch's (Inch)
 - 3.3.8.2.6 Electrical and Communication Cables (m)
 - 3.3.8.2.7 Electrical & Instrumentation Terminations (Qty)
- 3.3.8.3 Commodity Curves shall be presented in the same format as the S-Curves.

3.3.9 Approval of Construction Programme

- 3.3.9.1 The Contractor shall submit the proposed baseline Construction Programme including a native copy of the programme.
- 3.3.9.2 Provided the Construction Programme is in accordance with this Attachment 10, it will be approved as the revision '0' Baseline Construction Programme. Against which the Contractors progress will be measured.

3.3.10 Revisions to the Construction Programme

- 3.3.10.1 The Contractor shall review the Construction Programme when any one of the following events occurs:

-
- 3.3.10.2 Progress of the work under the Contract falls significantly behind or otherwise materially departs from that shown in the Construction Programme;
- 3.3.10.3 A variation is issued which affects the Construction Programme;
- 3.3.10.4 There is a change in method of working adopted by the Contractor which affects the Construction Programme; or
- 3.3.10.5 The Employer's Representative directs that the Construction Programme be revised because in the opinion of the Employer's Representative the current Construction Programme does not reflect the actual work patterns of the Contractor.
- 3.3.10.6 If any of the events listed above occurs, the Contractor shall submit for approval, within seven (7) days of the event occurring, the revised Construction Programme. Upon approval, the revised Construction Programme will become the approved baseline for all future progress updates.
- 3.3.10.7 The Contractor shall address identified deviations from the Construction Programme by either:
- 3.3.10.8 Demonstrating that the deviation does not constitute a delay; or
- 3.3.10.9 Providing a course of action to remedy the deviation.
- 3.3.10.10 The revised Construction Programme shall clearly indicate the following:
- 3.3.10.11 The differences between the revised Construction Programme and the previously approved Construction Programme; and
- 3.3.10.12 The revision number and date of issue of the revised Construction Programme.
- 3.3.10.13 The revised Construction Programme shall be accompanied by a revised manning histogram and S-Curve with an additional data line called 'reforecast planned progress'.
- 3.3.10.14 At any time additional detail may be inserted into the Construction Programme at the request of either the Contractor or Employer's Representative. In such cases, the overall start and finish dates of the detail activities shall not vary from the original summary activity(s) which were replaced.
- 3.3.10.15 All revisions to the Construction Programme shall be prepared by, and at the cost of the Contractor.

3.3.11 Supplementary Schedules and Programmes

The Employer's Representative may at any time, and at the cost and expense of the Contractor, direct the Contractor to produce supplementary documents to highlight a particular aspect of the work under the Contract.

3.3.12 Cash Flow

The Contractor shall submit to the Employer detailed cash flow forecast charts based on the Construction Programme (and any revisions) showing the anticipated monthly cash flow as represented by expected payment claim submission, not by payments received.

3.4 Progress Reporting

The cut-off, and submission dates for monthly reports will be as required by the Employer to ensure appropriate and timely integration into the Employer's overall progress reporting systems. These dates are subject to change as per the status of the project or at the discretion of the employer.

3.4.1 Progress Reporting

- 3.4.1.1 To demonstrate the actual progress of the work under the Contract the Contractor shall, on a monthly basis, update and submit to the Employer;
- 3.4.1.2 The updated Construction Programme shall show two (2) separate bars for each activity:
 - 3.4.1.2.1 The Construction Programme "baseline" activity bar.
 - 3.4.1.2.2 The current schedule activity bar identifying the currently forecast start and finish dates of the activity.
- 3.4.1.3 The progress 'S-Curves';
- 3.4.1.4 Direct Manning Histograms;
- 3.4.1.5 Deviations from the 'baseline' Construction Programme together with the 'S-Curves' will form the basis for assessing progress and performance. Where significant deviations from the scheduled progress are being tabled in the report, the Contractor shall provide sufficient detailed written analysis and data, to adequately demonstrate the primary areas of schedule concern with short term recovery plan.
- 3.4.1.6 Overall Schedule.
- 3.4.1.7 2 week look ahead Schedule.

3.4.2 Progress Monitoring and Corrective Action

- 3.4.2.1 Monitoring and review of the progress of the work under the Contract shall consist of an assessment of all activities currently in progress. The following shall be determined:
 - 3.4.2.1.1 Percentage complete;
 - 3.4.2.1.2 Forecast completion date;
 - 3.4.2.1.3 Manning histograms showing actual and forecast versus baseline figures;
 - 3.4.2.1.4 Deviations from the baseline programme; and

3.4.2.1.5 Actions required remedying any deviations.

3.4.2.2 Progress reviews shall be conducted to assist control of the work under the Contract. The format, content, and structure of these reviews will be agreed between the Contractor and the Employer's Representative. The Contractor's Progress Report will be used as the discussion tool for the progress meeting.

3.4.3 Monthly Status Report (Planning Aspects Only)

3.4.3.1 In addition to the formal monthly report, the Contractor shall provide the following.

3.4.3.2 The report shall include but not be limited too:

3.4.3.2.1 The report shall summarise progress and problems encountered during that month in respect of all parts of the work under the Contract.

3.4.3.2.2 Progress against the approved Construction Programme;

3.4.3.2.3 Summary of progress achieved during the period using progress 'S-Curves' for each of the PCS elements;

3.4.3.2.4 List of milestones achieved during the period;

3.4.3.2.5 Status of construction;

3.4.3.2.6 Deviations from the Construction Programme, and in particular, the forecast completion dates of activities which should have been completed;

3.4.3.2.7 Actual or anticipated problems with corresponding action plans to mitigate / minimise their risk or impact;

3.4.3.2.8 Summary of work activities planned for the following period;

3.4.3.2.9 Cash flow status versus the original forecast;

3.4.3.3 The Progress Report shall be submitted for review prior to the monthly progress meetings.