BOOK 1 OF 2

public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

MAINTENANCE, SERVICING AND REPAIR CONTRACT

TENDER No: H24/015AI

PROJECT No: WCS 056390

REFERENCE No: H24/015AI

BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

TENDER DOCUMENT

AUGUST 2024

ISSUED BY:

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE
Central Government Offices
c/o Bosman & Madiba (Vermeulen)Streets
PRETORIA
0001

NAME OF TENDERER: .....

RETURNABLE DOCUMENT

TABLE OF CONTENTS

BOOK 1 OF 2

THE TENDER

PART T1: TENDER PROCEDURES

PART T2: RETURNABLE DOCUMENTS

THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

THE CONTRACT

PART C2: PRICING DATA

PART C3: SCOPE OF WORK

PART C4: SITE INFORMATION

TABLE OF CONTENTS

BOOK 1 OF 2

THE TENDER

PART T1: TENDER PROCEDURES

T1.1	Notice and Invitation to Tender	PA-04 (EC)
T1.2	Tender Data	DPW-03 (EC)

PART T2: RETURNABLE DOCUMENTS

T2.1	Returnable Schedules:	
T2.1.1	Resolution of Board of Directors	PA-15.1
T2.1.2	Resolution of Board of Directors to enter into Consortia or Joint Ventures	PA-15.2
T2.1.3	Special Resolution of Consortia or Joint Ventures	PA-15.3
T2.1.4	Schedule of Proposed Subcontractors	DPW-15 (EC)
T2.1.5	Particulars of Tenderer's Projects	DPW-09 (EC)
T2.1.6	Site Inspection Meeting Certificate	DPW-16 (EC)
T2.1.7	Declaration of Interest and Past Supply Chain Management Practices	PA-11
T2.1.8	B-BBEE Exempted Affidavit for Exempted Micro Enterprises	
T2.1.9	Preference Points Claim Form	PA-16
	Ownership particulars	PA-16.1 (EC)
T2.1.9	Medical Certificate for the Confirmation of Permanent Disabled Status	PA-14
T2.1.10	Record of Addenda to Tender Documents	DPW-21 (EC)
T2.1.11	Particulars of Electrical Contractor	DPW-22 (EC)
T2.1.12	Schedule for Imported Materials and Equipment	DPW-23 (EC)
T2.1.13	ANNEXURES A (Plant and Equipment)	ANNEXURES
T2.1.14	Declaration of Designated Groups for Preferential Procurement	PA-40
T2.1.15	Declaration of EPWP Programme	

THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1	Form of Offer and Acceptance	DPW-07 (EC)
C1.2	Contract Data (GCC 2015)	DPW-05 (EC)
C1.3	Variable Construction Guarantee (GCC 2015).....	DPW-10.2 (EC)
C1.4	Fixed Construction Guarantee (GCC 2015).....	DPW-10.4 (EC)

TABLE OF CONTENTS

BOOK 1 OF 2

PART C2: PRICING DATA

C2.1	Pricing Instructions	PG-02.1 (EC)
C2.2	Bills of Quantities	

PART C3: SCOPE OF WORK

C3	Scope of Work	PG-01.1 (EC)
C3.1	Standard Specifications	
C3.2	Project Specifications	
C3.3	Technical, Particular and Additional Specifications	

PART C4: SITE INFORMATION

C4.1	Site Information	PG-03-1 (EC)
C4.2	Site Layout Plans	

H24/015AI: BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

Book 1 of 2

- COVER PAGE
- TABLE OF CONTENTS
- ORGANOGRAM: DOCUMENT STRUCTURE
- T1 TENDERING PROCEDURES
  - PA-04 (EC): Notice and invitation to tender
  - DPW-03 (EC): Tender data
- T2 RETURNABLE DOCUMENTS (PA-09)
  - PA-15.1: Resolution of board of directors
  - PA-15.2: Resolution of board of directors (Consortia/JV)
  - PA-15.3: Special resolution of consortia or JV's
  - DPW-15 (EC): Schedule of proposed subcontractors
  - DPW-09 (EC): Particular of tenderer's projects
  - DPW-16 (EC): Site inspection meeting certificate
  - PA-11: Bidder's Disclosure
  - B-BBEE Exempted Affidavit for Exempted Micro Enterprises
  - PA-16 Performance points claim form
  - PA-16.1 (EC): Ownership particulars
  - PA-14: Medical certificate for the confirmation of permanent disabled status
  - DPW-21 (EC): Record of addenda to tender documents
  - DPW-22 (EC): Particulars of electrical contractor
  - DPW-23 (EC): Schedule for imported materials & equipment
  - ANNEXURES A (Plant and Equipment)
  - PA-40: Declaration of designated groups of preferential procurement
  - Declaration of EPWP Programme
- C1 AGREEMENT AND CONTRACT DATA
  - DPW-07(EC): Form of offer and acceptance
  - DPW-05 (EC): Contract data (GCC 2015)
  - DPW-10.2 (EC): Variable construction guarantee (GCC 2015)
  - DPW-10.4(EC): Fixed construction guarantee (GCC 2015)
- C2 PRICING DATA
  - PG-02.1 (EC): Pricing instructions
  - Bill of quantities
- C3 SCOPE OF WORK PG-01.1 (EC)
  - PG-01.1 (EC): Scope of work
  - Standard specifications
  - Project specifications
  - Technical and Particular and specifications
  - Additional specifications
- C4 SITE INFORMATION
  - PG-03.1 (EC): Site information
  - Locality plan
  - Drawings

C3.1 Standard Specifications

- SANS
- PW 371
- PW 343
- FPO/G61/3E
- DPW

C3.2 Project Specifications

C3.3 Technical and Particular Specifications

C3.4 Additional Specifications

- SA General maintenance
- SB Operating and maintenance manuals
- SC General decommissioning, testing and comissioning procedures
- SD General training
- SF General operation
- SH HIV/Aids requirements
- SI OHS Act: Health and safety
- SJ Covid-19 Compliance
- SN Implementation of labour-intensive infrastructure pprojects under the Expanded Public Works Programm(EPWP)
- SS Site Specific Inventory

Book 2 of 2

A BUILDING SERVICES

- AA Plumbing and drainage installations
- AB Building electrical installations
- PAA Plumbing and drainage installations

B STRUCTURAL ELEMENTS AND UNITS

- BA Roof coverings
- BB Carpentry and joinery for roofs and ceilings
- BC Waterproofing of concrete roofs
- BD Walls
- BE Floors
- BF Pest control
- PBF Pest control
- BH Fittings
- BJ Paintwork
- BK Structural concrete

C CIVIL INFRASTRUCTURE

- CA Roads
- CB Stormwater drainage
- CC Fencing and gates
- CE Water distribution networks
- CF Sewerage networks
- CG Solid waste
- CI Pressed steel tanks
- CJ Site keeping and cleaning

D RAW WATER WORKS

- DA Borehole pump systems
- DB Potable water systems
- DC Borehole siting and drilling
- DF Potable water disinfection
- DH Operation of potable water works
- DL Chlorination systems for the disinfection of drinking water at remote borehole installations
- DW Supply of water

E WASTEWATER WORKS

- EG Septic tank facilities
- EJ Water quality testing

F MECHANICAL AND ELECTRICAL EQUIPMENT AND SYSTEMS

- FD Heating ventilation & air-conditioning systems
- PFD Heating ventilation & air-conditioning systems

H SITE ELECTRICAL INFRASTRUCTURE

- HB Standby power systems
- HC Low voltage reticulation
- HD Transformers
- HE Exterior lighting systems

J FIRE FIGHTING AND SPECIALISED EXTINGUISHING SYSTEMS

- JC Conventional fire Fighting equipment
- PJC Conventional fire Fighting equipment

K WATER CONTROL PLAN (User guideline)

- KA Water audit

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

THE TENDER

PART T1: TENDER PROCEDURES

PA-04 (EC): NOTICE AND INVITATION TO TENDER

THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE INVITES TENDERS FOR:

Project title:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

Tender no:	H24/015AI	**Reference no:**	H24/015AI
Advertising date:	23 August 2024	**Closing date:**	16 September 2024
Closing time:	11:00 am	**Validity period:**	84 Calendar days

1. REQUIRED CIDB GRADING

It is estimated that tenderers should have a CIDB contractor grading designation of ***7 CE or 7 GB**** or higher.

** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable*

It is estimated that potentially emerging enterprises should have a CIDB contractor grading designation of ***select tender value range select class of construction works*** **PE** *or* ***select tender value range select class of construction works*** **PE*** or higher.

** Delete "or select tender value range select class of construction works PE" where only one class of construction works is applicable*

2. FUNCTIONALITY CRITERIA APPLICABLE YES ☒ NO ☐

Note 1: *Failure to meet minimum functionality score will result in the tenderer being disqualified.*

Functionality criteria[1]:	**Weighting factor:**

[1]The points allocated to each functionality criterion should not be generic but should be determined separately for each tender on a case by case basis.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

9.1 PROJECT WORK FORCE The bidders to provide proof of proposed Work Force that will be employed for the duration of this project. The proposal to include the following required Personnel: (i) Construction Manager with a minimum qualification of a National Diloma or higher in Built Environment and with proof of registration as a professional with SACPCMP or ECSA. (ii) Site Agent with a minimum qualification of Diploma in Built Environment. (iii) 1x Plumber (with a minimum NQF Level 1 or Higher or an Artisan Recognition of Prior Learning (ARPL) (iv) Process Controllers Class II, and Class III (Supervisor) or higher (All required) (v) 1x Electrician (vi) 1x Air- Conditioner Technician (vii) Health and Safety Officer or Health and Safety Manager. Health and Safety Officer or Manager must be registered with SACPCMP as professionals. NB: Bidder must submit a sworn affidavit that these or similar personnel will be employed after the award of the tender. NB: If any of the above services are to be sub- contracted, the bidder must attach the CSD report of the sub - contractor(s) and should indicate the details of the sub contractor(s) on the DPW 15 (EC) and DPW 22 (EC) forms and submit all necessary documents for key personnel as listed below. Bidders are to provide the following (for all above - mentioned key personnel): - CV's of each key personnel to be involved in this project - Copies of qualifications for all key personnel to be involved in this project - Trade certificates for Electrician, Plumber, and Air - Conditioner Technicians. - Copies of Certificates of Process Controllers. NB: All Certifications for key personnel should be valid or active. 1. Information submitted for all seven (7) items listed above = 5 points 2. Information submitted for any six (6) items listed above = 4 points 3. Information submitted for any five (5) items listed above = 3 points 4. Information submitted for any four (4) items listed above = 2 points 5. Information submitted for any three (3) items listed above = 1 point No information or information for 1-2 items listed above submitted = 0 point	35

9.2 RELEVANT EXPERIENCE OF THE COMPANY Bidders to provide and submit a list of comparable projects of a similar nature and monetary value of CIDB grade 6 and above with contactable references for repair and maintenance type projects currently engaged in and or completed during the past 10 years. Projects to be listed in DPW-09 EC form. For completed projects bidders are to submit together with the tender document completion certificates, and for current projects, bidders are to submit together with the tender document appointment letters. (i) Five or more completed/current projects = 5 points (ii) Four completed/current projects = 4 points (iii) Three completed/current projects = 3 points (iv) Two completed/current projects = 2 points (v) One completed/current project = 1 point No information submitted = 0 point	25
9.3 EQUIPMENTS The bidders to provide evidence of cleaning equipment, hand tools, machinery, utility vehicles, and instrumentations owned or to be hired/rented in order to carry out the project Bidders are to complete and sign the ANNEXURE A for cleaning equipment, Intrumentations, hand tools, machinery and utility vehicles. Bidders are to submit proof of equipment and hand tools owned or to be rented/hired from suppliers. Copies of vehicle(s) registrations must be submitted or agreement. An agreement between the bidder and supplier for rentals/hired items must be submitted. (You're required to submit your firm's asset register or agreement between bidder and supplier for rentals) i. Cleaning Equipments ii. Instrumentations iii. Utility vehicles iv. Machinery v. Hand tools 1. Information submitted for all five (5) items listed above = 5 points 2. Information submitted for any four (4) items listed above = 4 points 3. Information submitted for any three (3) items listed above = 3 points 4. Information submitted for any two (2) items listed above = 2 points 5. Infirmation submitted for any one (1) item listed above = 1 point No information submitted = 0 point	15

9.4 BANK RATING The bidder to provide and submit an original bank stamped rating letter or certified copy of such a letter which is not older than 3 months on the closing date of the tender. i) Bank rating of A = 5 points ii) Bank rating of B = 4 points iii) Bank rating of C = 3 points iv) Bank rating of D = 2 points v) Bank rating of E = 1 point NB: Bidders will only be scored based on the banking rating submitted of (A,B,C,D or E). NB: If a stamped bank letter with no ratings (A,B,C,D or E) is provided , the bidder will receive 0 points. NB: In the case of JV, both bidders will need to submit their bank rating letters, and the JV will score the average points from the 2 scores.	25
Total	**100 Points**

(Weights for functionality must add up to 100. Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

Minimum functionality score to qualify for further evaluation:	65

(Total minimum qualifying score for functionality is 50 Percent, any deviation below or above the 50 Percent, provide motivation below)

Land Ports of Entry are categorized as National Key Points, therefore any service provider appointed must meet high quality standards in terms of performance and service delivery within the prescribed scope, time, cost, and quality.

3. THE FOLLOWING EVALUATION METHOD FOR RESPONSIVE BIDS WILL BE APPLICABLE:

☐ Method 1 (Financial offer)	☒ Method 2 (Financial and Preference offer)

3.1. Indicate which preference points scoring system is applicable for this bid:

☒ **80/20** Preference points scoring system	☐ **90/10** Preference points scoring system	☐ **Either 80/20 or 90/10** Preference points scoring system

4. RESPONSIVENESS CRITERIA

4.1. **Indicate substantive responsiveness criteria applicable for this tender. Failure to comply with the criteria stated hereunder shall result in the tender offer being disqualified from further consideration:**

1	☒	Only those tenderers who satisfy the eligibility criteria stated in the Tender Data may submit tenders.
2	☒	Tender offer must be properly received on the tender closing date and time specified on the invitation, completed either electronically (if issued in electronic format), or by writing legibly in non-erasable ink. (All as per Standard Conditions of Tender).
3	☒	Use of correction fluid is prohibited.
4	☒	Submission of a signed bid offer as per the DPW-07 (EC).
5	☐	Submission of DPW-09 (EC): Particulars of Tenderer's Projects.
6	☐	Bidders must comply with DPW-21 (EC): Record of Addenda to tender documents, if any.
7	☐	Submission of DPW-16 signed by the authorised official and completion of bid briefing attendance register.
8	☐	The tenderer shall submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts) together with his tender.
9	☐	The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender.
10	☒	Bidders should be registered and active on CIDB with grading designated of 7CE or 7GB or higher at the closing date of the tender. In case of JV, all entities must be registered and active on CIDB.
11	☒	Attendance of compulsory briefing meeting and signing of the attendance register. Service Providers to familiarize themselves with the conditions of the site and the distance/road conditions to and from the site. This will enable them to submit a more realistic offer (tender) amount, therefore the clarification meeting is declared compulsory.
12	☒	The tenderer shall submit his/her fully priced Bills of Quantities (complete document inclusive of all parts) together with his/her tender. This project has now been classified as an emergency, and the urgent procurement of the follow-on RAMP project/contract is critical to ensure seamless and continuous implementation of the RAMP project. This will help avoid any gaps between the current and follow-on contracts, thereby maintaining the momentum and progress of the overall RAMP initiative.
13	☐	Specify other responsiveness criteria
14	☐	Specify other responsiveness criteria
15	☐	Specify other responsiveness criteria

4.2. **Indicate administrative requirements applicable for this tender. Tenderers may be required to submit the below documents where applicable.**

The Employer reserves the right to request further information regarding the undermentioned criteria. Failing to submit further clarification and/or documentation within seven (7) calendar days from request or as specifically indicated, will disqualify the tender offer from further consideration.

1	☒	Any correction to be initialled by the person authorised to sign the tender documentation as per PA 15.1 or PA 15.2 resolution of board/s of directors / or PA15.3 Special Resolution of Consortia or JV's.
2	☒	Submission of applicable (PA-15.1, PA-15.2, PA-15.3): Resolution by the legal entity, or consortium / joint venture, authorising a dedicated person(s) to sign documents on behalf of the firm / consortium / joint venture.
3	☒	All parts of tender documents submitted must be fully completed in ink and signed where required.
4	☒	Submission of (PA-11): Bidder's disclosure
5	☒	Submission of PA-16.1 (EC): Ownership Particulars
6	☒	Submission of documentation relating to **risk assessment criteria** as contained in C 2.1 of DPW-03 Tender Data.
7	☒	Submission of (PA 40): Declaration of Designated Groups.
8	☒	Submission of proof of Registration on National Treasury's Central Supplier Database (CSD). Insert the Supplier Registration Number on the form of offer, including proposed sub-contractors if any
9	☒	Data provided by the tenderer in Part 2 of DPW-04 Contract Data (JBCC 2018) or DPW-05 Contract Data (GCC 2015) whichever applicable to be fully completed.
10	☐	The tenderer shall submit his fully priced Bills of Quantities (complete document inclusive of all parts) within 14 calendar days from request.
11	☒	Upon request, submission of fingerprints obtainable from local SAPS including any other additional documentation and information required for vetting purposes.
12	☐	Upon request, submission of a fully completed security clearance application form with supporting documentation and information as required. The security clearance form will be provided by the Employer for projects requiring a security clearance.
13	☒	Submission of DPW- 09 (EC): Particulars of Tenderer's Projects
14	☒	Bidders must comply with DPW-21 (EC): Record of Addenda to tender documents, if any
15	☒	Submission of DPW-16 signed (Site inspection meeting certificate) by the authourized official and completion of bid briefing attendance register.
16	☒	Role players of references to be indicated in the DPW- 09 (EC) Particulars of Tender's Projects should be User Clients, Consultants and Principals agents. Only contactable reference numbers to appear in the DPW-09 (EC) form.
17	☒	Sworn affidavit that the smilar work force as indicated on Functionality criteria 9.1 will be employed after the award of this tender.
18	☒	Submission of copies of ID's for all key personnel who will be involved in this project and the submission of registration certficates for Construction Manager, Health and Safety Officer and or Health and Safety Manager from SACPCMP or ECSA..

4.3. **Indicate administrative requirements applicable for specific goals, Tenderers will not be required to submit the below document if not provided in the original tender proposals, Failure to comply with the criteria stated hereunder shall result in the tenderer not allocated points for specific goals.**

1	☒	Submission of (PA-16): Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022
2	☒	A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Certificate issued by a SANAS accredited service provider

5. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS:

☒ **5.1. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).

5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

8.2. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

☐

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4. ☐	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent.

	OR			Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
	5. ☐	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) 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. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899. 2003 of 9 JANUARY 2004).

6. BID EVALUATION METHOD

This bid will be evaluated according to the preferential procurement model in the PPPFA: (Tick applicable preference point scoring system)

☒ **80/20** Preference points scoring system	☐ **90/10** Preference points scoring system	☐ **Either 80/20 or 90/10** Preference points scoring system

In case where below/above R 50 000 000 is selected, the lowest acceptable tender will be used to determine the applicable preference point system.

7. ELIGIBILITY IN RESPECT OF RISK TO THE EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

7.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;
3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors;
4. Financial management: payment to suppliers and cash flow problems;
5. Quality of workmanship: extent of reworks and timeous attention to remedial works;
6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman;
7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably;
8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced;
9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract.
10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents.
11. Plant & equipment: sufficient resources on site and in time.
12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims.
13. Final account: extent to which the contractor assisted in finalising the final account.

Criterion 3: Suitably qualified and appropriately experienced human resources

Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration

will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken.

Criterion 4: Attendance of compulsory bid clarification meeting, if applicable

If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender.

7.2 Commercial risks:

The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered.

Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.

8. CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	**Applicable**
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	**Applicable**
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	**Applicable**
(d)	**cidb BUILD Programme**: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	**Applicable**

(e)	**cidb BUILD Programme:** Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.– Condition of Contract	**Applicable**
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	**Applicable**
(g)	Labour Intensive Works – Condition of Contract.	**Applicable**
(h)		**Select**
(i)		**Select**

9. COLLECTION OF TENDER DOCUMENTS

☒ Bid documents are available for free download on Departmental website: www.publicworks.gov.za or e-Tender portal www.etenders.gov.za

☒ Alternatively; Bid documents may be collected during working hours at the following address Department of Public Works Central Government Offices at Corner Bosmans and Madiba Street Pretoria. A non-refundable bid deposit of **R 700** is payable (cash only) on collection of the bid documents.

10. SITE INSPECTION MEETING

A pre-tender site inspection meeting will **be** held in respect of this tender.
Attendance of said pre- tender site inspection meeting is **compulsory**

The particulars for said pre- tender site inspection meeting or virtual bid clarification / site inspection meeting. are:

Venue:	BOESMANSNEK BORDER POST		
Virtual meeting link:	N/A		
Date:	Thursday 05 September 2024	**Starting time:**	11:00

11. ENQUIRIES

11.1. Technical enquiries may be addressed to:

DPWI Project Manager	Goodwill Lukhele	**Telephone no:**	012 406 1124
Cellular phone no	082 957 4451	**Fax no:**	N/A
E-mail	goodwill.lukhele@dpw.gov.za		

11.2. SCM enquiries may be addressed to:

SCM Official	Merven Kganyago	**Telephone no:**	012 406 2023
Cellular phone no	066 320 4889	**Fax no:**	N/A
E-mail	merven.kganyago@dpw.gov.za		

12. DEPOSIT / RETURN OF TENDER DOCUMENTS

Telegraphic, telephonic, telex, facsimile, electronic and / or late tenders will not be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

All tenders must be completed in non-erasable ink and submitted on the official forms – (forms not to be re-typed).

Tender documents may be posted to:		**Deposited in the tender box at:**
The Director-General Department of Public Works and Infrastructure Private Bag X 65 Pretoria 0001 **Attention:** **Procurement section:** Room 121 First Floor	**OR**	Department of Public Works Corner of Bosman and Madiba Street 256 Madiba Street Central Government offices - CGO Building Corner of Bosman Madiba Street Room121

DPW-03 (EC): TENDER DATA

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***
Reference no:	*H24/015Al*

Tender / Quotation no:	H24/015Al	**Closing date:**	*16 September 2024*
Closing time:	***11:00 am***	**Validity period:**	***12 Weeks (84 Calender days)***

Clause number:	
	The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement as per Government Notice No. 423 published in Government Gazette No. 42622 of 8 August 2019 and as amended from time to time. (see www.cidb.org.za). The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender. Each item of data given below is cross-referenced to the clause marked "C" in the above mentioned Standard Conditions of Tender.
C.1.1	The employer is the Government of the Republic of South Africa in its Department of Public Works and Infrastructure.
C.1.2	For this contract the three volume approach is adopted. This procurement document has been formatted and compiled under the headings as contained in the CIDB's "Standard for Uniformity in Construction Procurement." The three volume procurement document issued by the employer comprises the following: Volume 1: Tendering procedures T1.1 - Notice and invitation to tender (PA-04 EC) T1.2 - Tender data (DPW-03 EC) Volume 2: Returnable documents T2.1 - List of returnable documents (PA-09 EC) C1.1 - Form of offer and acceptance (DPW-07 EC) C1.2 – Contract Data T2.2 - Returnable schedules Volume 3: Contract Part C1: Agreement and contract data C1.2 - Contract data (Part 1: Data provided by employer) (DPW-04 EC or DPW-05 EC) C1.3 - Form of guarantee (DPW-10.1 EC / DPW-10.3EC or DPW-10.2 EC/DPW-10.4 EC) Part C2: Pricing data C2.1 - Pricing Assumptions (PG-02.2 EC or PG-02.1EC) C2.2 - Bills of Quantities / Lump sum document (if not a returnable document) Part C3: Scope of work C3 - Scope of work (PG-01.2 EC or PG-01.1EC) Part C4: Site information C4 - Site information (PG-03.2 EC or PG03.1EC)

Tender no: H24/015Al

C.1.4	The Employer's agent is:	
	Name:	***2MC Consulting Engineerst***
	Capacity:	***Private Project Manager***
	Address:	***Edenvale*** ***Highway Gardens Office Park,*** ***71 Minuach Road*** ***Edenvale, 1609***
	Tel:	***0860 262 266***
	Fax:	***086 617 4593***
	E-mail:	***Info@2mccons.co.za / pt@2mccons.co.za***

C.2.1
C.3.11

A. ELIGIBILITY IN RESPECT OF CIDB REGISTRATION:

The following tenderers who are registered with the CIDB, or are *capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated (* tenderers who are capable of being so registered, or who have applied for registration but have not yet received confirmation of such registration, must provide, with this tender, acceptable documentary proof thereof):

a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a ***7 CE*** or ***7 GB********* class of construction work; and

b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above: ***Applicable***

Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB;

2. the lead partner has a contractor grading designation in the ***select tender value range select class of construction works*** or ***select tender value range select class of construction works********* class of construction work; and

3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations for a ***7 CE*** or ***7 GB********* class of construction work

*** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable*

A contract will be entered into with a tenderer who has in his employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff: ***Applicable***

C. **FUNCTIONALITY WEIGHTING APPLICABLE TO THIS BID:**

Note: *Failure to meet minimum functionality score will result in the tenderer being disqualified.*

Functionality Criteria	***Weighting Factor***
9.1 PROJECT WORK FORCE The bidders to provide proof of proposed Work Force that will be employed for the duration of this project. The proposal to include the follwing required Personnel: (i) Construction Manager with a minimum qualification of a National Diloma or higher in Built Environment and with proof of registration as a professional with SACPCMP or ECSA. (ii) Site Agent with a minimum qualification of Diploma in Built Environment. (iii) 1x Plumber (with a minimum NQF Level 1 or Higher or an Artisan Recognition of Prior Learning (ARPL) (iv) Process Controllers Class II, and Class III (Supervisor) or higher (All required) (v) 1x Electrician (vi) 1x Air- Conditioner Technician (vii) Health and Safety Officer or Health and Safety Manager. Health and Safety Officer or Manager must be registered with SACPCMP as professionals. NB: Bidder must submit a sworn affidavit that these or similar personnel will be employed after the award of the tender. NB: If any of the above services are to be sub- contracted, the bidder must attach the CSD report of the sub - contractor(s) and should indicate the details of the sub contractor(s) on the DPW 15 (EC) and DPW 22 (EC) forms and submit all necessary documents for key personnel as listed below. Bidders are to provide the following (for all above - mentioned key personnel): - CV's of each key personnel to be involved in this project - Copies of qualifications for all key personnel to be involved in this project - Trade certificates for Electrician, Plumber, and Air - Conditioner Technicians. - Copies of Certificates of Process Controllers. NB: All Certifications for key personnel should be valid or active. 1. Information submitted for all seven (7) items listed above = 5 points 2. Information submitted for any six (6) items listed above = 4 points 3. Information submitted for any five (5) items listed above = 3 points	35

4. Information submitted for any four (4) items listed above = 2 points 5. Information submitted for any three (3) items listed above = 1 point No information or information for 1-2 items listed above submitted = 0 point	
9.2 RELEVANT EXPERIENCE OF THE COMPANY Bidders to provide and submit a list of comparable projects of a similar nature and monetary value of CIDB grade 6 and above with contactable references for repair and maintenance type projects currently engaged in and or completed during the past 10 years. Projects to be listed in DPW-09 EC form. For completed projects bidders are to submit together with the tender document completion certificates, and for current projects, bidders are to submit together with the tender document appointment letters. (i) Five or more completed/current projects = 5 points (ii) Four completed/current projects = 4 points (iii) Three completed/current projects = 3 points (iv) Two completed/current projects = 2 points (v) One completed/current project = 1 point No information submitted = 0 point	25
9.3 EQUIPMENTS The bidders to provide evidence of cleaning equipment, hand tools, machinery, utility vehicles, and instrumentations owned or to be hired/rented in order to carry out the project Bidders are to complete and sign the ANNEXURE A for cleaning equipment, Intrumentations, hand tools, machinery and utility vehicles. Bidders are to submit proof of equipment and hand tools owned or to be rented/hired from suppliers. Copies of vehicle(s) registrations must be submitted or agreement. An agreement between the bidder and supplier for rentals/hired items must be submitted. (You're required to submit your firm's asset register or agreement between bidder and supplier for rentals) i. Cleaning Equipments ii. Instrumentations iii. Utility vehicles iv. Machinery v. Hand tools 1. Information submitted for all five (5) items listed above = 5 points 2. Information submitted for any four (4) items listed above = 4 points 3. Information submitted for any three (3) items listed above = 3 points 4. Information submitted for any two (2) items listed above = 2 points 5. Infirmation submitted for any one (1) item listed above = 1 point No information submitted = 0 point	15

9.4 BANK RATING The bidder to provide and submit an original bank stamped rating letter or certified copy of such a letter which is not older than 3 months on the closing date of the tender. i) Bank rating of A = 5 points ii) Bank rating of B = 4 points iii) Bank rating of C = 3 points iv) Bank rating of D = 2 points v) Bank rating of E = 1 point NB: Bidders will only be scored based on the banking rating submitted of (A,B,C,D or E). NB: If a stamped bank letter with no ratings (A,B,C,D or E) is provided , the bidder will receive 0 points. NB: In the case of JV, both bidders will need to submit their bank rating letters, and the JV will score the average points from the 2 scores.	25
Total	**100 Points**

(Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

Minimum functionality score to qualify for further evaluation:	**65**

D. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS

☐ **D1. For procurement transaction with rand value greater than R2 000,00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed below are applicable.**

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or

			• Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or • National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☒ **D2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or

			• Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☐ **D3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.**

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

	2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
	3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
		An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
		An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) 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. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

E. ELIGIBILITY IN RESPECT OF RISK TO EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

E.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer on comparable projects during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;

	3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors; 4. Financial management: payment to suppliers and cash flow problems; 5. Quality of workmanship: extent of reworks and timeous attention to remedial works; 6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman; 7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably; 8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced; 9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract. 10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents. 11. Plant & equipment: sufficient resources on site and in time. 12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims. 13. Final account: extent to which the contractor assisted in finalising the final account. **Criterion 3: Suitably qualified and appropriately experienced human resources** Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken. **Criterion 4: Attendance of compulsory bid clarification meeting, if applicable** If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender. **E.2 Commercial risks:** The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered. Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.
C.2.7	For particulars regarding a pre-tender site inspection meeting, see Notice and Invitation to Tender T1.1

C.2.12	If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements. A tenderer may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. Provided that the tenderer's main tender offer is according to specification and would under normal circumstances be recommended for acceptance, his alternative tender offer may also be considered for the purpose of the award of the contract. Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed. Alternative tender offer permitted: **Yes ☐ No ☒**
C.2.13.2	The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the Returnable Documents back to the Department.
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are as per Notice and Invitation to Tender T1.1.
C.2.13.6 C.3.5	A two-envelope procedure will not be followed.
C.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1.
C.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1.
C2.16.3	Omit the wording of the last sentence for those projects which are subject to CPAP
C.2.18	The tenderer will be required to submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts): ☒ Together with his tender; or ☐ The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender and thereafter submit the fully completed Bills of Quantities within fourteen (14) calendar days of the date requested to do so prior to the award of the contract.
C.2.19	Access shall be provided for inspections, tests and analysis as may be required by the Employer.
C.3.4.1 C.3.4.2	The location for opening of the tender offers, immediately after the closing time thereof shall be at: ***Department of Public Works and Infrastructure*** ***Corner of Bosman and Madiba Street*** ***256 Madiba Street*** ***Central Government Offices - CGO Building***
C.3.8	The words "responsive tender" and "acceptable tender" shall be construed to have the same meaning.

C.3.9.3	Omit the wording and replace with the following: "Notify the tenderer of all errors, omissions and/or rate imbalances that are identified in the tender offer and request the tenderer to, within a stipulated time, accept the total of prices as corrected in accordance with C.3.9.4."
C.3.9.4	Omit the wording of the first sentence and replace with the following: "In cases where tender offers contain errors, omissions and/or rate imbalances, these are to be corrected as follows:"
C.3.9.4	Add sub paragraph c) to C.3.9.4, as follows: "c) If the tenderer does not accept the corrected tender offer, or cannot reach consensus with the Employer on a corrected tender offer, the tender is to be classified as not acceptable/non responsive and removed from further contention."
C.3.11.1	The procedure for the evaluation of responsive tenders is Method 2: Financial Offer and Preference.
C.3.13	Add the following to sub paragraph a), as follows: The tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004) as a person prohibited from doing business with the public sector;
C.3.17	Provide to the successful tenderer one copy of the signed contract document.

PART T2: RETURNABLE DOCUMENTS

PA-15.1: RESOLUTION OF BOARD OF DIRECTORS

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid / Tender to the Department of Public Works in respect of the following project:

   _____

   (Project description as per Bid / Tender Document)

   Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as: _____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorised to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

17			
18			
19			
20			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must, where possible, be signed by <u>all</u> the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

PA-15.2: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

_____

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

   _____

   _____

   (List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

   to the Department of Public Works in respect of the following project:

   _____

   _____

   (Project description as per Bid /Tender Document)

   Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as: _____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

   Physical address: _____

   _____

   _____

   _____ (code)

Postal Address: _____

_____

_____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed

Note:

1. ** Delete which is not applicable.*
2. *NB: This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

PA-15.3: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

7. _____

_____

8. _____

_____

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

RESOLVED that:

A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Public Works in respect of the following project:

_____

_____

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ *(Bid / Tender Number as per Bid /Tender Document)*

B. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ *(Position in the Enterprise)*

and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

_____

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.

F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: _____

_____

_____

_____ (Postal code)_____

Postal Address: _____

_____

_____

_____(Postal code)_____

Telephone number: _____

Fax number: _____

PA-15.3: Special Resolution of Consortia or Joint Ventures

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

The bidding enterprise hereby absolves the Department of Public Works & Infrastructure from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must be signed by <u>all</u> the Duly Authorised Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of Resolution PA-15.2.*
3. *Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.*
4. *Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).*

DPW-15 (EC): SCHEDULE OF PROPOSED SUBCONTRACTORS

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender no:	*H24/015AI*	**Reference no:**	*H24/015AI*

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor
1			
2			
3			
4			
5			

Name of representative	**Signature**	**Capacity**	**Date**

Name of organisation:	

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

Department:
REPUBLIC OF SOUTH AFRICA

DPW-09 (EC): PARTICULARS OF TENDERER'S PROJECTS

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender / quotation no:	H24/015AI	**Closing date:**	16 September 2024
Advertising date:	23 August 2024	**Validity period:**	84 days

1. PARTICULARS OF THE TENDERER'S CURRENT AND PREVIOUS COMMITMENTS

1.1. Current projects

Projects currently engaged in		**Name of Employer or Representative of Employer**	**Contact tel. no.**	**Contract sum**	**Contractual commence-ment date**	**Contractual completion date**	**Current percentage progress**
1							
2							
3							
4							
5							
6							
7							
8							

1.2. Completed projects

Projects completed in the previous 5 (five) years		Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commence-ment date	Contractual completion date	Date of Certificate of Practical Completion
1							
2							
3							
4							
5							
6							
7							
8							
9							

Name of Tenderer	Signature	Date

REPUBLIC OF SOUTH AFRICA

DPW-16 (EC): SITE INSPECTION MEETING CERTIFICATE

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender / Quotation no:	*H24/015Ai*	**Reference no:**	*H24/015Ai*
Closing date:	*16 September 2024*		

This is to certify that I, _____ representing

_____ in the capacity of

_____ visited the site on:

Thursday 05 September 2024

I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am satisfied with the description of the work and explanations given at the site inspection meeting and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

Name of Tenderer	Signature	Date

Name of DPW Representative	Signature	Date

PA-11: BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest (1) in the enterprise, employed by the state?

YES / NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

(1) the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?

YES / NO

2.2.1 If so, furnish particulars:

.....

.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES / NO

2.3.1 If so, furnish particulars:

.....

.....

3 DECLARATION

I, the undersigned, (name).....
in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium2 will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

---

2 Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....	.....
Signature	Date
.....	.....
Position	Name of bidder

This form has been aligned with SBD4

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

PA-16: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

---

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 **Preference Points System to be applied**

(*tick whichever is applicable*).

☒ The applicable preference point system for this tender is the **80/20** preference point system.

☐ The applicable preference point system for this tender is the **90/10** preference point system.

☐ Either the **90/10** or **80/20** preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 **Points for this tender shall be awarded for:**

1.3.1 Price; and

1.3.2 Specific Goals

1.4 **The maximum points for this tender are allocated as follows:**

CHOOSE APPLICABLE PREFERENCE POINT SCORING SYSTEM	☒ 80/20	☐ 90/10
PRICE	80	90
SPECIFIC GOALS	20	10
Total points for Price and Specific Goals	100	100

1.5 **Breakdown Allocation of Specific Goals Points**

☐ **1.5.1. For procurement transaction with rand value greater than R2 000, 00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

			and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or • National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☒ **1.5.2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.**

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or

			• Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).

5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

1.5.3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 3 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51%	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

	owned by black women (mandatory)		
An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) 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. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

1.6 Failure on the part of the tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals, if the service provider/ tenderer did not submit proof or documentation required to claim for specific goals will be interpreted to mean that preference points for specific goals are not claimed.

1.7 The organ of state reserves the right to require of a service provider/tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations,

competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \quad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1,2 and 3 above as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 4: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people	4	10		
2. Located in a specific Local Municipality or District Municipality or Metro or	2	2		

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Province area for work to be done or services to be rendered in that area				
3. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black women	2	4		
4. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people with disability	2	2		
5. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black youth.*	2	2		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number: .....

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company

☐ State Owned Company
[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....

DATE: .....

ADDRESS: .....

.....

.....

.....

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

B-BBEE EXEMPTED AFFIDAVIT FOR EXEMPTED MICRO ENTERPRISES
(ISSUED IN TERMS OF THE AMENDED CONSTRUCTION SECTOR CODE)

(Gazette Vol. 630 No. 41287)
Issued in terms of paragraph 3.6.2.4.1 (B)

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1) The contents of this statement are to the best of my knowledge a true reflection of the facts.
2) I am a Member ☐ / Director ☐ / Owner ☐ **(Select one)** of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:			
Trading Name (If Applicable):			
Registration Number:			
Enterprise Physical Address:			
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):			
Nature of Construction Business:	**BEP** (Built Environment Professional)	**Contractor**	**Supplier**
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – who are citizens of the Republic of South Africa by birth or descent; or who became citizens of the Republic of South Africa by naturalization before 27 April 1994; or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"		
Definition of "Black Designated Groups"	"Black Designated Groups" means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the		

3) I hereby declare under Oath that as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,

- The Enterprise is _____% Black Owned
- The Enterprise is _____% Black Female Owned
- The Enterprise is _____% Owned by Black Designated Group (provide Black Designated Group Breakdown below as per the definition in the table above)

- Black Youth % _____%
- Black Disabled % _____%
- Black Unemployed % _____%
- Black People living in Rural areas % _____%
- Black Military Veterans % _____%

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

B-BBEE EXEMPTED AFFIDAVIT FOR EXEMPTED MICRO ENTERPRISES (ISSUED IN TERMS OF THE AMENDED CONSTRUCTION SECTOR CODE)

4) Based on the ☐ Financial Statements or ☐ Management Accounts and other information available on the latest financial year-end of _____/_____/_____, (format: day/month/year) the annual Total Revenue was less than the applicable amount confirmed by ticking the applicable box below (Select applicable).

BEP	R1.8 million	
Contractor	R3.0 million	
Supplier	R3.0 million	

If the turnover exceeds the applicable amount in the table above then this affidavit is no longer applicable and an EME certificate must be obtained from a rating agency accredited by SANAS or when applicable a B-BBEE Verification Professional Regulator appointed by the Minister of Trade and Industry.

- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box below.**

100% Black Owned	**Level One** (135% B-BBEE procurement recognition level)	
At least 51% Black Owned	**Level Two** (125% B-BBEE procurement recognition level)	
At least 30% Black Owned	**Level Four** (100% B-BBEE procurement recognition level)	
Less than 30% Black Owned	**Level Five** (80% B-BBEE procurement recognition level)	

5) I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.

6) The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature_____

Date: _____

_____
Commissioner of Oaths
Signature & stamp

Commissioner of Oath Stamp

Effective date: 21 July 2023

PA-16.1 (EC): OWNERSHIP PARTICULARS

NB: 1. This form is to be read with the Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), the Preferential Procurement Regulations, 2011, the Notice and Invitation to Tender and the Tender Data pertaining to this Tender, and completed according to the definitions and information contained in said documents.

2. **Failure to complete this form may result in the tender being disqualified.**

Project title:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)
Tender no:	H24/015Al

1. PARTICULARS OF TENDERER

Name of Tendering Entity (the Tenderer):

.....

(must correspond with the Form of Offer and Acceptance DPW-07 (EC) in Section C1.1)

Physical Address:	**Postal Address:**
.....	.....
.....	.....
.....	.....
.....	.....

Company/CC Registration No:	**Tenderer's Income Tax Reference No:**
.....	.....
Company VAT Registration No:	
.....	

Name of the duly authorized Representative of the Tenderer: .....

(must correspond with the Resolution PA-15.1, PA-15.2 and/or PA-15.3)

Telephone:	**Facsimile:**
.....	.....

Is the Tenderer a ☐ public* or ☐ private company?

*(*Preference points may not be awarded to public companies)*

PA-16.1 (EC):

2. LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP, PRE 1994 ELECTION FRANCHISE-STATUS AND OWNERSHIP, AS RELEVANT

Name #	Identity/Registration Number	Citizenship ##	HDI-Status ### Qualify as HDI by virtue of not having had any franchise in elections prior to 1983 or 1994	Date of Ownership	Percentage Owned	Percentage Voting	Percentage of time devoted to the Tendering Entity
1.			☐ Yes ☐ No				
2.			☐ Yes ☐ No				
3.			☐ Yes ☐ No				
4.			☐ Yes ☐ No				
5.			☐ Yes ☐ No				
6.			☐ Yes ☐ No				
7.			☐ Yes ☐ No				
8.			☐ Yes ☐ No				
9.			☐ Yes ☐ No				
10.			☐ Yes ☐ No				
11.			☐ Yes ☐ No				
12.			☐ Yes ☐ No				

\# where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number
\## state date of South African citizenship obtained
\### state "Yes" or "No" (refer to definitions contained in the PPPF Act, 2000 (Act 5 of 2000) and the Preferential Procurement Regulations, 2011)

PA-16.1 (EC):

3 The following documentation must be included in the tender as part of the Returnable Documents. Failure to provide the said documentation may result in the tender being disqualified.

Legal Status of Tendering Entity: **If the Tendering Entity is:**	**Documentation to be submitted with the tender:**
a. A Close Corporation, incorporated under the Close Corporation Act, 1984 (Act 69 of 1984)	Certified copies of the Founding Statement – CK1
b. A private Company having share capital, incorporated under the Companies Act, 1973 (Act 61 of 1973) [including Companies incorporated under Art 53(b)]	Certified copies of: i. Certificate of Incorporation – CM1, and ii. Shareholders Certificates of all Members of the Company, plus a signed statement of the Company's Auditor, certifying each Member's ownership /shareholding percentage relative to the total.
c. A private Company having share capital, incorporated under the Companies Act, 1973 (Act 61 of 1973) in which any, or all, shares are held by another Close Corporation or Company with or without share capital	Certified copies of documents referred to in a. and/or b. above in respect of all such Close Corporation(s) and/or Company(ies).
d. A public Company having share capital, incorporated under the Companies Act, 1973 (Act 61 of 1973) [including Companies incorporated under Art 21]	A signed statement of the Company's Secretary confirming that the Company is a public Company.
e. A natural person or a Partnership	Certified copy of the Identity Document of: i. such natural person, or ii. each of the Partners to the Partnership.
f. A Trust	Deed of Trust.

PA-16.1 (EC):

4. Identify by name, HDI-status and length of service, those individuals (including Owners and non-Owners) responsible for the day-to-day management and business decisions:

	Name	HDI-status ###			Length of service (years)
		Qualify as HDI by virtue of not having had any franchise in elections prior to 1983 or 1994	Qualify as HDI by virtue of being female	Qualify as HDI by virtue of having a disability	
FINANCIAL DECISIONS					
Cheque signing Signing & Co-signing for loans		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Acquisition of lines of credit		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Sureties		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Major purchase or acquisitions		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Signing contracts		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
MANAGEMENT DECISIONS					
Estimating		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Market and sales operations		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Hiring and firing of management personnel		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Supervision of office personnel		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Supervision of Field / Production activities		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	

state "Yes" or "No" (refer to definitions contained in the PPPF Act, 2000 (Act 5 of 2000) and the Preferential Procurement Regulations, 2011)

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

PA-16.1 (EC):

5. **If this tender offer is submitted by a Consortium or Joint Venture, provide the following information regarding the Participation Parameter of each of the Tendering entities relative to the project tendering for:**

Name of Consortium / Joint Venture Partner	Participation Parameter expressed as a percentage
1.	
2.	.....%
3.	.....%
4.	.....%
5.	.....%
	.....%

NB: If submitting a tender offer in Consortium or Joint Venture, a copy of the proposed Consortium or Joint Venture Agreement must be submitted together with the Offer for scrutiny purposes during the Evaluation stage. All other requirements for deliverable documents pertaining to Consortium / Joint Ventures, as described in the Tender Data, must, in addition hereto, be adhered to. Information required in Sections 1 to 5 of this form must be provided separately in respect of each Consortium or Joint Venture Partner.

6. **List the following personnel or external firms who provide the following services:**

Service	Name	Contact Person	Telephone
Accounting			
Legal			
Auditing			
Banking			
Insurance			

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

7. DECLARATION:

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, hereby confirms that:

7.1 The information and particulars contained in this Affidavit are true and correct in all respects;

7.2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), the Preferential Procurement Regulations, 2011, and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;

7.3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;

7.4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;

7.5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

7.6 The Tenderer understands that, once the tender herein has been awarded and it is later detected by the Employer that a preference relating to Ownership in terms of the Act and Regulations has been intentionally misrepresented or fraudulently claimed, the Employer will have recourse against such party as stipulated in Regulation 15 of the Preferential Procurement Regulations, 2011 and/or to impose a penalty amount equal to Y%, of the Offered Total of Prices (inclusive of Value Added Tax), tendered in the Form of Offer and Acceptance (section C1.1), calculated separately for each Ownership category misrepresented or fraudulently claimed; where Y is the maximum number of points allocated for each individual Ownership description provided in the Notice and Invitation to Tender (PA-04 EC), to a combined maximum of 10%. Furthermore: failure to achieve the tendered Contract Participation Goal will be penalized by a penalty amount as described in the Tender and Contract Conditions Pertaining to Contract Participation Goal (Participation of Targeted Enterprises) (PA-16.2 EC).

Signed by the Tenderer

Name of representative	**Signature**	**Date**

PA-14: MEDICAL CERTIFICATE FOR THE CONFIRMATION OF PERMANENT DISABLED STATUS

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender / Bid no:	*H24/015AI*	**Reference no:**	*H24/015AI*

I, _____ (*surname and name*),

identity number,_____ do hereby declare that I am a registered medical practitioner, with my practice number being _____, practising at _____ _____(*Physical or postal addresses*)

declare that I have examined Mr. / Ms. _____,

identity number _____ and have found the said person to be permanently disabled or having a recurring disability.

"Disability" means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being." –

The nature of the disability is as follows:

_____

_____

_____

Thus signed at _____ on this _____ day of _____ 20____

_____ _____

Signature Date

OFFICIAL STAMP OF MEDICAL PRACTITIONER

Department:
REPUBLIC OF SOUTH AFRICA

DPW-21 (EC): RECORD OF ADDENDA TO TENDER DOCUMENTS

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender no:	*H24/015AI*	**Reference no:**	*H24/015AI*

1. I / We confirm that the following communications received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

Name of Tenderer	Signature	Date

2. I / We confirm that no communications were received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents.

DPW-21 (EC): Record of addenda to tender documents

Name of Tenderer	Signature	Date

REPUBLIC OF SOUTH AFRICA

DPW-22 (EC): PARTICULARS OF ELECTRICAL CONTRACTOR

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender no:	H24/015AI	**Reference no:**	**H24/015AI**

Name of Electrical Contractor:	
Address:	
Electrical Contractor registration number at the Department of Labour	

Name of Tenderer	Signature	Date

REPUBLIC OF SOUTH AFRICA

DPW-23 (EC): SCHEDULE FOR IMPORTED MATERIALS AND EQUIPMENT

Project title:	*BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)*		
Tender no:	*H24/015AI*	**Reference no:**	*H24/015AI*

This schedule should be completed by the tenderer. *(Attach additional pages if more space is required)*

Item	Material / Equipment	Rand (R) (Excluding VAT)
1.		R
2.		R
3.		R
4.		R
5.		R
6.		R

Provide additional list if space provided is insufficient.

The Contractor shall list imported items, materials and/or equipment which shall be excluded from the Contract Price Adjustment Provisions (if applicable) and shall be adjusted in terms of currency fluctuations only. Copies of the supplier's quotations for the items, materials or equipment (provided that such costs shall not be higher than the relevant contract rate as listed above) should be lodged with the Principal Agent / Engineer of the Department of Public Works and Infrastructure within 60 (sixty) days from the date of acceptance of the tender. No adjustment of the local VAT amount, nor the contractor's profit, discount, mark-up, handling costs, etc. shall be allowed.

These net amounts will be adjusted as follows:

FORMULA:

The net amount to be added to or deducted from the contract sum:

$$A = V\left(\frac{Z}{Y} - 1\right)$$

A = the amount (R) of adjustment

V = the net amount (supplier's quotation) (R) of the imported item

Y = exchange rate at the closing date of tender submission

Z = exchange rate on the date of payment.

Name of Tenderer	Signature	Date

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

ANNEXURE A

(BIDDERS TO ROVIDE EVIDENCE OF INSTRUMENTATIONS, HAND TOOLS, MACHINERY, CLEANING EQUIPMENTS AND UTILITY VEHICLES OWNED OR TO BE HIRED/RENTED IN ORDER TO CARRY OUT THE PROJECT)

NOTE 1: FAILURE TO COMPLETE AND SUBMIT THIS FORM WILL RESULT BIDDERS NOT TO BE SCORED FOR FUNCTIONALITY CRITERIA NO. 9.3

NOTE 2: BIDDERS ARE NOT ALLOWED TO REPLICATE THIS ANNEXURE A

NOTE 3: IF ITEMS MARKED OWNED/RENTED ON ANNEXURE A, PROOF MUST BE PROVIDED

Description	Quantity	Owned	Outsourced
Instrumentation for testing of drinking water			
Bench top potentiometer, accurate and precise to at least 0,1 pH unit, including reference electrode and glass sensor or combination electrode;	3		
Electrical conducting meter, with error not exceeding 1 % or 0,1 m S/m;	3		
Thermometer covering the range 23 °C < T < 27 °C accurate and capable of being read to the nearest 0,1 °C;	3		
Magnetic stirrer with PTFE (Teflon) stirring bars;	3		
3 x 1 000 millilitre Imhoff cones with wooden rack;	3		
5 x 1 000 millilitre glass bottles with ground stopper;	3		
Turbidity meter	3		

Cleaning Equipment's	Quantity	Owned	Outsourced
Industrial hoover vacuum cleaner	6		
Numatic rotary disk floor scrubber/polisher	6		
Mega mobs (to be continuous supplied and to be sufficient for the duration of the contract period)	30		
Double mopping buckets and wringler 50 litre (to be continuously supplied and to be sufficient for the duration of the contract period)	9		
Platform Broom (to be continuously supplied and to be sufficient for the duration of the contract period)	15		
Multi-purpose cleaner / All-purpose cleaner concentrate or SABS approved General Purpose cleaner to be supplied in 25 litres (to be continuously supplied and to be sufficient for the duration of the contract period)	50		

Utility Vehicles	Quantity	Owned	Outsourced
4x4 LDV's	3		
2500l Fuel Trailer	1		
Machinery	**Quantity**	**Owned**	**Outsourced**
Plate Compacter	1		
Poker drive unit	2		
Concrete Mixer	2		

Hand tools	Quantity	Owned	Outsourced
Wheel barrows	4		
Tool boxes with hammers, Pliers, Screwdrivers, spanners etc.	5		
Step ladders	4		
Grass cutting machines	15		
Chainsaw machines for cutting and trimming trees	3		

NAME OF REPRESENTATIVE:	SIGNATURE:	DATE:
.....	.....	.....

Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: H24/015AI

Name of Tenderer .....

☐ EME[1] ☐ QSE[2] ☐ Non EME/QSE (tick applicable box)

1. **LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.**

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in Rural (R) / Under Developed Area (UD) / Township (T) / Urban (U).	Indicate if military veteran
1.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
2.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
3.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
4.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
5.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
6.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
7.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
8.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
9.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
10.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
11.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
12.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No

\# Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number
\## State date of South African citizenship obtained (not applicable to persons born in South Africa)

[1] EME: Exempted Micro Enterprise
[2] QSE: Qualifying Small Business Enterprise

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: H24/015AI

2. DECLARATION:

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, hereby confirms that:

1 The information and particulars contained in this Affidavit are true and correct in all respects;

2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;

3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;

4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;

5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

Signed by the Tenderer

Name of representative	**Signature**	**Date**

public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DECLARATION – EPWP PROGRAMME

I _____ from the company

_____

Hereby Undertake To Comply To:

1. **LABOUR INTENSIVE CONTRUCTION METHODS (LIC)**

   1.1. Comply To Implementation Of LIC B.O.Q Items Specified Elsewhere in The Tender Documents

2. **RECRUITMENT AND PLACEMENT OF EPWP NYS PARTICIPANTS (Not Applicable)**

   2.1. Recruitment, Placement And Exposure Training Of ___ (___) Participants

   2.2. Comply To EPWP B.O.Q, Specifications And Code Of Good Practice

3. **RECRUITMENT AND PLACEMENT OF LOCAL LABOURERS**

   3.1. Recruitment And Placement Of 30 (Thirty) Local Labourers

   3.2. Comply With Applicable Wage Order/Determination or Agreement, in Terms of Labour Relations Act or Wage Act.

4. **COMPLY TO EPWP MONTHLY REPORTING REQUIREMENTS**

   Monthly, Prepare And Submit Below EPWP Reports Attached To Monthly Payments Certificate:

   4.1. All Employees and EPWP Participants Contracts
   4.2. All Employees and EPWP Participants Certified SA ID Copies
   4.3. All Employees and EPWP Participants Attendance Registers
   4.4. All Employees and EPWP Participants Proof of Payment
   4.5. EPWP Reports Populated on Standard Templates

5. **PENALTY FOR NON COMPLIANCE**

   Acknowledge Non Compliance Penalty of R 3000.00 (Three Thousands Rand) Per Month Per Participants

Signed by : _____
Director of the Company

Company name : _____

Date : _____

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

REPUBLIC OF SOUTH AFRICA

DPW-07 (EC): FORM OF OFFER AND ACCEPTANCE

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender / Quotation no:	**H24/015AI**	**Reference no:**	***H24/015AI***

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:
BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

The Tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

THE TOTAL OFFER INCLUSIVE OF ALL APPLICABLE TAXES ("All applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies) IS:

Rand (in figures) R .....

Rand (in words).....

.....

.....

The amount in words takes precedence over the amount in figures. The award of the tender may be subjected to further price negotiation with the preferred tenderer(s). The negotiated and agreed price will be considered for acceptance as a firm and final offer.

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the tender data, whereupon the Tenderer becomes the party named as the Contractor in the conditions of contract identified in the contract data.

THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company or Close Corporation: .... And: Whose Registration Number is: ..... And: Whose Income Tax Reference Number is: ..... CSD supplier number:.....	**OR**	Natural Person or Partnership: .... Whose Identity Number(s) is/are: ..... Whose Income Tax Reference Number is/are: .... CSD supplier number:.....

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".
**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

Tender / Quotation no: H24/015Al

AND WHO IS (if applicable):	
Trading under the name and style of:	
AND WHO IS:	
Represented herein, and who is duly authorised to do so, by: Mr/Mrs/Ms: ..... In his/her capacity as:	**Note:** **A Resolution / Power of Attorney, signed by all the Directors / Members / Partners of the Legal Entity must accompany this Offer, authorising the Representative to make this offer.**

SIGNED FOR THE TENDERER:

Name of representative	Signature	Date

WITNESSED BY:

Name of witness	Signature	Date

This Offer is in respect of: (Please indicate with an "X" in the appropriate block)

The official documents ..... ☐

The official alternative ..... ☐

Own alternative (only if documentation makes provision therefore) ..... ☐

(N.B.: Separate Offer and Acceptance forms are to be completed for the main and for each alternative offer)

SECURITY OFFERED:

(a) the Tenderer accepts that in respect of contracts up to R1 million, a payment reduction** of 5% of the contact value (excluding VAT) will be applicable and will be deducted by the Employer in terms of the applicable conditions of contract

(b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below:

(1) cash deposit of 10 % of the Contract Sum (excluding VAT) **Yes** ☐ **No** ☐

(2) variable construction guarantee of 10 % of the Contract Sum (excluding VAT) **Yes** ☐ **No** ☐

(3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT) **Yes** ☐ **No** ☐

(4) cash deposit of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) **Yes** ☐ **No** ☐

(5) fixed construction guarantee of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) **Yes** ☐ **No** ☐

NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 35 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

Tender / Quotation no: H24/015Al

The Tenderer elects as its *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served, as (physical address):

.....

.....

Other Contact Details of the Tenderer are:

Telephone No..... Cellular Phone No. .....

Fax No .....

Postal address .....

Banker ..... Branch.....

Registration No of Tenderer at Department of Labour .....

CIDB Registration Number: .....

ACCEPTANCE

By signing this part of this form of offer and acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the Tenderer's offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

Part C1 Agreement and contract data, (which includes this agreement)
Part C2 Pricing data
Part C3 Scope of work
Part C4 Site information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The Tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five (5) working days of the date of such receipt notifies the employer in writing of any reason why he/she cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

For the Employer:

Name of signatory	Signature	Date

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".
**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

Tender / Quotation no: H24/015AJ

Name of Organisation:	Department of Public Works and Infrastructure
Address of Organisation:	

WITNESSED BY:

Name of witness	Signature	Date

Schedule of Deviations

1.1.1. Subject:
Detail:

1.1.2. Subject:
Detail:

1.1.3. Subject:
Detail:

1.1.4. Subject:
Detail:

1.1.5. Subject:
Detail:

1.1.6. Subject:
Detail:

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".
**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

DPW-05: (EC) CONTRACT DATA - GCC 2015: 3RD EDITION

Project title:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)				
Tender no:	***H24/015AI***	**WCS no:**	**056390**	**Reference no:**	***H24/015AI***

The Conditions of Contract applicable to this Contract are clauses 1 to 10 and contract price adjustment schedule of the GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS, THIRD EDITION (2015) prepared by The South African Institution of Civil Engineering Private Bag X200, Halfway House, 1685.

Contractors are cautioned to read the GCC Third Edition (2015) and Contract Data [DPW-05 (EC)] together as some clauses in the GCC Third Edition (2015) have been amended in the Contract Data [DPW-05 (EC)]

Specific data, which together with these General Conditions of Contract, collectively describe the risks, liabilities and obligations of the contracting Parties and the procedures for the administration of the Contract. Clauses as amended in the Contract Data amends or replaces the corresponding clauses in the GCC Third Edition (2015).

Copies of these conditions of contract may be obtained through *www.saice.org.za*.

CONTRACT VARIABLES

THE SCHEDULE (Contract Data [1.1.1.8])

The **schedule** is the listed variables in this agreement and contains all variables referred to in this document including specific changes made to **GCC Third Edition (2015)** documentation. It is divided into part 1: contract data completed by the **employer** and part 2: contract data completed by the **contractor**. Part 1 must be completed in full and included in the tender documents. Both the part 1 and part 2 form part of this **agreement**

Spaces requiring information must be filled in, shown as 'not applicable' but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the **schedule**. Key cross reference clauses are italicised in *[ ]* brackets

PART 1: CONTRACT DATA COMPLETED BY THE EMPLOYER:

A PROJECT INFORMATION

A 1.0 Works [1.1.1.35]

Works description	Refer to document ***PG01.1 (EC) – Scope of Works*** for detailed description
36 Months for the Maintenance and Repairs of Building, Civil, Mechanical and Electrical Infrastructure and Installations	

A 2.0 Site [1.1.1.29]

Erf / stand number	Boesmansnek Land Port of Entry Ongeluksnek Land Port of Entry Ramatseliso Land Port of Entry
Site address	
Township / Suburb	
City / Town	
Province	Boesmansnek Land Port of Entry (KwaZulu-Natal Province) Ongeluksnek & Ramatseliso Land Ports of Entry (Eastern Cape Province)
Local authority	
GPS Coordinates	Boesmansnek Land Port of Entry (29°50'37.72"S, 29°12'42.46"E) Ongeluksnek Land Port of Entry (30°20'35.08"S, 28°18'40.15"E) Ramatseliso Land Port of Entry (30° 3'2.24"S, 28°55'59.72"E)

A 3.0 EMPLOYER AND ITS REPRESENTATIVE

A 3.1 Employer:

Official Name of Organ of State / Public Sector Body	Government of the Republic of South Africa in its Department of Public Works & Infrastructure		
Business registration number	Not applicable	VAT number	Not applicable
E-mail		Telephone	0800 782 542
Postal address	Private Bag X 65 Pretoria 0001		
Physical address	Head Office: Public Works CGO Building 256 Madiba Street (Cnr Bosman and Madiba) Pretoria Central 0001		

Tender / Quotation no: H24/015AI

A 3.2 Employer's Representative:

Name	Goodwill Lukhele	Telephone number	012 406 1124
E-mail	Goodwill.Lukhele@dpw.gov.za	Mobile number	082 957 4451
Postal address	Private Bag X 65 Pretoria 0001		
Physical address	Head Office: Public Works CGO Building 256 Madiba Street (Cnr Bosman and Madiba) Pretoria Central 0001		

A 4.0	**Employers Agent/s**		2MC Consulting Engineers
A 4.1	**Principal Agent** [1.1.1.16]	**Discipline**	CIVIL ENGINEERING

Name	2MC CONSULTING ENGINEERS		
Legal entity of above		Contact person	T.MALAKA/J.MUSHWAN
Practice number		Telephone number	0860 262 266
Country	SOUTH AFRICA	Mobile number	086 617 459
E-mail	info@2mccons.co.za		
Postal address	P.O Box 32752 Braamfontein Johannesburg 2017		
Physical address	Highway Gardens Office Park, Section 6 71 Minuach Road Edenvale 1609		

A 4.2	**Agent** [1.1.1.16]	**Discipline**	OCCUPATIONAL SAFETY AND HEALTH

Name	2MC CONSULTING ENGINEERS		
Legal entity of above		Contact person	T.MALAKA/J.MUSHWA
Practice number		Telephone number	0860 262 266
Country	SOUTH AFRICA	Mobile number	086 617 459
E-mail	info@2mccons.co.za		
Postal address	P.O Box 32752 Braamfontein Johannesburg 2017		
Physical address	Highway Gardens Office Park, Section 6 71 Minuach Road Edenvale 1609		

A 4.3	Agent [1.1.1.16]	Discipline	MECHANICAL ENGINEERING

Name	2MC CONSULTING ENGINEERS		
Legal entity of above		Contact person	T.MALAKA/J.MUSHWA
Practice number		Telephone number	0860 262 266
Country	SOUTH AFRICA	Mobile number	086 617 459
E-mail	info@2mccons.co.za		
Postal address	P.O Box 32752 Braamfontein Johannesburg 2017		
Physical address	Highway Gardens Office Park, Section 6 71 Minuach Road Edenvale 1609		

A 4.4	Agent [1.1.1.16]	Discipline	ELECTRICAL ENGINEERING

Name	2MC CONSULTING ENGINEERS		
Legal entity of above		Contact person	T.MALAKA/J.MUSHWA
Practice number		Telephone number	0860 262 266
Country	SOUTH AFRICA	Mobile number	086 617 459
E-mail	info@2mccons.co.za		
Postal address	P.O Box 32752 Braamfontein Johannesburg 2017		
Physical address	Highway Gardens Office Park, Section 6 71 Minuach Road Edenvale 1609		

A 4.5	Agent [1.1.1.16]	Discipline	

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

Tender / Quotation no: H24/015AI

A 4.6	Agent [1.1.1.16]	Discipline

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.7	Agent [1.1.1.16]	Discipline

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.8	Agent [1.1.1.16]	Discipline

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.9	Agent [1.1.1.16]	Discipline

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb Insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

B CONTRACT INFORMATION

B 1.0 Definitions [1.1.1.2]

Bills of quantities: System / Method of measurement	SANS 1200

B 2.0 Law, regulations and notices [1.3.2]

Law applicable to the works [1.3.2]	Law of the Republic of South Africa

B 3.0 Offer and acceptance [1.1.1.20]

Currency applicable to this agreement [1.1.1.20]	South African Rand

B 4.0 Documents [1.1.1.7]

The original signed agreement is to be held by the principal agent [1.1.1.7], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost. (3 Copies of all relevant construction documentation – this to includes 1 priced Bills of Quantities and 2 unpriced Bills of Quantities)	3

Documents comprising the agreement	Page numbers
GCC GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS, THIRD EDITION (2015)	
DPW-05: (EC): GCC 2015: 3RD EDITION	
The GCC General Preliminaries for use with the GCC 2015: 3RD EDITION	
Contract participation goal documentation as further defined in clause 1.1.1.37 [CD] and B16 [CD]	
Drawings as per drawing register issued with the tender	
Specifications issued with the tender	

Schedules issued with the tender	
Bills of Quantities issued with the tender	
Addenda as issued during tender stage, if applicable	As issued

Tender / Quotation no: H24/015Ai

B 5.0 Employer's agents [3.0]

Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [3.0] [3.2.3 [CD]]

Principal Agent
2MC Consulting Engineers

Principal agent's and agents' interest or involvement in the works other than a professional interest

B 6.0 Insurances [8.6]

Insurances by contractor
NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990). **Insured amounts to include VAT.**

	The Contract Price [8.6.1.1.1] New Works With a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select
Or	The Contract Price [8.6.1.1.1] Works with alterations and additions (reinstatement value of existing structures / works without or including new works) with a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select

Or	The Contract Price [8.6.1.1.1] Works with practical completion in sections with a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select
	Plant and materials supplied by the Employer [8.6.1.1.2]	R Eng / PQS to determine value	Select
	Professional fees not included in the Contract Price, payable in respect of the repair or reinstatement of damage to the Works or said movables, plus Escalation thereon (if not included above). Minimum R1m unless other amount indicated. [8.6.1.1.3]	R Eng / PQS to determine value	Select
	Direct contractors [8.6.1.1.2] where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	Select
	Special Risks Insurance issued by Sasria [8.6.1.2]	R Eng / PQS to determine value	Select

Tender / Quotation no: H24/015AI

Public liability insurance [8.6.1.3]	R 5 000 000	Applicable
Ground support insurance [8.6.1.4]	R Eng / PQS to determine value	Select
Subcontractors insurance [8.6.3] where applicable, if not included in works insurance nor by sub-Contractors	R Eng / PQS to determine value	Select
Other Insurances [8.6.1.5]		
Free issue where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	Select
Hi Risk Insurance when the project is being executed in a geological area classified as a "High Risk Area" [8.6.8[CD]]	R Eng / PQS to determine value	Select
Other insurances: if applicable, description 1:	R Eng / PQS to determine value	Select
Other insurances; if applicable, description 2:	R Eng / PQS to determine value	Select

B 7.0 Obligations of the employer

Existing premises will be in use and occupied [5.4.1 & 5.4.2]	Select

If applicable, description:	
Restriction of working hours [5.8] If applicable, description:	Select
Natural features and known services to be preserved by the contractor [4.7] If applicable, description:	Select
Restrictions to the site or areas that the contractor may not occupy [5.4.1 & 5.4.2] If applicable, description:	Select

Tender / Quotation no: H24/015AI

Supply of free issue of material and goods [8.6.1.1.2] If applicable, description:	Amount	R	Select

B 8.0 Subcontractors [4.4]

Select	If applicable, description of specialisation
Specialisation 1	
Specialisation 2	
Specialisation 3	
Specialisation 4	
Specialisation 5	

B 9.0 Description of different portions of the works, if applicable [5.14.7, B10.3 [CD]]

Select	If applicable, description of sections
Section 1	
Section 2	
Section 3	
Section 4	

Section 5	
Section 6	
Remainder of the works.	

B 10.0 Contract period [B18: 1.2], **Construction period** [B18: 1.1], **Possession of site** [5.4.1], **Practical Completion** [1.1.1.14, 5.14.1], **Completion** (Final Approval Certificate) [5.16.1] **and Penalties** [5.13]

B 10.1 Contract Period

Contract period: Period in **36 months** as indicated, include the time from the date of award (commencement date [5.2.1]) for submitting contractual obligatory documents, submission of Health & Safety Plan and approval, period for obtaining the Construction Permit (if applicable), the Construction Period and the Defect Liability Period up to and including Final Completion

Tender / Quotation no: H24/015AI

The contract period is determined as follows (Period/s indicated in months):	**36**
Period to submit contractual obligatory documents including submission and approval of health and safety plan by the appointed Health & Safety Agent	
Period to obtain Construction Permit from Department of Labour upon approval of the Health & Safety Plan by the appointed Health & Safety Agent	
Total construction period for the Works as a whole from date of Access to and Possession of the Site up to and including **Practical Completion**, as indicated below [1.1.1.14, 5.4.1, 5.14.1]	
Period to achieve **Completion** [5.14.4]	
Defect liability period up to and including issuing Final Approval Certificate in months [5.16.1]	Select
Total Contract Period	

B10.2 Construction Period for completion of the Works as a whole

Construction period [B18: 1.2] and **Practical Completion for the Works as a whole** [5.14.1] The time for achieving Practical Completion of the whole of the Works is **measured from the** date of Access to and Possession of the **site** (5.4.1) by the **contractor** inclusive of all **public holidays, special non-working days and builders' holiday shut down periods.**	**36 Months**
The date for practical completion for the works as a whole shall be the period in **months** as indicated, starting from the date of Access to and Possession of the site by the contractor inclusive of all special non-working days and builders' holiday shut down periods [1.1.1.14, 5.4.1, 5.14.1]	**12 Months**
Notification period for inspection in **working days** by the principal agent.	

Penalty amount per calendar day for late submission of contractual obligatory documents: Ten percent (10%) of the penalty amount per calendar day for late Practical Completion, excluding VAT. [5.13]	R 500-00
Penalty amount per calendar day for **late Practical Completion**, excluding VAT. [5.13].	R 500-00
Penalty amount per calendar day for **late Completion** [5.14.4, 5.13]: Thirty percent (30%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 500-00
Penalty amount per calendar day for **late Final Completion** (Issuing of Final Approval Certificate) [5.16, 5.13]: Fifteen percent (15%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 500-00

Tender / Quotation no: H24/015AI

B10.3 Construction Period for completion of the Works in portions

Construction period and **Practical completion for portions of the Works** [5.14.7]					Select	
Portions of the Works in sections:	1	2	3	4	5	6
Notification period for inspection by the principal agent in **working days.**						
The date for practical completion shall be the period in **months** as indicated from the date of access and possession of the site by the contractor [1.1.1.14, 5.4.1, 5.14.1]						
The date for practical completion for **the whole** of the Works, if applicable shall be the period in **months** as indicated from the date of Access to and Possession of the Site by the contractor inclusive of all **public holidays, special non-working days and builders' holiday shut down periods** [5.4.1, 12.2.7; 24.1]					insert construction period as per B12.1 or N/A if Works as a whole is applicable	
Penalty for late Practical Completion, ***if completion in sections is required,*** excluding VAT [5.13]						
The penalty amount per day for failing to complete **section 1** of the Works is:					R	
The penalty amount per day for failing to complete **section 2** of the Works is:					R	
The penalty amount per day for failing to complete **section 3** of the Works is:					R	
The penalty amount per day for failing to complete **section 4** of the Works is:					R	
The penalty amount per day for failing to complete **section 5** of the Works is:					R	
The penalty amount per day for failing to complete **section 6** of the Works is:					R	
The penalty amount per day for failing to complete **the whole** of the Works, if applicable, is:					R	

Penalty amount per calendar day for late submission of contractual obligatory documents: To be calculated at Ten percent (10%) of penalty / calendar day to complete the whole of the Works as indicated above, excluding VAT.
Penalty amount per calendar day for **late Completion** [5.14.4, 5.13]: To be calculated at Thirty percent (30%) of penalty / calendar day to complete **Select** , excluding VAT
Penalty amount per calendar day for **late Final Completion** (Issuing of Final Approval Certificate) [5.16, 5.13]: To be calculated at Fifteen percent (15%) of penalty / calendar day to complete **Select** , excluding VAT

B 11.0 Criteria to achieve Practical Completion [1.1.1.14, 5.14.1]

Criteria to achieve Practical Completion not covered in the definition of practical completion	
13.1	Obtain Occupation Certificate from the relevant authority prior to issuing the Practical Completion certificate
13.2	All relevant CoCs
13.3	All guarantees

13.4	Training on electrical, security and mechanical installations if contractually required
13.5	Maintenance / operating manuals
13.6	CPG and cidb BUILD programme achievement certificates submitted with substatiating documentation
13.7	
13.8	
13.9	
13.10	

B 12.0 Defects liability period [5.16]

Defects liability period: Refer B10.1

Select	If applicable, description of applicable elements
14.1	All civil works (e.g. roads, storm water system, paving, sewer and water lines, etc.)
14.2	Mechanical equipment (e.g. pumps including switchgear, etc.)

14.3	Landscaping including automated systems (irrigation)
14.4	Electrical equipment (e.g. emergency generators, electronic switchgear,etc..)
14.5	Air conditioning system and plant
14.6	
14.7	
14.8	
14.9	
14.10	

Tender / Quotation no: H24/015AI

B 13.0 Payment [6.10]

Date of month for issue of regular payment certificates Refer [6.10.1]	
Contract price adjustment / cost fluctuations [6.8.2]	Select
If yes, method to calculate [6.8.2 [CD]]	Contract price adjustment factor
Employer shall pay the contractor within: Refer [6.10.4 [CD]]	Thirty (30) calendar days

B 14.0 Dispute resolution [10.5 [CD]]

Mediation	YES
Name of nominating body	Association of Arbitrators (Southern Africa)
Appointment of Mediator	State Attorney
Litigation	Court with Jurisdiction

B 15.0 SPECIFIC CHANGES MADE TO GCC 2015: 3RD EDITION

CONTRACT SPECIFIC DATA	
The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition (2015) are applicable to this Contract:	
CLAUSES	**COMPULSORY DATA**
1.1.1.8	Amend Clause 1.1.1.8 to include the word "rights" to read as follows: "Contract Data" means the specific data which, together with these General Conditions of Contract, collectively describe the rights, risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract.
1.1.1.9	Add to Clause 1.1.1.9 the following: "If the Contractor constitutes under the Law of the Republic of South Africa (B2.0) a joint venture, consortium or other unincorporated grouping of two or more persons: (a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract; (b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and (c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer."
1.1.1.13	Amend Clause 1.1.1.13 as follows: "Defects Liability Period" means the period stated in the Contract Data, commencing on the date indicated on the Certificate of Completion for the works as a whole or Certificates of Completion in the event of more than one Certificate of Completion is issued for different parts of the Works, during which the Contractor has both the right and the obligation to make good defects in the materials, Plant and workmanship covered by the Contract. Defects Liability Period is: **12 months.** The Defects Liability Period for the works shall commence on the calendar day following the date of the Certificate of Completion for the works as a whole or Certificates of Completion in the event of more than one Certificate of Completion is issued for different parts of the Works and end at midnight (00:00) three hundred and sixty five days (365) calendar days from the date of the Certificate of Completion.
1.1.1.14	Amend Clause 1.1.1.14 as follows: "Due Completion Date" means the date of expiry of the time stated in the Contract Data for achieving Practical Completion of the Works, calculated from the date of Access to and Possession of Site date (5.4.1) and as adjusted by such extensions of time or acceleration as may be allowed in terms of Contract (5.12).
1.1.1.15	The name of the Employer: Refer to A 3.1 [CD]
1.1.1.16	The name of the Employer's Representative: Refer to A 3.2 [CD]
1.1.1.17	The name of the Employer's Agent: Refer to A 4.0 and B 5.0 [CD]

1.1.1.20	Amend Clause 1.1.1.20 by inserting the following words at the end of this definition: "If the Acceptance section of the Form or Offer and Acceptance" contains conditional statements or a schedule of deviations is attached to the Form of Offer and Acceptance, then Form of Offer and Acceptance means the Contract Agreement, that shall be substantially in accordance with the form attached to the Scope of Works, and the date of signing the Contract Agreement shall be the date of the Form of Offer and Acceptance"
1.1.1.21 A	**Add new Clause 1.1.1.21.A** The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State.
1.1.1.27	This Pricing Strategy is a: **Re-measurement Contract.**
1.1.1.31	Not applicable to this Contract.
1.1.1.35	Insert the definition of "Value of Works" as Clause 1.1.1.35: "Value of Works" means the value of the Works certified by the Employer's Agent as having been satisfactorily executed and shall include the value of the works done, the value of the materials and/or plant and Contract Price Adjustments.
1.1.1.36	Insert the definition of "Latent and Patent Defects" as Clause 1.1.1.36: A 'latent defect' is a material defect, which was not visible after 'reasonable' inspection. The latent defect period commences at the date of Final Approval Certificate and ends 5 years [after that date [5.16.3]. A patent defect is a flaw that is not hidden and ought to be easily identified upon reasonable inspection.
1.1.1.37	**Add new Clause 1.1.1.37** Contract participation goals applicable to this Contract are as indicated in B16 [D] and described in the following tender documents: DPW 03 (EC): TENDER DATA, PG 01.1 (EC) SCOPE OF WORK and PG 02.1 (EC) PRICING ASSUMPTIONS.
1.2.3.	Replace Clause 1.2.3. with the following: The Employer's Agent is as indicated in clause B 5.0 and shall have the authority to act on behalf of the employer as indicated in the contract document read with the contract data. [3.2.3].
1.2.6	**Add new Clause 1.2.6** The priority of the documents shall be in accordance with the following sequence: (a) The Form of Offer and Acceptance and the signed Schedule of Devia7ons, (b) Contract Data, (c) These General Conditions of Contract, (e) Scope of Work, and (f) Pricing Data
1.3.4	Not applicable to this Contract.

1.3.5	Replace Clause 1.3.5 with the following: (a) The Employer will become the owner of the information, documents, advice, recommendation and reports collected, furnished and/or compiled by the Contractor during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer on request during the contract, but in any event on completion of contract, the termination and/or cancellation of this Contract for whatever reason. The Contractor relinquishes its lien / retention or any other rights thereon to which it may be entitled. (b) The copyright of all documents, recommendations and reports compiled by the Contractor during the course of and for the purposes of finalizing the Works will vest in the Employer, and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of information or payment to the Contractor. (c) The copyright of all electronic aids, software programmes etc. prepared or developed in terms of the Contract shall vest in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor. (d) In case of the Contractor providing documents, electronic aids, software programs or like material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not vest in the Employer. The Contractor shall be required to indicate to which documents, electronic aids, software programs or like material this provision applies. (e) The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright, patents or any other intellectual property right in connection with the Works outlined in this Contract. (f) All information, documents, recommendations, programs and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Employer's service and may not be published either during the currency of this Contract or after termination thereof without the prior written consent of the Employer.
1.3.7	Replace Clause 1.3.7 with the following By entering into this contract, the Contractor waives any lien that he may have or acquire, notwithstanding any other condition/s in this contract.
3.2.3	Add to Clause 3.2.3 the following: 1. The Employer's Principal Agent's authority to act and/or to execute functions or duties or to issue instructions are expressly **excluded** in respect of the following, unless same has been approved by the employer: (a) Appointment of Subcontractors – clause 4.4.4; (b) Granting of an extension of time and/or ruling on claims associated with claims for extension of time – clauses 5.12, 10.1.5; (c) Acceleration of the rate of progress and determination of the cost for payment of such acceleration – clause 5.12.4; (c) Rulings on claims and disputes – clauses 10.1.5, 10.2.3 and 10.3.3; (d) Suspension of the Works – clause 5.11.2; (e) Final Payment Certificate – clause 6.10.9;

	(f) Issuing of *mora* notices to the Contractor – clauses 9.1.1, 9.1.2.1 and 9.2.1; (g) Cancellation of the contract between the Employer and Contractor – clauses 9.1.1, 9.1.2.1 and 9.2.1. (h) Any variation orders – clause 6.3.1 2. In order to be legally binding and have legal bearing and consequence, any ruling in respect of the above matters (a) to (h) must be on an official document, signed and issued by the Employer to the Contractor. 3. The Contractor must submit claims, demands, notices, notifications, updated particulars and reports in writing, as well as any other supporting documentation pertaining thereto, in respect of any of the above listed matters (a) to (h), to the Employer's Agent within the time periods and in the format(s) as determined in the relevant clauses of the Conditions of Contract. Failing to deliver such to the Employer's Agent and in the correct format will invalidate any claim and the consequences of such failure will *mutatis mutandis* be as stated in clause 10.1.4. 4. Clauses 6.10.9 and 10.1.5 shall be amended as follows to indicate the limitation on the Employer's Agent authority in respect thereof: **Clause 6.10.9 – Amend to read as follows:** Within 14 days of the date of final approval as stated in the Final Approval Certificate, the Contractor shall deliver to the Employer's Agent a final statement claiming final settlement of all moneys due to him (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11, and not yet resolved). The Employer's Agent shall within 14 days issue to the Contractor a Final Payment Certificate the amount of which shall be paid to the Contractor within 30 days of the date of such certificate, after which no further payments shall be due to the Contractor (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11 and not yet resolved). **Clause 10.1.5 – Amend to read as follows:** Unless otherwise provided in the Contract, the Employer shall, within 28 days after the Contractor has delivered his claim in terms of Clause 10.1.1 as read with Clause 10.1.2, deliver to the Contractor his written and adequately reasoned ruling on the claim (referring specifically to this Clause). The amount thereof, if any, allowed by the Employer shall be included to the credit of the Contractor in the next payment certificate. If no ruling has been made within the 28 days, as referred to in clause 10.1.5. or any extension thereof as agreed to by the parties, the claim shall be regarded as rejected by the Employer. 5. Insert the following under 3.2.3: Provided that, notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should it deem it necessary, to amend any certificate, instruction, decision or valuation of the Employer's Agent and to issue a new one, and such certificate instruction, decisions or valuations shall for the purposes of the Contract be deemed to be issued by the Employer's Agent, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Employer's Agent and which has subsequently been rescinded.
3.3.2.1	Amend Clause 3.3.2.1 to insert the word "plant" to read as follows: Observe how the Works are carried out, examine and test materials, plant and workmanship, and receive from the Contractor such information as he shall reasonably require.

3.3.2.2.3	Add to Clause 3.3.2.2.3 the following: All oral communication must be reduced into writing to be binding on the parties.
3.3.2.2.4	Add to Clause 3.3.2.2.4 the following: All oral communication must be reduced into writing to be binding on the parties.
3.3.3.2	Amend Clause 3.3.3.2 to insert the word "plant" to reads as follows: Notwithstanding any authority assigned to him in terms of Clauses 3.3.2 and 3.3.4, failure by the E Employer's Agent's Representative to disapprove of any work, workmanship, plant or materials shall not prejudice the power of the Employer's Agent's thereafter to disapprove thereof and exercise any of his powers in terms of the Contract in respect of thereof.
4.4.4	Ref Clause 3.2.3.
4.4.6	Not applicable to this Contract.
4.8.2.1	Amend Clause 4.8.2.1 to include the word "person", as follows: Makes available to the Employer, or to any such contractor, person or authority, any roads or ways for the maintenance of which the Contractor is responsible, or
4.8.2.2	Amend Clause 4.8.2.2 to include "Employer" and "contractors", as follows: Provides any other facility or service of whatsoever nature to the Employer or to any of the said contractors, persons or authorities,
4.12.3	Add to Clause 4.12.3 the following: All oral communication must be reduced into writing to be binding on the parties.
5.3.1	Add to Clause 5.3.1: The documentation required before commencement with Works execution are: • Health and Safety Plan to be provided within 14 calendar days from award (Ref Clause 4.3) • Initial programme to be provided within 21 calendar days of handing over the site to the contractor (Clause 5.6) • Security (C1.0, Clause 6.2) • Insurance/s (B6, Clause 8.6) • *insert other requirements* • insert other requirements • insert other requirements
5.3.2	Add to Clause 5.3.2: The time to submit the documentation required before commencement with Works execution is: **21 calendar days.**
5.4.2	Add to Clause 5.4.2: The access to, and possession of, the Site referred to in Clause 5.4.1 shall be ***enter "exclusive" or "not exlcusive"*** to the Contractor. In the event of access to, and possession of, the Site is not exclusive to the Contractor, the following limitations apply: Insert an exposition of limitation or refer to separate attachement in specifications

5.6.2.2	Replace Clause 5.6.2.2 with the following: The sequence, timing of activities and resources for carrying out the Works.
5.6.2.7	Add the following to Clause 5.6.2.7: Updated cash flows and construction programme/s to be submitted on a monthly basis to the Employer's Agent and the Employer.
5.8.1	Add the following to Clause 5.8.1: The non-working days are: **Saturdays and Sundays** The special non-working days are: **Public Holidays and the year-end break annually published by the BCCEI (Bargaining Council for the Civil Engineering Industry)**
5.9.1	Amend Clause 5.9.1 as follows: On the Commencement Date, the Engineer shall deliver to the Contractor three (3) copies, at no cost to the Contractor, of the drawings and any instructions required for the commencement of the Works. The cost of any additional copies of such drawings and/or instructions, as may be required by the Contractor, will be for the account of the Contractor.
5.11.2	Ref Clause 3.2.3
5.12	Ref Clause 3.2.3
5.12.2.2	Amend Clause 5.12.2.2 as following: "Abnormal climatic conditions, therefore any weather conditions i.e. rain, wind (speed or dust), snow, frost, temperature (cold or heat) that have an adverse effect on the progress of the Works and during which no work is possible on site."
5.13.1	Add the following to Clause 5.13.1: The penalty for failing to complete the Works: Refer to B10 CD
5.14.1	Amend the second paragraph of Clause 5.14.1 as follows: When the Works are about to reach the said stage, the Contractor shall, in writing, request a Certificate of Practical Completion and the Employer's Agent shall, within 14 days after receiving such request, issue to the Contractor a written list setting out the work to be completed to justify Practical Completion. Should the Employer's Agent not issue such a list within the 14 days, the Contractor shall notify the Employer accordingly. Should the Employer not issue such a list within 7 days of receipt of such notice, Practical Completion shall be deemed to have been achieved on the 14th day after the contractor requested the Certificate of Practical Completion.
5.14.4	Add the following to Clause 5.14.4: Penalty for late Completion will be 30% of penalty applicable to late Practical Completion / calendar day. Penalty for late Final Completion will be 15% of penalty applicable to late Practical Completion / calendar day.
5.16.1	Amend Clause 5.16.1 by deleting the provision in the third paragraph of this clause.

5.16.2	Amend Clause 5.16.2 as follows: No certificate other than the Final Approval Certificate referred to in Clause 5.16.1 shall be deemed to constitute approval of the Works or shall be taken as an admission of the due performance of the Contract or any part thereof, nor of the accuracy of any claim made by the Contractor, nor shall any other certificate exclude or prejudice any of the powers of the Employer's Agent and/or the Employer.
5.16.3	The latent defect period for all works is: **5 years**
6.2.1	The type of security for the due performance of the Contract, as selected by the Contractor in the Contract Data, must be delivered to the Employer.
6.2.3	Amend Clause 6.2.3 as follows: If the Contractor has selected a performance guarantee as security, he shall ensure that it remains valid and enforceable as required in terms of the Contract.
6.3.1	Amend first paragraph to Clause 6.3.1 as follows: If, at any time before the issue of the **Practical Completion**, the Employer's Agent shall require any variation of the form, quality or quantity of the Works or any part thereof provided that such Variation Order shall not substantially alter the Scope of Work, he shall have power to order the Contractor to do any of the following subject to obtaining approval from the Employer (3.2.3):
6.5.1.2.3	The percentage allowance to cover overhead charges is **33%,** except on material cost where the percentage allowance is **10%.**
6.8.2	When Contract Price Adjustment is applicable [B13] the value of payment certificates is to be adjusted by a Contract Price Adjustment Factor (CPAF): The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Factor with the following values: The value of "x" is 0.15. The values of the coefficients are: a = 0.25. (Labour) b = 0.3 (Contractor's equipment) c = 0.3 (Material) d = 0.15 (Fuel) The values of the coefficients for "Repair and Maintenance Project" (RAMP) contracts are: a = 0.35 (Labour) b = 0.20 (Contractor's equipment) c = 0.35 (Material) d = 0.10 (Fuel) The urban area nearest the Site is ***Pietermaritzburg (KwaZulu-Natal Province)***. *(Select urban area from Statistical News Release, P0141, Table A)* The applicable industry for the Construction Material Price Index for materials / plant is ***Civil Engineering Material - Total.*** *(Select the applicable industry from Statistical News Release, P0151.1, Tables 2,4,5)* The area for the Producer Price Index for fuel is ***Coal and petroleum products - Diesel.*** *(Select the area from Statistical News Release, P0142.1, Table 1.)* The base month is *August 2024. (The month prior to the closing of the tender.)*

6.8.3	Price adjustments for variations in the costs of special materials are not allowed.
6.9.1	Replace Clause 6.9.1 with the following: "Plant and materials will only be certified and paid for upon furnishing proof of ownership by the contractor. Once paid, material and goods shall become the property of the Employer and shall not be removed from site without the written authority of the Employers Agent.
6.10.1	Add at end of Clause 6.10.1 The contractor shall provide the Employer's Agent every month, on dates as agreed between parties / instructed by the Principal Agent, with the following information: (a) Monthly Local content report, (b) EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register. (if applicable) (c) Tax Invoice (d) Labour intensive report (e) Contract participation goal reports (f) Updated construction programme (g) Revised cash flows
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is: **85 %.**
6.10.3	The limit of retention money is dependent on the security to be provided by the Contractor in terms of Clause 6.2.1.
6.10.4	Replace "28 days" with "30 days" provided all required documents including an invoice have been submitted and are correct in all respects.
6.10.5	Replace Clause 6.10.5 with the following: In respect of contracts up to R2 million and in respect of contracts above R2 million where the Contractor elects a security by means of a 10% retention, 50% of the retention shall be released to the Contractor when the Employer's Agent issues the Certificate of Completion in terms of clause 5.14.4. The remaining 50% of the retention shall be released in accordance with the provisions of the conditions of contract and will become due and payable when the Contractor becomes entitled, in terms of Clause 5.16.1, to receive the Final Approval Certificate. In respect of contracts above R2 million, where the Contractor elects a security by means of a cash deposit or fixed guarantee of 5% of the Contract Sum (excl. VAT) and a 5% retention of the Value of the Works (excl. VAT), the cash deposit or fixed guarantee, whichever is applicable, shall be refunded to the Contractor or return to the guarantor, respectively, when the Employer's Agent issues the Certificate of Completion in terms of Clause 5.14.4. The 5% retention of the Value of the Works (excl. VAT) shall become due and payable when the Contractor becomes entitled, in terms of Clause 5.16.1, to receive the Final Approval Certificate. In respect of contracts above R2 million, where the Contractor elects a security by means of a cash deposit or a variable guarantee of 10% of the Contract Sum (excl. VAT), the cash deposit or the variable guarantee, whichever is applicable, will be reduced to 5% of the Value of the Works (excl. VAT) when the Employer's Agent issues the Certificate of Completion in terms of Clause 5.14.4. The balance of the cash deposit shall become due and payable or the variable guarantee shall expire when the Contractor becomes entitled in terms of Clause 5.16.1 to receive the Final Approval Certificate.

6.10.6.2	Replace Clause 6.10.6.2 with the following: "In the event of failure by the Employer to make the payment by the due date, he shall pay to the Contractor interest, at the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State". (1.1.1.21.A).
6.10.9	Ref Clause 3.2.3.
7.2.1	The last sentence to read "Failing requirements or instructions, the Plant, workmanship and materials of the respective kinds shall be suitable for the intended purpose provided that materials procured for the works are from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the DPWI. Failing to comply, unless specified or approval granted will result in a ten percent (10%) penalty of the value of imported material used without approval.
7.5.3	Add the following to Clause 7.5.3 "Should the work inspected by the Employer's Agent be rejected, all consultant's fees / costs pertaining to the unsuccessful inspection shall be recovered from the contractor".
7.9.1	Insert the following at the end of Clause 7.9.1: Provided that, should the Contractor on demand not pay the amount of such costs to the Employer, such amount may be determined and deducted by the Employer from any amount due to or that may become due to the Contractor under this or any other previous or subsequent contract between the Contractor and the Employer.
8.2.2.1	Insert the following as a second paragraph to Clause 8.2.2.1: The Contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works, failing which the Employer may cause same to be done and recover the reasonable costs associated therewith from the Contractor.
8.3.1.10	Replace Clause 8.3.1.10 with the following: "Ionising, radiation, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuels, excluding leakages of any radioactive material / gases / corrosive liquids/chemicals, which are harmful to the environment and biological life, brought on to site for installation or used in the Works prior to final approval".
8.4.3	Add the following as Clause 8.4.3: Where the Contractor has caused damage to property (moveable and immovable), of any person, the Employer or third parties, the Contractor shall on receiving a written instruction from the Employer's Agent immediately proceed at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the Works.
8.6.1	Replace Clause 8.6.1 with the following: Except if provided otherwise in the Contract Data, the Contractor, without limiting his obligations in terms of the Contract, shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary, from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractors obligations after the date of practical completion [8.2.1]
8.6.1.1.1	Ref B6.0 CD for value of insurance.
8.6.1.1.2	Ref B6.0 CD for value of insurance.

8.6.1.1.3	Ref B6.0 CD for value of insurance.
8.6.1.3	Amend Clause 8.6.1.3 as follows: Liability insurance that covers the Contractor against liability for the death of, or injury to any person, or loss of, or damage to any property (other than property while it is insured in terms of Clause 8.6.1.1) arising from or in the course of the fulfilment of the Contract, from the Commencement Date to the date of the end of the Defects Liability Period, if applicable, or otherwise to the issue of the Certificate of Completion.
8.6.4	Not applicable to this Contract.
8.6.6	Replace Clause 8.6.6 with the following: Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the date of letter of acceptance, but before commencement of the works, submit to the employer all the policies by which the insurances are effected and due proof of upfront payment of all premiums thereunder to keep the policies effective from the Commencement Date to the date of the end of the Defects Liability Period, if applicable, or otherwise to the issue of the Certificate of Completion.
8.6.7	Replace Clause 8.6.7 with the following: If the Contractor fails to effect and keep in force any of the insurances referred to in Clause 8.6.1, the Employer may cancel the Contract in terms of Clause 9.2.
8.6.8	**Add new Clause 8.6.8.** **HIGH RISK INSURANCE** In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply: **(1) Damage to the Works** The Contractor shall, from the date of Commencement of the Works until the date of the Certificate of Completion, bear the full risk of and hereby indemnifies and holds harmless the Employer against any damage to and/or destruction of the Works consequent upon a catastrophic ground movement as mentioned above. The Contractor shall take such precautions and security measures and other steps for the protection of the Works as he may deem necessary. When so instructed to do so by the Employer's Agent, the Contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works, at the Contractor's own costs. **(2) Injury to Persons or Loss of or damage to Properties** The Contractor shall be liable for and hereby indemnifies and holds harmless the Employer against any liability, loss, claim or proceeding arising during the Contract Period whether arising in common law or by Statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above. The Contractor shall be liable for and hereby indemnifies the Employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or

	immovable or personal property or property contiguous to the Site, whether belonging to or under the control of the Employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the Contract Period. (3) It is the responsibility of the Contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in Clauses 8.6.8(1) and 8.6.8 (2) above. Without limiting his obligations in terms of the Contract, the Contractor shall, within 21 days of the Commencement Date and before Commencement of the Works, submit to the Employer proof of such insurance policy, if requested to do so. (4) The Employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the Contractor's default of his obligations as set out in Clauses 8.6.8 (1), 8.6.8 (2) and 8.6.8 (3). Provided that, should the Contractor on demand not pay the amount of such costs to the Employer, such amount may be determined and deducted by the Employer from any amount due to or that may become due to the Contractor under this or any other existing or subsequent contract between the Contractor and the Employer.
9.1.1	Ref Clause 3.2.3
9.1.2.1	Ref Clause 3.2.3
9.1.4	Replace the first paragraph of Clause 9.1.4 with the following: "In the circumstances referred to in Clauses 9.1.1, 9.1.2 or 9.1.3 (provided that the circumstances in 9.1.3 is not due to the fault of the Contractor, his employees, contractors or agents), and whether or not the Contract is terminated under the provisions of this Clause, the Contractor shall be entitled on proof of payment of any increased cost of or incidental to the execution of the Works which is specifically attributable to, or consequent upon the circumstances defined in Clauses 9.1.1, 9.1.2 or 9.1.3; ..... necessary changes"
9.1.5	Replace the first paragraph of Clause 9.1.5 with the following: If the Contract is terminated on any account in terms of this Clause (provided that the circumstances in 9.1.3 is not due to the fault of the Contractor, his employees, contractors or agents) , the Contractor shall be paid by the Employer (insofar as such amounts or items have not already been covered by payments on account made to the Contractor) for all measured work executed prior to the date of termination, the amount (without retention), payable in terms of the Contract and, in addition: "
9.1.5.5	Not applicable to this Contract.
9.1.6	Not applicable to this Contract.
9.2.1	Ref Clause 3.2.3
9.2.1.3.9	**Add new Clause 9.2.1.3.9:** Has failed to effect and keep in force any of the insurances referred to in Clause 8.6.1.
9.2.4	Add the following as Clause 9.2.4: In the case where a contract is terminated by the Employer by no fault by any party, the contractor shall be entitled to no other compensation than for work done and materials on site as certified by the Principal Agent at the date of termination.

9.3.2.2	Replace Clause 9.3.2.2 with the following: All Plant and Construction Equipment, Temporary Works and unused materials brought onto the Site by the Contractor, and where ownership has not been transferred to the Employer (see Clause 6.9.1), shall be removed from the Site on termination of the contract by any party.
9.3.2.3	Not applicable to this Contract
9.3.3	Add the following at the end of Clause 9.3.3 After cancellation of the Contract by the Contractor, the Contractor, when requested by the Employer to do so, shall not be entitled to refuse to withdraw from the Works on the grounds of any lien or a right of retention or on the grounds of any other right whatsoever. Nothing in this Clause shall prejudice the right of the Contractor to exercise, either in lieu of or in addition to the Contractor rights and remedies specified in this Clause, any other rights or remedies to which the Contractor may be entitled under the Contract or common law.
10.1.3.1	Replace Clause 10.1.3.1 with the following: All facts and circumstances relating to the claims shall be investigated as and when they occur or arise. For this purpose, the Contractor shall deliver to the Employer's Agent, records in a form approved by the Employer's Agent, of all the facts and circumstances which the Contractor considers relevant and wishes to rely upon in support of his claims, including details of all construction equipment, plant, labour, and materials relevant to each claim. Such records shall be submitted promptly after the occurrence of the event giving rise to the claim.
10.1.3.6	Replace Clause 10.1.3.6 with the following: The Employer, the Employer's Agent and the Contractor shall in any proceedings in accordance with Clauses 10.3 and 10.11 be entitled to give or lead evidence of or rely on any fact or circumstance not recorded in terms of this Clause, if other party to the dispute is prejudiced by such non-recording of the facts.
10.1.4	Ref Clause 3.2.3.
10.1.5	Ref Clause 3.2.3.
10.1.6	**Add new Clause 10.1.6:** If the Employer fails to give his ruling within the period referred to in Clause 10.1.5 he shall be deemed to have given a ruling dismissing the claim.
10.1.3.6	Replace Clause 10.1.3.6 with the following: The employer, the Employer's Agent and the Contractor shall in any proceedings in accordance with Clauses 10.3 and 10.11 be entitled to give or lead evidence oof or rely on any fact or circumstance not recorded in terms of the Clause, if the other party to the dispute in prejudiced by such nor-recording of the facts.
10.2.1	Replace Clause 10.2.1 with the following: In respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1 or which does not require the decision or ruling of the Employer, the Contractor or the Employer shall have the right to deliver a written dissatisfaction claim to the Employer's Agent. This written claim shall be supported by particulars and substantiated.

10.2.2	Replace Clause 10.2.2 with the following: If, in respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1 or which does not require the decision or ruling of the Employer, the Contractor or the Employer fails to submit a claim within 28 days after the cause of dissatisfaction, he shall have no further right to raise any dissatisfaction on such matter.
10.2.3	Ref clause 3.2.3.
10.3.2	Replace Clause 10.3.2 with the following: If either party shall have given notice in compliance with Clause 10.3.1, the dispute shall be referred immediately to mediation under Clause 10.5, unless amicable settlement is contemplated.
10.3.3	Replace Clause 10.3.3with the following:: In respect of a ruling given by the Employer (Ref clause 3.2.3), and although the parties may have delivered a Dispute Notice, the ruling shall be in full force and carried into effect unless and until otherwise agreed by both parties, or in terms of a mediation decision or court judgement.
10.4.2	Replace Clause 10.4.2 with the following: If the other party rejects the invitation to amicable settlement in writing, or does not respond in writing to the invitation within 14 days, or amicable settlement is unsuccessful, referral to mediation shall follow immediately. Should mediation be unsuccessful, the dispute shall be resolved by Litigation.
10.4.4	Replace Clause 10.4.4 with the following: Save for reference to any portion of any settlement, or decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement, or to the fact that any particular evidence was given, or to any submission, statement or admission made in the course of the amicable settlement.
10.5	Replace Clause 10.5 with the following: The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event: 10.5.1 The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties. 10.5.2 Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.
10.6	Not applicable to this Contract.
10.7	Not applicable to this Contract.
10.10.3	Replace Clause 10.10.3 with the following: The court shall have full power to open up, review and revise any ruling, decision, order, instruction, certificate or valuation of the Employer's Agent and Employer and neither party shall be limited in such proceedings before such court to the evidence or arguments put before the Employer's Agent or Employer for the purpose of obtaining his ruling.

B 16.0 CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	***Applicable***
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	***Applicable***
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	***Applicable***
(d)	**cidb BUILD Programme:** Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	***Applicable***
(e)	**cidb BUILD Programme:** Minimum Targeted Contract Skills Development Goal in accordance with the cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023. and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	***Applicable***
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	***Applicable***
(g)	Labour Intensive Works – Condition of Contract.	***Applicable***
(h)		***Select***
(i)		***Select***

PART 2: CONTRACT DATA COMPLETED BY THE TENDERER:

C TENDERER'S SELECTIONS

C 1.0 Securities [11.0]

In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT).

In respect of contracts with a contract sum more than R1 million, the security to be provided by the contractor to the employer will be selected by the Contractor as indicated below:

Guarantee for construction: Select Option A, B, C, D or E

Option A	cash deposit of 10 % of the contract sum (excluding VAT)
Option B	variable construction guarantee of 10 % of the contract sum (excluding VAT) (DPW-10.3 EC)
Option C	payment reduction of 10% of the value certified in the payment certificate (excluding VAT)
Option D	cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT)
Option E	fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) (DPW-10.1 EC)]

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

Guarantee for payment by employer [11.5.1; 11.10]	Not applicable
Advance payment, subject to a **guarantee for advance payment** [11.2.2; 11.3]	Not applicable

C 2.0 Payment of preliminaries [25.0]

Contractor's selection

Select Option A or B

Where the **contractor** does not select an option, Option A shall apply

Payment methods

Option A	The **preliminaries** shall be paid in accordance with an amount prorated to the value of the **works** executed in the same ratio as the amount of the **preliminaries** to the **contract sum**, which **contract sum** shall exclude the amount of **preliminaries**. Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The **preliminaries** shall be paid in accordance with an amount agreed by the **principal agent** and the **contractor** in terms of the **priced document** to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the **principal agent** and adjusted from time to time as may be necessary to take into account the rate of progress of the **works**

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 3.0 Adjustment of preliminaries [26.9.4]

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

Contractor's selection

Select Option A or B

Where the **contractor** does not select an option, Option A shall apply.

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in **sections** is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**.

Option A	An allocation of the **preliminaries** amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) **working days** of the date of acceptance of the tender
Option B	A detailed breakdown of the **preliminaries** amounts within fifteen (15) **working days** of possession of the **site**. Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of **construction equipment**, establishment and dis-establishment charges, insurances and guarantees, all in terms of the **programme**

Adjustment methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**.

Option A	The **preliminaries** shall be adjusted in accordance with the allocation of **preliminaries** amounts provided by the **contractor**, apportioned to **sections** where completion in **sections** is required Fixed - An amount which shall not be varied. Value-related - An amount varied in proportion to the **contract value** as compared to the **contract sum**. Both the **contract sum** and the **contract value** shall exclude the amount of **preliminaries**, contingency sum(s) and any provision for cost fluctuations. Time-related - An amount varied in proportion to the number of **calendar days** extension to the date of **practical completion** to which the **contractor** is entitled with an adjustment of the **contract value** [23.2; 23.3] as compared to the number of **calendar days** in the initial **construction period** [26.9.4].
Option B	The adjustment of **preliminaries** shall be based on the number of **calendar days** extension to the date of **practical completion** to which the **contractor** is entitled with an adjustment of the **contract value** [23.2; 23.3] as compared to the number of **calendar days** in the initial **construction period** [26.9.4]. The adjustment shall take into account the resources as set out in the detailed breakdown of the **preliminaries** for the period of construction during which the delay occurred.

Failure to provide particulars within the period stated

Option A	Where the allocation of **preliminaries** amounts for Option A is not provided, the following allocation of **preliminaries** amounts shall apply: Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%) Where the apportionment of the **preliminaries** per **section** is not provided, the categorised amounts shall be prorated to the cost of each **section** within the **contract sum** as determined by the **principal agent**
Option B	Where the detailed breakdown of **preliminaries** amounts for Option B is not provided, Option A shall apply

Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DPW-10.2 (EC): VARIABLE CONSTRUCTION GUARANTEE GCC 3rd Edition (2015)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Department of Public Works & Infrastructure
Private Bag ***x 65***
Pretoria
0001

Sir,

VARIABLE CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF GCC 3rd Edition (2015)

1. With reference to the contract between _____

_____ (hereinafter referred to as the **"contractor"**) and the Government of the Republic of South Africa in its Department of Public Works and Infrastructure (hereinafter referred to as the **"employer"**), Contract/Tender No: ***H24/015AI***, for the ***BOESMANSNEK, ONGELUKSNEK AND RAMATSELITSO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS*** (hereinafter referred to as the **"contract"**) for the sum of R ***insert amount***, (***insert amount in words***), (hereinafter referred to as the **"contract sum"**).

I / We, _____

in my/our capacity as _____ and hereby

representing _____ (hereinafter referred to as the **"guarantor"**) advise that the **guarantor** holds at the **employer**'s disposal the sum of R ***insert amount***, (***insert amount in words***) being **10%** of the **contract sum** (excluding VAT), for the due fulfilment of the **contract**.

2. I / We advise that the **guarantor**'s liability in terms of this guarantee shall be as follows:

   (a) From and including the date on which this guarantee is issued and up to and including the day before the date on which the last **certificate of completion** of works is issued, the **guarantor** will be liable in terms of this guarantee to the maximum amount of 10% of the **contract sum** (excluding VAT);

   (b) The **guarantor**'s liability shall reduce to 5 % of the **value of the works** (excluding VAT) as determined at the date of the last **certificate of completion** of works, subject to such amount not exceeding 10% of the **contract sum** (excluding VAT);

   (c) This guarantee shall expire on the date of the last **final approval certificate**.

3. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis;* and *de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed on receipt of a written demand from the **employer** to do so, stating that (in the **employer**'s opinion and sole discretion):

   (a) the **contractor** has failed or neglected to comply with the terms and/or conditions of the **contract**; or

Tender no: ***(Insert Tender Number)***

(b) the **contractor**'s estate is sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.

4. Subject to the above, but without in any way detracting from the **employer**'s rights to adopt any of the procedures provided for in the **contract**, the said demand can be made by the **employer** at any stage prior to the expiry of this guarantee.
5. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon issue of the last **final approval certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.
6. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the aforegoing, any compromise, extension of the construction period, indulgence, release or variation of the **contractor**'s obligation shall not affect the validity of this guarantee.
7. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the **guarantor**'s liability ceases.
8. This guarantee is neither negotiable nor transferable, and

   (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 5 above, or
   (b) shall lapse in accordance with clause 2 (c) above.
9. This guarantee shall not be interpreted as extending the **guarantor**'s liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ **ON THIS** _____ **DAY OF** _____ **20**_____

AS WITNESS

1. _____

2. _____

By and on behalf of

_____

_____

_____

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

A. **No alterations and/or additions of the wording of this form will be accepted.**

B. **The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.**

C. **This GUARANTEE must be returned to:** _____

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer"

REPUBLIC OF SOUTH AFRICA

DPW-10.4 (EC): FIXED CONSTRUCTION GUARANTEE GCC 3rd Edition (2015)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Department of Public Works and Infrastructure
Private Bag ***x 65***
Pretoria
0001

Sir,

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF GCC 3rd Edition (2015)

1. With reference to the contract between _____

_____ (hereinafter referred to as the **"contractor"**) and the Government of the Republic of South Africa in its Department of Public Works and Infrastructure (hereinafter referred to as the **"employer"**), Contract/Tender No: ***H24/015AI***, for the ***BOESMANSNEK, ONGELUKSNEK AND RAMATSELITSO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS*** (hereinafter referred to as the **"contract"**), for the sum of R ***insert amount***, (***insert amount in words***), (hereinafter referred to as the **"contract sum"**).

I / We, _____

in my/our capacity as _____ and hereby

representing _____ (hereinafter referred to as the **"guarantor"**) advise that the **guarantor** holds at the **employer**'s disposal the sum of R ***insert amount***, (***insert amount in words***) being 5% of the **contract sum** (excluding VAT), for the due fulfillment of the **contract**.

2. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis;* and *de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed on receipt of a written demand from the **employer** to do so, stating that (in the **employer**'s opinion and sole discretion):

   (a) the **contractor** has failed or neglected to comply with the terms and/or conditions of the **contract**; or
   (b) the **contractor**'s estate is sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.

3. Subject to the above, but without in any way detracting from the **employer**'s rights to adopt any of the procedures provided for in the **contract**, the said demand can be made by the **employer** at any stage prior to the expiry of this guarantee.

4. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last **final approval certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.

5. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the aforegoing, any compromise, extension of the construction period, indulgence, release or variation of the **contractor**'s obligation shall not affect the validity of this guarantee.

6. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the **guarantor**'s liability ceases.

7. This guarantee is neither negotiable nor transferable, and

   (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or

   (b) shall lapse on the date of the last **certificate of completion** of works.

8. This guarantee shall not be interpreted as extending the **guarantor**'s liability to anything more than the payment of the amount guaranteed.

SIGNED AT _____ **ON THIS** _____ **DAY OF** _____ **20**____.

AS WITNESS

1. _____

2. _____

By and on behalf of _____

_____

_____
(Insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

A. **No alterations and/or additions of the wording of this form will be accepted.**

B. **The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.**

C. **This GUARANTEE must be returned to:** _____

_____

_____

PART C2: PRICING DATA

PG-02.1 (EC) PRICING ASSUMPTIONS – GCC 3rd Edition (2015)

Project title:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)		
Tender / Quotation no:	*H24/015AI*	**Reference no:**	*H24/015AI*

C2.1 Pricing Assumptions

C2.1.1 GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specification) and the Drawings.

C2.1.2 DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the Standardized Specifications and the Particular Specifications, read together with the relevant clauses of the Project Specification and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to remeasuring during the execution of the work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

C2.1.4 PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 45 of the General Conditions of Contract 2004. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Unauthorized changes made by the Tenderer to provisional items in the Bill of Quantities, or to the provisional percentages and sums in the Summary of the Bill of Quantities will lead to the disqualification of the Tenderer.

C2.1.5 PRICING OF THE BILL OF QUANTITIES

The **bills of quantities / lump sum document** forms part of and must be read and priced in conjunction with all the other documents forming part of the **contract documents**, the Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all cost and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the 'Total' column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

The Tenderer is required to check the Bills of Quantities and the numbers of the pages and should any be found to be missing or in duplicate, or should any of the typing be indistinct, or any doubt of obscurity arise as to the meaning of any description or particulars of any item, or if this Tender Enquiry contains any obvious errors, then the Tenderer must immediately inform the Principal Agent and have them rectified or explained in writing as the case may be. No liability whatsoever will be admitted by reason of the Contractor having failed to comply with the foregoing instruction.

No alterations, erasures, omissions or additions is to be made in the text and/or conditions of these Bills of Quantities. Should any such alterations, amendments, note/s or addition be made, the same will not be recognized, but reading of these Bills of Quantities as originally prepared by the Quantity Surveyor will be adhered to.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

The prices and rates to be inserted by the Tenderer in the Bills of Quantities shall be the full inclusive prices to be paid by the Employer for the work described. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Market related prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out. The Employer reserves the right to balance the Bill rates where deemed necessary within the Tendered Amount.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

Should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer shall fill in rates for all items where the words "rate only' appear in the "Total" column. "Rate Only" items have been included where:

(a) variations of specified components in the make-up of a pay item may be expected; and
(b) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For 'Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "PW 371" and the principles contained in the latest version of the SANS 1200 in South Africa. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

The price quoted against each item of this Bills of Quantities shall cover the full inclusive cost of the complete work to which it refers, as described in the Conditions of Contract and Specifications and as shown on the Drawings and shall allow for labour, material, transporting, loading, storage, supervision, commissioning, wastage, as well as the builders profit and attendance.

The Tenderer must ensure that he fully completes all columns of the Bill of Quantities including the Final Summary. The fully priced bill of quantities must be submitted with the tender or The Final Summary and the Section Summary pages MUST be returned with the tender document as indicated the PA-03 Notice and Invitation to Tender / PA-04 Notice and Invitation for quotation.

The tenderers are to ensure that they have read and understood the project specifications included in C3: Scope of Work. All the information provided in the Scope of Works form part of the work and must be included in the rates.

"The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

(a) the form and nature of the Site and its surroundings, including subsurface conditions,

(b) the hydrological and climatic conditions,

(c) the extent and nature of work and materials necessary for the execution and completion of the Works,
(d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender"

C2.1.6 VALUE ADDED TAX

The **contract sum** must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the **bills of quantities / lump sum document** shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. The rates must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary. All rates and amounts quoted in the Bill of Quantities

C2.1.7 CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

C2.1.8 ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication of addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

C2.1.9 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.10 UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bill of Quantities are as follows:

No.	=	Number
%	=	Percent
Sum	=	Lump sum
PCsum	=	Prime cost sum
Prov sum	=	Provisional sum
m³.km	=	Cubic metre - kilometre
Km-pas	=	kilometre - pass
m².pass	=	square metre – pass

C2.1.11 TRADE NAMES

Tenderers attention is drawn to the fact that wherever trade names or references to any catalogue have been made in these Bills of Quantities, it is purely to establish a standard for the required material. If use is made of any other equally approved material in lieu of the prescribed trade name or catalogue, the necessary price adjustments will be made.

C2.1.12 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.13 PAYMENTS

Interim valuations and payments will be prepared on a monthly basis, all in terms of the conditions of contract.

The contractor is to note that no payment will be made for materials stored off site and in the case of materials being stored on site, payment will only be made for such materials on condition that they have not been delivered to the site prematurely, a tax invoice and proof of payment (ownership) is submitted by the Contractor.

C2.1.14 ACCOMMODATION ON SITE

It is imperative to note that no living quarters for construction workers on site will not be permitted for the full duration of the contract unless otherwise stated in the contract data or permission be granted by the Employer.

C2.1.15 LOCAL MATERIAL UTILISATION REPORT (LOCAL CONTENT)

Submission of Local Material Utilisation Reports is *applicable* to this project.

Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.

The contractor shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, indicating the percentage targets achieved in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16 CONTRACT PARTICIPATION GOALS

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

Provision for pricing of compliance with the achieving the CPGs is made in the Contract Participation Goal Section of the Bills of Quantities and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced thereunder and no additional claims in this regard shall be entertained

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

C2.1.16.1 MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Manufacturers CPG is *applicable* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.1. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.2 MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Suppliers CPG is *applicable* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.2. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.3 MINIMUM TARGETED LOCAL LABOUR CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Labour Skills Development CPG is *applicable* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Labour CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.3. T Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.4 MINIMUM TARGETED ENTERPRISE DEVELOPMENT: CONTRACT PARTICIPATION GOALS (CPG)

The Minimum Targeted Enterprise Development Contract Participation Goal is *applicable* to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Enterprise Development CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.4. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises. The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries and the appointment of the training coordinator, mentor, training service providers of which the cost will be offset against the provisional amount allowed in the Bills of Quantities.

C2.1.16.5 MINIMUM TARGETED TARGETED CONTRACT SKILLS DEVELOPMENT GOALS (CSDG)

The Minimum Targeted Contract Skills Development CPG is *applicable* to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Skills Development CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.5. The provisional amount allowed is for:

- stipends payable to the beneficiaries
- appointment of training coordinator
- appointment of mentor (where applicable)
- appointment of training service providers
- other additional costs as per Table 3 of the Standard

The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative

on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries. The CPG value to be achieved will be based on the actual contract amount which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

Payment

The contractor shall upon the appointment of beneficiaries, provide a breakdown of all the associated costs. The contractor shall provide a payment schedule as to how the CPG costs will be claimed against for inclusion in the monthly payment certificates.

(a) Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications;

Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

The contract skills participation goal, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for the applicable class of construction works. Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Table 1: Contracting skills development goals for different classes of engineering and construction works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (Table 2, Page 7)

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 and 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

No provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Contract Participation Goal section in the Bill of Quantities for the training of part/full time occupational learners and/or trade qualification learners. The associated cost is deemed to be included in general supervision on site.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

(b) Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration;

Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Provisional amounts have been included in the Contract Participation Goal section in the Bill of Quantities for the training of Work Integrated Learners and Candidates for professional registration. The contractor shall price his Profit and Attendance (all inclusive of associated costs to the contractor for implementation and reporting), based on the provisional amount in the Contract Participation Goal section in the Bill of Quantities.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

The CPG value to be achieved will be based on the contract amount as defined by the Standard, which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

The contractor shall apportion the cost of accommodating work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard and this cost will be used to determine the Rand value and will be used in determining the contract participation goal in the Bills of Quantities.

Table 3: The notional cost pf providing training opportunities per quarter
Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (table 3, Page 9)

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	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College 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	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a provisional item.

Example: Training Target Calculation for a R65,7m GB contract

Contract amount	R65 700 000
Contract duration	12 Months
CSDG	0,50%
Minimum CSDG target	0,50% x R65 700 000 = R328 500 (Minimum requirement)

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost/learner/year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	1	R23 000	R92 000	R92 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	1	R61 500	R246 000	R246 000

Total	2			R338 000

C2.1.16.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME

The National Youth Service Training and Development Programme is *applicable* to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities.

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Training and Development Programme CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.6.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is *applicable* to this project.

Where labour intensive work is specified in the Bill of Qualities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the monthly reporting illustrating the value of the works executed under Labour Intensive Works CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.7 and any other supplementary specifications.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.2 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

PART C2.1: BILL of QUANTITIES (BOQ)

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB: TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK

CALCULATION OF TENDER SUMMARY

	TOTAL SUMMARY
TOTAL: PRELIMINARY AND GENERAL	R
TOTAL : CIVIL REPAIR WORK	R
TOTAL : ELECTRICAL REPAIR WORK	R
TOTAL : MECHANICAL REPAIR WORK	R
TOTAL : CIVIL MAINTENANCE WORK	R
TOTAL : ELECTRICAL MAINTENANCE WORK	R
TOTAL : MECHANICAL MAINTENANCE WORK	R
TOTAL OF SCHEDULE OF QUANTITIES	R
15 % VALUE-ADDED TAX (VAT)	R
TENDER SUM CARRIED TO THE TENDER FORM	R

SIGNED ON BEHALF OF TENDERER: _____

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/016AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A1: **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		PREAMBLE **Pricing of Bill of Quantities (BOQ)** *The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities.* *Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained.* *Prices for all construction equipment, temporary works, services, replacement parts and other items shall include for the supply, maintenance, operating cost, commissioning and subsequent removal and making good as necessary.*				
		Carried forward				

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
SABS	**100.00**	**PRELIMINARY AND GENERAL**				
	100.01	**Scheduled fixed-charge and value-related items: Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry**				
PSA 8.3.1		.01 Fixed preliminary and general charges (Release 80% after site establishment on all sites and 20% after contract completion)	Sum	1		
PSA 8.3.2		.02 Value-related preliminary and general charges	Sum	1		
PS 3		.03 Details of contract, including site assessment and report of all sites (penalty for late submission) - Item PS3	Sum	1		
		.04 Payment reduction due to late submission of an adequate/ acceptable site assessment and report	days	-	-R 500.00	rate only
	100.02	**Scheduled time-related items:**				
PSA 8.4.1		.01 Time-related preliminary and general charges for Boesmansnek Land Port of Entry	No.	36		
		.02 Time-related preliminary and general charges for Ramatseliso Land Port of Entry	No.	36		
		.03 Time-related preliminary and general charges for Ongeluksnek Land Port of Entry	No.	36		
		.04 Hourly Rate for Additional Semi-Skilled Labour	hour	3 000		
PSA 8.8	**101.00**	**TEMPORARY WORKS**				
PSA 8.8.4.1	**101.01**	**Location and protection of existing services:**				
		Provision of detecting devices for:				
		.01 Water and sewer pipes	Sum	1		
		.02 Electrical and other cables	Sum	1		
PSA 8.8.4.2		.03 Hand excavation necessary for locating and exposing existing services in all material:				
		.01 In roadways	m^3	4		
		.02 In all other areas	m^3	12		
		Carried forward				

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	101.02	**Contingency allowance for operational damages**				
		.01 Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry	PC Sum	-	-	R 75 000.00
		.02 Charge required by Contractor on subitem .01 above	%	R 75 000.00	..... %	
PSA 8.9	**101.03**	**Call Centre:**				
		.01 Call Centre for breakdown calls logged	PC Sum	-	-	R 50 000.00
		.02 Charge required by Contractor on subitem .01 above	%	R 50 000.00	..... %	
SB.02	**101.04**	**Survey, compile and supply complete site plans of Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry which shall include:**				
		.01 Existing structures, facilities, roads, paving etc	No.	3		
SB.02		.02 Storm water drainage system	No.	3		
		.03 Electrical infrastructure	No.	3		
		.04 Firefighting equipment and infrastructure	No.	3		
		.05 Septic tanks and sewer networks	No.	3		
		.06 Bulk water supply and water distribution network	No.	3		
PSA 6.11	**102.00**	**HOUSING FOR THE ENGINEER'S REPRESENTATIVE**				
		.01 Housing for the Engineer's representative	PC Sum	-	-	R 50 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R 50 000.00	..... %	
SI.01	**103.00**	**OCCUPATIONAL HEALTH AND SAFETY ACT**				
		.01 Preparation of Health and Safety Plan and approved by Engineer	Sum	1		
		.02 Compliance with OHS Act and Construction Regulations 2014 (Scoring and Payment as per SI 06.03)	No.	36		
		.03 Appointment of OHS Agent approved and for 36 months required by the Engineer	PC Sum	-	-	R 25 000.00
		.04 Attendance and profit on subitem .03 above	%	R 25 000.00	..... %	
	Carried forward					

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	104.00	**COVID-19 / PANDEMIC - OCCUPATIONAL HEALTH AND SAFETY ITEMS**				
		.01 OHS Signage, Medical Waste Bins, Hand Sanitizer, Masks, Thermometer, Gloves and other related Personal Protective Equipment for COVID-19 / Pandemic and approved by Engineer	PC Sum	-		R 10 000.00
		.02 Attendance and profit on subitem .01 above	%	R 10 000.00	..... %	
	105.00	**HIV/AIDS AWARENESS**				
		It is required of the Contractor to thoroughly study the ***Additional Specification SH: HIV / AIDS Requirements (PW 1544)*** of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under the items hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained The Contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative/Agent, notwithstanding the provisions of Clause 52 of the General Conditions of Contract for Works of Civil Engineering Construction or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment				
SH 07		.01 Awareness Champion Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services	No.	3		
SH 04.01		.02 Awareness Workshops Selection and appointment of a competent Service Provider approved by the Representative/ Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures	No.	3		
SH 04.03		.03 Posters, Booklets, Videos, etc. Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period	No.	3		
	Carried forward					

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SH 05		.04 Access to Condoms Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period	No.	3		
SH 08		.05 Monitoring Monitoring HIV/AIDS awareness of workers, providing the Representative/Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close-out	Month	36		
BF	106.00	**PEST CONTROL**				
PSA 8.6		.01 Preventative pest control	PC Sum	-	-	R 150 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R 150 000.00	..... %	
	107.00	**TESTING**				
PSA 8.9	107.01	**Additional tests:**				
		.01 Additional tests required by the Engineer	PC Sum	-	-	R 150 000.00
		.02 Attendance and profit of item .01 above	%	R 150 000.00	..... %	
	108.00	**EMERGENCY WATER SUPPLY**				
DW 06.01	108.01	Supply and delivery of potable water in batches of 1000ℓ from commercial sources on the instruction of the Engineer/Department's representatives	m^3	120		
EM.01	109.00	**WATER LEGISLATION COMPLIANCE LICENSING OF WATER MANAGEMENT ACT 2000**				
		.01 Water Quality Management Report i.t.o Aide Memoire	PC Sum	-	-	R 20 000.00
		.02 Profit and attendance on item .01	%	R 20 000.00	..... %	
		.03 License application	PC Sum	-	-	R 20 000.00
		.04 Profit and attendance on item .03	%	R 20 000.00	..... %	
EM.02		.05 EIA pre-application consultation and scoping report	PC Sum	-	-	R 25 000.00
EM.02		.06 Profit and attendance on item .05	%	R 25 000.00	..... %	
EM.03		.07 EIA authorisation and ROD	PC Sum	-	-	R 10 000.00
		.08 Profit and attendance on item .07	%	R 10 000.00	..... %	
	Carried forward					

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	110.00	**RECORD KEEPING**				
SA.07	**110.01**	**Site Maintenance Record Keeping (monthly maintenance report for all schedules, checklists, reports, etc as detailed in specification SA 03.10 and maintenance control plan):**				
		.01 Boesmansnek Land Port of Entry	Month	36		
		.02 Ramatseliso Land Port of Entry	Month	36		
		.03 Ongeluksnek Land Port of Entry	Month	36		
SN	**111.00**	**Expanded Public Works Programme** **EMPLOYMENT AND TRAINING OF EPWP WORKERS** Tenderers are advised to study the Additional Specification SL: Employment and Training of Labour on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service				
	111.01	**TRAINING OF YOUTH WORKERS** **(TARGET: 5 Youth Workers)** **Orientation, Life skills Development and Technical Training:**				
SN10.01.01		.01 Orientation and Life skills development training for youth workers for an average of 10 days per youth worker (ref. SL 11.01.01)	PC Sum	-	-	R 10 000.00
SN10.01.02		.02 Technical Skills Training for youth workers for an average of 80 days per youth worker (ref. SL 11.01.02)	PC Sum	-	-	R 30 000.00
SN10.01.03		.03 Provide Medical Surveillance	PC Sum	-	-	R 6 600.00
		The above items are only applicable if NYDA do not fund the specific training.				
		Profit and attendance on condition that services and cost has been incurred (on items 113.01.01, 113.01.02 and 113.01.03 above)	%	R 46 600.00	..... %	
SN 07.01		Payment Reduction per trainee due to not meeting the training target (ref. SL 11.03)	-	Youth-worker	-R 2 500.00	Rate Only
	111.02	**TRAVELING DURING ON-SITE TRAINING:** **Practical Work based Experiential training for 10 days each (ref. SL 11.02.01)**				
		.01 Traveling (based on R20 per day return trip/youth worker)	PC Sum	-	-	R 6 000.00
		.02 Profit and attendance on condition that services and cost has been incurred (on item .01 above)	%	R 6 000.00	..... %	
	Carried forward					

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SN10.02	111.03	**EMPLOYMENT OF YOUTH WORKERS**				
		Employment of Youth Workers	PC Sum	-	-	R 100 000.00
		The unit of measurement shall be the number of youth workers at the labour rate of **R 121.28** per day on Training as per EPWP Ministerial Determination multiplied by the period employed in months and the rate tendered shall include full compensation for all costs associated with the employment of youth workers and for complying with the conditions of contract. The cost for the training shall be excluded from this item. This item is based on 9 months appointment for youth workers				
		Profit and attendance on condition that services and cost has been incurred (ref. SL 11.04.02) 113.03	%	R 100 000.00	..... %	
	111.04	**PROVISION OF EPWP DESIGNED OVERALLS AND HARD HATS TO YOUTH WORKERS**				
SN10.04.01		Supply EPWP branded 2 x overalls, safety boots and 1 x EPWP branded hard hat to youth workers (ref. SL 11.05.01)	PC Sum	-	-	R 7 000.00
SN10.04.04		Profit and attendance on condition that services and cost has been incurred (ref. SL 11.05.02) 113.04	%	R 7 000.00	..... %	
	111.05	**PROVISION OF BASIC TOOLS FOR YOUTH WORKERS**				
SN 05		Provide all youth workers with prescribed tools for their respective trades. Specification for the mentioned tools to be provided by the Service Provider. These tools will become the property of the youth workers after the completion of the programme (ref. SL 11.06.01)	PC Sum	-	-	R 8 000.00
		Profit and attendance on condition that services and cost has been incurred (ref. SL 11.06.02) 113.05	%	R 8 000.00	..... %	
	111.06	**APPOINTMENT OF YOUTH TRAINING COORDINATOR (TEAM LEADER/S)**				
		Appointment of Youth Team Leader/s for the duration of the contract (ref. SL 11.07.01)	PC Sum	-	-	R 8 000.00
		Profit and attendance on condition that services and cost has been incurred 113.06	%	R 8 000.00	..... %	
	111.07	**LIAISON WITH SERVICE PROVIDER** (ref. SL 11.08)	hours	100.00		
	111.08	**LOGISTICS FOR EXIT WORKSHOP**				
		Provide logistic items for Exit Workshop/ Graduation (Catering, Orange Golf T-Shirts, Venue Hire and Sound System).	PC Sum	-	-	R 6 000.00
		Profit and attendance on condition that services and cost has been incurred 106.08	%	R 6 000.00	..... %	
	Carried forward					

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
	112.00	**REGISTRATION FOR BLUE DROP CERTIRTIFICATION**				
	112.01	Obtain all relevant information from different authorities, complete and dispatch the application forms, and ensure that registration is completed on behalf of the Department of Public Works	No.	3		
	113.00	**CONTRACT PARTICIPATION GOALS (CPG) DESCRIPTION**				
	113.01	**MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS** Provision is made for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.2. Material to the value of R1 700 000.00 should be purchased from local manuafacturers as defined in the CPG specifications in terms of locality, based on determination by PQS taking into account specific project variables. (The CPG monetary allowances will be adjusted based on the awarded tender amount excluding allowances and VAT)				
		.01 Allowance for monitoring and monthly reporting on material purchased from Local Building Material Suppliers by main contractor and subcontractors.	%	-	5%	R 85 000.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 85 000.00
		.03 Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 85 000.00
	113.02	**MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS** Provision is made for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.3. Material to the value of R1 700 000.00 should be purchased from local suppliers as defined in the CPG specifications in terms of locality, based on determination by PQS taking into account specific project variables. (The CPG monetary allowances will be adjusted based on the awarded tender amount excluding allowances and VAT)				
		.01 Allowance for monitoring and monthly reporting on material purchased from Local Building Material Suppliers by main contractor and subcontractors.	%	-	5%	R 85 000.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 85 000.00
		.03 Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 85 000.00
Carried forward						

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
	113.03	**MINIMUM TARGETED LOCAL LABOUR SKILLS DEVELOPMENT**				
		Provision is made for the Minimum Targeted Local Labour Skills Development CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.4. This allowance is for the cost for a suitably qualified and experienced training service provider appointed by the main contractor.	PC Sum	-		R 350 000.00
		.01 Allowance for monitoring and monthly reporting on training provided by main contractor and subcontractors.	%	-	5%	R 17 500.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 17 500.00
		.03 Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 17 500.00
	113.04	**MINIMUM TARGETED ENTERPRISE DEVELOPMENT**				
		Provision is made for (7.5) % compulsory subcontracting to SMMEs in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.1. The percentage is the contractors allowance for the P&G's for the (insert percentage)% sub-contractors (SMME's).The PQS is to define the actual P&G items applicable to the SMME's e.g. scaffolding , PPE etc.				
		A provisional amount has been allowed for in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.5. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting.	PC Sum	-	-	R 2 870 000.00
		.01 Allowance for monitoring and monthly reporting on SMME subcontracting by main contractor and subcontractors including training provided.	%	-	1%	R 28 700.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	1%	R 28 700.00
		.03 Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	-	3%	R 86 100.00
Carried forward						

SCHEDULE No. A1: PRELIMINARY AND GENERAL **PRELIMINARY AND GENERAL**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	113.05	**MINIMUM TARGETED SKILLS DEVELOPMENT GOALS** A provisional amount has been allowed for the Minimum Targeted Development CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.6. • stipends payable to the beneficiaries • appointment of training coordinator • appointment of mentor (where applicable) • appointment of training service providers • other additional costs as per table 3 of the Standard	PC Sum	-		R 318 000.00
		.01 Allowance for monitoring and monthly reporting on skills development by main contractor and subcontractors.	%	-	5%	R 15 900.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 15 900.00
		.03 Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 15 900.00
	113.06	**NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME** The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Training and Development Programme CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.7. The contractor to price all applicable elements of this BOQ section. Refer to EPWP-NYS portion in BOQ				
		.01 Allowance for monthly reporting based on the implementation of the EPWP-NYS as per the specifications and EPWP-NYS BOQ all inclusive of associated costs to the contractor.	%	-	5%	R 9 988.00
	113.07	**LABOUR INTENSIVE PARTICIPATION GOAL** Labour Intensive Participation Goal - Labour in tensive works to the value of R2,250,000.00 should be purchased from local suppliers as defined in the CPG specifications in terms of locality, based on determination by PQS taking into account specific project variables. Allowance for monitoring and monthly reporting on Works executed by means of Labour Intensive methods by main contractor and subcontractors.				
		.01 Allowance for monitoring and monthly reporting on Works executed by means of Labour Intensive methods by main contractor and subcontractors.	%	-	2%	R 45 000.00
		.02 Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	-	5%	R 112 500.00
TOTAL - CARRIED TO CALCULATION OF TENDER FINAL SUMMARY: PRELIMINARY AND GENERAL						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK

SUMMARY OF SCHEDULE OF QUANTITIES: CIVIL REPAIR WORK

		TOTAL SUMMARY
SCHEDULE No. A2:	INSTALLATION C1.R: STRUCTURAL AND BUILDING	R
SCHEDULE No. A3:	INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES	R
SCHEDULE No. A4:	INSTALLATION C3.R: FENCING, CLEANING OF BUILDINGS, SITE KEEPING AND PEST CONTROL	R
SCHEDULE No. A5:	INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS	R
SCHEDULE No. A6:	INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS	R
SCHEDULE No. A7:	INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE	R

TOTAL OF SCHEDULE OF QUANTITIES - REPAIR WORK CARRIED TO CALCULATION OF TENDER SUM R

SIGNED ON BEHALF OF TENDERER:

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/016AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A2: **INSTALLATION C1.R: STRUCTURAL AND BUILDING** **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	200.00	**STRUCTURAL AND BUILDING**				
	201.00	**ROOFS: CLADDING AND SHEETING**				
BA.01	201.01	**Supply, delivery, install and repair of cranks and bullnoses:**				
		.01 Cranks	m	15		
		.02 Bullnoses	m	15		
BA.02	201.02	**Remove existing cladding and sheeting:**				
		.01 Galvanised sheet metal roof covering	m^2	250		
		.02 Metal roof covering	m^2	100		
BA.03	201.03	**Remove and store existing cladding and sheeting**				
		.01 Galvanised sheet metal roof covering	m^2	100		
		.02 Metal roof covering	m^2	100		
BA.04	201.04	**Re-erect: stockpiled cladding and sheeting**				
		.01 Galvanised sheet metal roof covering	m^2	10		
		.02 Metal roof covering	m^2	20		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
BA.05	**201.05**	**Supply and install cladding and sheeting**				
		.01 0.6mm Thick galvanised IBR or equivalent approved sheeting with chromadek silicone polyester finish on one side and chromadek finish on the other side in:				
		.01 Roof covering with pitches exceeding 15°, fixed to timber or steel purlins	m^2	250		
		.02 0.8mm Thick galvanised IBR or equivalent approved sheeting with chromadek silicone polyester finish on one side and chromadek finish on the other side in:				
		.01 Roof covering with pitches exceeding 15°, fixed to timber or steel purlins	m^2	150		
BA.06	**201.06**	**Supply and install sundry items, etc:**				
		.01 0.8mm Thick galvanised sheet iron flashings with chromadek silicone polyester finish to one side of sundry items to IBR or concealed fixing roof sheeting complete as detailed in BA 03.01:				
		.01 Ridge flashing	m	35		
		.02 Side wall flashing	m	35		
		.03 Gable flashing	m	20		
		.04 Valley flashing	m	20		
BA.07	**201.07**	**Supply and install roof insulation:**				
		.01 White Bubble Foil insulation panels fixed on white straining wires to:				
		.01 Roofs	m^2	200		
		.02 420 RSA heavy duty reinforced reflective Aluminium Foil	m^2	23		
BA.08	**201.08**	**Remove existing rainwater goods:**				
		.01 Non-supporting box gutter	m	95		
		.02 Self supporting box	m	85		
		.03 Down pipes	m	115		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BA.09	**201.09**	**Supply and install rainwater goods:**				
		.01 0.8 mm thick galvanised sheeting with chromadek silicone polyester finish to one side in:				
		.01 100 x 75 mm non-supporting box gutter	m	25		
		.02 125 x 100 mm self supporting box	m	25		
		.03 125 x 100 mm down pipe	m	20		
		.04 100 x 100 mm down pipe	m	20		
BA.09		.02 0.6 mm thick galvanised sheeting with chromadek silicone polyester finish to one side in:				
		.01 100 x 75 mm non-supporting box gutter	m	15		
	201.10	**Roof rehabilitation:**				
BA.11		.01 Roof rehabilitation of Corrigated Iron Roofs	m^2	50		
BA.12		.02 Supply and install additional fixing screws	No.	100		
BA.13		.03 Re-align down pipes, gutters incl sealing joints	m	35		
BA.14		.04 Remove and re-erect birdproofing	m^2	12		
BA.15		.05 Prepare existing galvanised or previously painted roof sheeting and paint with a polyurethane coating system as per technical specification BA 03.02	m^2	55		
		.06 Rehabilitate exisitng thatch roofs	m^2	25		
	201.11	**Miscellaneous items:**				
BA.10		.01 Items :				
		.01 100 mm wide polyester waterproofing membrane, including placing and all related work	m	23		
		.02 200 mm wide polyester waterproofing membrane, including placing and all related work	m	23		
		.03 Supply and install a galvanised mild steel Whirlybird size: 670 mm x 730 mm with an airflow of 4695 m^3/h	No.	1		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
	202.00	**CARPENTRY AND JOINERY FOR ROOFS AND CEILINGS**				
BB.01	**202.01**	**Alterations and repairs to existing structures:**				
		.01 Remove:				
		.01 Roof Timbers	m	12		
		.02 Fascia and barge boards	m	12		
		.03 Softboard, plaster board or fibre cement ceiling boards including cornices, cover and jointing strips	m^2	20		
		.04 76 mm gypsum coved cornices	m	9		
		.05 Gypsum or fibre cement ceiling boards including cover and jointing strips	m^2	20		
		.06 Gypsum or fibre cement coved cornice (ceilings not removed)	m	8		
		.07 Timber cornice from walls	m	8		
		.08 Ceiling cover strips in patches (ceilings not removed)	m	8		
		.02 Re-align and refix:				
		.01 Soft board, plaster board or fibre cement ceiling boards including cornices, cover and jointing strips	m^2	20		
		.02 76 mm gypsum coved cornices	m	7		
		.03 8 mm x 35 mm hardwood ceiling or panelling cover strips	m	7		
		.04 19 mm hardwood half-round ceiling or panelling cover strips	m	7		
		.05 38 mm hardwood halfround cover strips	m	7		
		.06 45 mm x 6 mm gypsum or timber cover strips	m	7		
		.07 Gypsum plaster coved cornice including silicone sealant in contact joint with plastered brickwork	m	7		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BB.02	**202.02**	**Supply and install new items measured by length:**				
		.01 225 x 10 mm thick pressed fibre cement fascia, including painting, etc.	m	11		
		.02 225 x 10 mm thick pressed fibre cement barge board, including painting, etc.	m	8		
		.03 75 x 50 mm SAP purlins	m	8		
		.04 38 x 114 mm Wrought sloping SAP rafters	m	8		
		.05 38 x 114 mm Wrought sloping SAP wall plates	m	8		
		.06 38 x 114 mm Wrought sloping SAP timber beams	m	8		
		.07 38 x 114 mm Wrought sloping SAP timber webs	m	8		
BB.03	**202.03**	**Ceilings:**				
		.01 Gypsum board with metal H-profile jointing strips:				
		.01 6,4 mm ceilings	m^2	24		
		.02 6,4 mm ceilings in patchwork	m^2	12		
		.03 Extra over 6,4 mm ceiling for trap door with	No.	5		
		.02 Trapdoors and duct covers:				
		.01 6,4 mm gypsum board trapdoor to new or existing ceilings	No.	5		
		.02 6 mm thick x 610 mm x 640 mm mineral fibre acoustic board in duct cover	No.	1		
		.03 Fibre cement with metal H-profile jointing strips:				
		.01 6 mm ceilings	m^2	3		
		.04 Gypsum cornices:				
		.01 76 mm gypsum coved cornices	m	6		
		.02 76 mm gypsum coved cornices patchwork	m	6		
		.03 100 mm gypsum coved cornices	m	6		
		.04 100 mm gypsum coved cornices in patchwork	m	6		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought forward						
BB.03	**202.03**	.05 Cover strips:				
		.01 40 mm x 6 mm gypsum or timber cover strips in patchwork (no ceiling replacement)	m	5		
		.02 45 mm x 10 mm timber cover strips in patchwork (no ceiling replacement)	m	5		
		.06 Roof insulation:				
		.01 54mm thick bubble fibre insulation or similar approved	m^2	23		
		.07 Mineral fibre acoustic suspended ceiling tiles (masonite sound stop orbit special profile or equal approved) on and including concealed galvanised mild steel tees and strap hangers:				
		.01 600 mm x 1200 mm x 15 mm thick pre-painted tiles in patchwork	No.	5		
BB.04	**202.04**	**Joinery:**				
		.01 Items measured by linear metre:				
		.01 19 mm hardwood quadrant bead cornice or finishing strip	m	5		
		.02 38 mm diameter hardwood half round ceiling cover strips	m	5		
BB.06	**202.05**	**Repairs to damaged masonry, plastering and surface finishes:**				
		.01 Items measured by No:				
		.02 Making good to end of timber purlins, - rafters, etc. irrespective of size and profile, protruding through brick walls, etc.	No.	2		
		.03 Making good where timber purlins or - rafters, irrespective of size are removed or replaced, including closing ends of throughs for sheet metal roof sheeting, complete	m	12		
BB.08	**202.06**	**Painting of existing members in overhangs:**				
		.01 Members with creosote	m	15		
		.02 Members with paint	m	25		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	203.00	**WALLS**				
SABS 8.3	203.01	**EARTHWORKS (SMALL WORKS)**				
		SCHEDULED ITEMS				
		.01 Excavate for restricted foundation, footings and trenches in all materials and use for backfill or embankment or dispose	m^3	2		
		.02 Break up, hack of and remove existing concrete	m^3	2		
		.03 Importing, placing and compacting approved G6 material in layers of 150mm from commercial sources or from borrow pits to 95% MOD AASHTO	m^3	2		
		.04 Extra over item 203.01.01 above for:				
		.01 Intermediate excavation	m^3	4		
		.02 Hard rock excavation	m^3	2		
SABS 1200 G	204.00	**CONCRETE (STRUCTURAL)**				
8.4 8.4.3	204.01	**Strength concrete:**				
		.01 Class 20 MPa concrete in aprons including rough formwork	m^3	2		
		.02 Class 25 MPa concrete in floors	m^3	2		
		.03 Class 25 MPa concrete in walls	m^3	1		
		.04 Class 25 MPa concrete in strip footings	m^3	1		
SABS 1200 G	205.00	**STRUCTURAL FORMWORK**				
	205.01	**Rough form work**				
		.01 Wall below ground	m^2	2		
	205.02	**Smooth form work**				
		.01 Smooth vertical walls inside	m^2	12		
8.2.5	205.03	**Narrow Widths not exceeding 300mm:**				
		.01 Floors, etc	m	12		
SABS 1200 H	206.00	**STRUCTURAL REINFORCEMENT**				
	206.01	**High-tensile steel welded mesh and steel bars:**				
		.01 Ref No 193 mesh in concrete	m^2	6		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
SABS 1200 H	**207.00**	**STRUCTURAL STEELWORK**				
8.3.1	**207.01**	**Supply and fabrication of steelwork:**				
		.01 Jointing by bolting:				
		.01 I-section columns with flat section base plates and end plates	t	1		
		.02 I-section rafters with flat section end plates, etc.	t	1		
		.03 Cold rolled lipped channel purlins with angle section fixing cleats	t	1		
		.04 Angle section bracing with flat section connection plates	t	1		
SABS 1200 8.3.1	**207.02**	**Delivery to site:**				
		.01 Normal delivery:				
		.01 Columns, rafters, purlins and braces for carport structures complete as scheduled under 8.3.1 above	t	1.0		
SABS 1200 H	**207.03**	**Erection to site:**				
8.3.1		.01 Columns, rafters, purlins and braces for carport structures complete	t	1.0		
		.02 M16 anchor bolts 300mm deep	No.	13		
8.3.6	**207.04**	**Holding-down (HD) bolts:**				
		.01 M16 x holding-down bolt with 150 x 320 x 10mm holded plate	No.	7		
		.02 M16 x long holding-down bolt on 8mm thick cleath	No.	7		
		.03 M12 x holding-down bolt with 80 x 400 x 8mm holded plate	No.	7		
	208.00	**BUILDING WORK**				
BD.01	**208.01**	**Doors and windows:**				
		.01 Steel door frames:				
		.01 1,6 mm thick pressed steel door frame for door size 813 mm x 2032 mm high suitable for 230 mm wall	No.	1		
		.02 Steel roll-up door:				
		.01 1.6mm thick chromadek steel roll-up door with frame and locking device for 2400 mm x 2135 mm high opening in 230 mm walls	No.	1		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
BD.02	**208.02**	**Wall panelling:**				
		.01 Cover strips:				
		.01 19 mm hardwood quadrant bead	m	12		
		.02 Supply, delivery and installation of 12 mm thick plywood wall panelling, jointing and cover strips similar to existing	m²	20		
		.03 Supply, delivery and installation of 12 mm thick hardwood floor panelling, jointing and cover strips similar to existing	m²	20		
		.04 Fibre-cement panels				
		.05 6 mm panel boards	m²	20		
BD.03	**208.03**	**Joinery:**				
		.01 Items measured by No:				
		.01 Solid laminated door, 40 mm thick x 813 mm wide x 2 032 mm high with meranti veneer both sides	No.	2		
		.02 Semi-solid core flush panel door, 40 mm thick x 813 mm wide x 2032 mm high with meranti veneer facing both sides	No.	1		
		.03 Semi-solid cupboard door, 40 mm thick x 610 mm wide x 2 032 mm high with meranti veneer to both sides	No.	1		
BD.04	**208.04**	**Ironmongery, steelwork, glass, wall finishings, etc:**				
		.01 Items measured by No.:				
		.01 Standard brass peg and stay to residential steel windows	No.	18		
		.02 Standard brass sliding stay to residential steel windows	No.	18		
		.03 Residential type steel window handle	No.	7		
		.04 100 mm brass barrel bolt	No.	9		
		.05 Cupboard pull handles with push button lock and two keys	No.	22		
		.06 Cupboard pull handles	No.	22		
		.07 Four lever mortice lockset with one pair handles chrome type B3081, two keys, back plates and striking plate	No.	12		
		.08 Indicator bolt for type B3632 similar to existing with display, back plates and striking plate	No.	12		
		.09 Rim cylinder night latch with two keys and striking plate	No.	18		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.		DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward							
BD.04	**208.04**	.10	6mm thick mirror glass 450mm x 600mm wide	No.	2		
		.11	15 mm roller ball catch with striking plate	No.	5		
		.12	Stainless steel soap dish type B2789	No.	5		
		.13	Striking plate for single door	No.	12		
		.14	White glazed ceramic toilet roll holder	No.	5		
		.15	Stainless steel single toilet tissue holder	No.	5		
		.16	Aluminium weather strips for single doors	No.	5		
		.17	19 mm diameter chromium plated towel or hanging rail 1200 mm long including end brackets	No.	5		
		.18	380 mm x 610 mm high bathroom cabinet with mirror, two doors, handles and one shelve	No.	6		
		.19	150mm natural anodized aluminium disabled sign type B2312 or similar approved	No.	3		
		.20	150mm natural anodized aluminium male sign type B2313 or similar approved	No.	5		
		.21	150mm natural anodized aluminium female sign type B2314 or similar approved	No.	6		
		.22	Four lever mortice lockset with one pair handles chrome type B2088, two keys, back plates and striking plate	No.	3		
		.23	Garage door lock, including two keys	No.	5		
		.24	Standard CP door handles similar to existing	No.	2		
		.25	Aluminium Sliding Shower door "PIVOT"with range of up 1050mm wide x 1800mm high	No.	3		
		.26	Washing line with 2 fully galvanised posts and stays, 5m apart and 4 plastic coated washing lines complete with straining bolts concrete base, etc	No.	4		
Carried forward							

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING — CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
BD.04	**208.05**	**Window blinds:**				
		.01 Fabric vertical blinds as approved by the Engineer for the window frames:				
		.01 Windows size 1245mm high x 1511mm wide	No.	3		
		.02 Windows size 1540mm high x 1511mm wide	No.	2		
		.03 Windows size 1540mm high x 1022mm wide	No.	5		
		.04 Windows size 1245mm high x 2000mm wide	No.	1		
		.05 Windows size 1540mm high x 2000mm wide	No.	1		
		.02 Aluminium framed insect mesh to fit standard size window	No.	6		
BD.04	**209.00**	**MISCELLANEOUS**				
BD.04	**209.01**	**Various items:**				
		.01 Items measured by linear metre:				
		.01 Silicone sealant in 6 mm contact joint between sanitary fittings and wall finishes	m	14		
		.02 Polyurethane sealant in 12 mm expansion joint in face brick walls	m	12		
		.03 Putty in patchwork to steel sashes	m	5		
		.04 Regular duty double curtain track including gliders, hangers, brackets, stopped ends, etc.	m	8		
		.05 Plastic coated washing line	m	12		
		.06 120 mm x 10 mm thick PEI Class 5 porcelain window sills as approved by Engineer	m	5		
		.07 230mm wide pre cast lintel	m	6		
		.08 120mm wide fibre cement window sill	m	4		
		.09 External cement plaster in beam filling	m	5		
		.10 New Granite counter tops up to 600mm wide	m	6		
		.11 Galvanised Inter-link handrail systems, complete with stachions and bend by Mentis or similar approved	m	10		
		.12 Stainless steel inter-link handrail systems, complete with stachions and bend by Mentis or similar approved	m	10		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BD.04	**209.01**	.02 Items measured by area:				
		.01 6mm thick white glazed wall tiles to existing painted or plastered walls as approved by the Engineer	m^2	10		
		.02 4 mm clear float glass to steel sashes with putty	m^2	5		
		.03 4 mm obscure float glass to steel sashes with putty	m^2	8		
		.04 4 mm obscure glass to steel sashes with putty	m^2	6		
		.05 115 mm thick brick walls	m^2	15		
		.06 230 mm thick brick walls	m^2	5		
		.07 230mm thick face brick walls buff satin - FBS or similar approved	m^2	3		
		.08 Internal cement plaster to walls	m^2	3		
		.09 External cement plaster to walls	m^2	3		
		.10 6mm clear float laminated glass	m^2	2		
		.11 300mm x 600 mm "Chocolate Mat" porcelain foor tiles	m^2	10		
		.12 300mm x 600mm "Chocolate Polished" porcelain floor tiles	m^2	12		
		.13 115mm thick face brick walls similar to existing	m^2	11		
BD.05	**209.02**	**Alterations and repairs to existing structures:**				
		.01 Repair and refix:				
		.01 Single doors	No.	13		
		.02 Double doors	No.	5		
		.03 Windows	No.	5		
		.04 Door frames	No.	3		
		.05 Aluminium sliding windows	No.	2		
		.06 Tip up single garage door including servicing opening mechanisms, locks, etc.	No.	6		
		.07 Shower door including replacing broken or missing roller guide wheels	No.	9		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BD.05	**209.02**	.02 Remove, Repair and refix:				
		.01 Timber single or double door	No.	2		
		.02 Peg and stay to residential steel window	No.	5		
		.03 Sliding stay to residential steel window	No.	2		
		.04 Window handle to residential steel window	No.	2		
		.05 Cupboard locksets	No.	5		
		.06 Mortice lockset with handles	No.	6		
		.07 All types of locksets with handles	No.	6		
		.08 All types of door handles	No.	9		
		.09 Mirror glass 450mm x 600mm wide	No.	2		
		.10 15 mm roller ball catch with striking plate	No.	2		
		.11 Soap dish	No.	5		
		.12 Striking plates	No.	9		
		.13 Toilet tissue holders	No.	3		
		.14 Weather strips for single doors	No.	3		
		.15 Towel or hanging rail including end brackets	No.	2		
		.16 Bathroom cabinets	No.	2		
		.17 Standard arm door closers	No.	2		
		.03 Break out/hack up/demolish and remove:				
		.01 Concrete strip footings	m^3	2		
		.02 115 mm brick walls	m^2	15		
		.03 230 mm brick walls	m^2	6		
		.04 External plaster to walls	m^2	25		
		.05 Internal plaster to walls	m^2	25		
		.06 6mm thick white glazed wall tiles to existing painted or plastered walls as approved by the Engineer	m^2	25		
		.07 Damaged sections of putty in steel sashes	m	23		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BD.05	**209.02**	.08 6 mm clear float laminated glass to windows	m^2	2		
		.09 4 mm clear float glass to steel sashes with putty	m^2	2		
		.10 4 mm obscure glass to steel sashes with putty	m^2	2		
		.04 Take out and remove windows and doors from brickwork and prepare openings for and build in new windows, door frames, etc., including making good finishes and reveals to match existing (new windows, doors and frames elsewhere):				
		.01 1,6 mm thick pressed steel door frame for door size 813 mm x 2032 mm high suitable for 230 mm wall	No.	2		
		.02 Tip up garage door with frame size 2 400mm x 2135 mm high from 230 mm wall	No.	1		
		.03 650mm x 1500mm wide steel window frame	No.	1		
		.04 650mm x 505mm wide steel window frame	No.	1		
		.05 1815mm x 2950mm wide steel window frame	No.	2		
		.06 1270mm x 1975mm wide steel window frame	No.	1		
		.07 1260mm x 1490mm wide steel window frame	No.	2		
		.08 960mm x 1200mm wide steel window frame	No.	2		
		.09 960mm x 2035mm wide steel window frame	No.	1		
		.10 1260mm x 1200mm wide steel window frame	No.	2		
		.05 Clean existing surfaces:				
		.01 White glazed tiles to walls including cleaning and refilling/grouting of joints	m^2	45		
		.06 Repair and seal:				
		.01 Crack in plastered wall with plaster	m	55		
		.02 Joints in concrete walls with non-shrink grout not exceeding 20mm wide x 20mm deep	m	23		
		.03 Concrete structures with non-shrink grout including removal and re-installation of concrete beams on concrete walls not exceeding 150mm wide x 20mm deep	m	25		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING — CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	210.00	**FLOORS**				
BE.01	**210.01**	**Floor screeds:**				
		.01 35 mm thick granolithic screed finish	m^2	18		
BE.02	**210.02**	**Joinery:**				
		.01 Items measured by linear metre:				
		.01 19 mm x 76 mm hardwood skirting with quadrant bead	m	12		
		.02 Items measured by area:				
		.01 75mm x 10 mm thick PEI Class 4/5 Clay floor tiles	m^2	12		
BE.03	**210.03**	**Floor tiling and finishes, etc:**				
		.01 Items measured by linear metre:				
		.01 35 mm x 150 mm hardwood wall skirting in face brick walls	m	15		
		.02 Items measured by area:				
		.01 75 mm x 10 mm thick PEI Class 4/5 Clay/Porcelain floor tiles as approved by Engineer	m^2	16		
		.02 250 micron damp proofing under solid floors	m^2	23		
		.03 300 mm x 300 mm x 8 mm thick, acid resistant, PEI Class 4, Ceramic floor tiles as approved by Engineer	m^2	40		
		.04 500 mm x 500 mm x 10 mm thick, PEI Class 4/5 Porcelain, floor tiles as approved by Engineer	m^2	5		
		.05 500mm x 500mm diagonal tiles manufactured from 100% stain proof miracle fibre (polypropylene)	m^2	5		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BE.03	**210.03**	.02 .06 405 mm x 405 mm thick PEI Class 4/5 Clay floor tiles as approved by Engineer	m^2	25		
		.07 40mm x 40mm x 6mm thick PEI Class 4/5 Mosaic floor tiles as approved by Engineer	m^2	4		
		.08 Existing pavelite or equal approved skim coat to receive vinyl floor titles	m^2	4		
		.03 Carefully remove, stockpile on site for re-use and refix:				
		.01 Hardwood skirting with quadrant bead	m^2	4		
BE.04	**210.04**	**Alterations and repairs to existing structures:**				
		.01 Remove:				
		.01 Vinyl floor tiles or sheeting	m^2	12		
		.02 Hardwood skirting with quadrant bead	m	6		
		.02 Break up and remove:				
		.01 Concrete surface beds (up to 200 mm thick)	m^3	2		
		.02 Small sections of concrete surface beds (up to 200 mm thick)	m^3	5		
		.03 Cleaning and sealing of floor surfaces:				
		.01 Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m^2	15		
		.04 Break out/hack up and remove:				
		.01 Concrete apron slabs	m^3	2		
		.02 Cement plaster screed on floors	m^2	8		
		.03 Cement plaster screed on floors in patches	m^2	4		
		.04 Granolithic screed on floors in patches	m^2	8		
		.05 Terrazzo tiles to floors in patches	m^2	6		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BE.04	**210.04**	.06 Re-align and refix:				
		.01 Hardwood skirting with quadrant bead	m	23		
		.02 230 mm x 230 mm x 22 mm terrazzo nosing tiles on treads in patches	m	23		
		.07 Clean existing surfaces:				
		.01 Terrazzo tiles to floors including refilling of joints	m^2	7		
		.08 Clean and remove stains and marks:				
		.01 Vinyl floor tiles using an approved solvent cleaner and apply two coats wax polish	m^2	6		
		.02 Unglazed ceramic floor tiles using an approved chemical detergent and hydrochloric acid	m^2	23		
		.03 Terrazzo floor tiles using an approved chemical detergent	m^2	12		
		.09 Refix, sand down to smooth and even surface and seal with approved sealer as described in Item BE 03.01.11 of the Project Specification:				
		.01 Wood block flooring	m^2	2		
		.10 Remove sticky adhesive and clean concrete floors,				
		.01 Garage floors, etc	m^2	5		
		.11 Rake out joints, clean and prepare to receive joint filler:				
		.01 15 mm wide sealed expansion joint in concrete surface bed	m	15		
		.02 Cut existing reinforced concrete slab on both sides of existing expansion joint with an angle grinder to a width of 37 mm and a depth of 20 mm, remove concrete and joint material up to 20 mm deep, clean and prepare to receive new joint system	m	3		
		.12 Carefully lift, clean and temporary store for later re-use:				
		.01 225 mm x 225 mm x 25 mm thick terrazzo floor tiles in patches	m^2	3		
		.13 Re-lay or re-install:				
		.01 225 mm x 225 mm x 25 mm thick terrazzo floor tiles in patchwork including new grouting	m^2	3		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	211.00	**FITTINGS**				
BH.01 BH.02	211.01	**Steelwork and joinery:**				
		.01 Items measured by No:				
		.01 Cupboard ironmongery 0.8mm thick steel baked enamel with 32mm postform composite laminate tops SANS approved:				
		.01 Hinge for kitchen cupboard door	No.	9		
		.02 Kitchen cupboard pull handles	No.	7		
		.03 Base double bowl sink and unit size 1800 mm x 533 mm x 865 mm high with three doors, and one shelf	No.	2		
		.04 Base unit size 1800 mm x 533 mm x 865 mm high with three doors, four drawers and one shelf	No.	2		
		.05 Wall unit size 1500 mm x 533 mm x 865 mm high with three doors, and one shelf	No.	5		
		.02 Items measured by linear metre:				
		.01 32 mm chipboard with postform composite laminate finish on one side and profiled edges where so described:				
		.01 Work top 600 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit with 32 mm x 1,2mm "Formica" veneered edge strips	m	6		
		.02 32 mm hardwood meranti shelves and profiled edges where so described:				
		.01 Work top 500 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit	m	3		
		.03 18mm plywood 1220 mm x 2440 mm wide:				
		.01 18 mm plywood	No.	3		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
BH.03	**211.02**	**Alterations and repairs to existing fittings:**				
		.01 Service, repair and refix kitchen cupboards as per Project Specification BH 03.01.02:				
		.01 Kitchen cupboard door	No.	2		
		.02 Kitchen cupboard drawer including sliders	No.	2		
		.02 Removal of existing steel or wooden kitchen cupboards:				
		.01 Sink, base or wall unit up to 2000mm long	No.	2		
		.02 Existing counter tops up to 600mm wide	m	3		
	212.00	**PAINT WORK**				
BJ.01	**212.01**	**Paint to new unpainted surfaces:**				
		.01 Steel surfaces:				
		.01 High gloss enamel paint:				
		.01 I-section columns and rafters	m^2	60		
		.02 Lipped channel purlins	m^2	60		
		.03 Angle section bracing	m^2	60		
		.02 Super universal high gloss enamel paint:				
		.01 Door frames	m^2	35		
		.02 Doors and frames	m^2	25		
		.03 Garage doors and frames	m^2	50		
		.04 Residential cottage type glazed windows	m^2	24		
		.02 Plaster or concrete surfaces:				
		.01 Alkali resistant solvent based (modified alkyd) stoep paint:				
		.01 Thresholds and window sills	m^2	30		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BJ.01	**212.01**	.02 .02 Interior quality acrylic emulsion paint with smooth sheen appeal:				
		.01 Walls	m^2	2 500		
		.02 Walls in patchwork	m^2	50		
		.03 Ceilings in patchwork	m^2	250		
		.03 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:				
		.01 Walls in patchwork	m^2	60		
		.04 Exterior quality pure acrylic emulsion paint with Teflon:				
		.01 Walls and piers	m^2	90		
		.03 Fibre cement surfaces:				
		.01 Interior quality super acrylic copolymer PVA paint:				
		.01 Ceilings and cornices	m^2	650		
		.02 Ceilings in patchwork	m^2	25		
		.03 Wall panelling in patchwork	m^2	30		
		.02 Exterior quality super acrylic copolymer PVA paint:				
		.01 Ceilings and cornices	m^2	150		
		.02 Eaves covering	m^2	80		
		.03 Vertical eaves closures	m^2	60		
		.03 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:				
		.01 Ceilings and cornices	m^2	700		
		.02 Window sills	m^2	20		
		.04 Softboard surfaces:				
		.01 Interior quality super acrylic copolymer PVA paint:				
		.01 Ceilings and cornices	m^2	90		
		.02 Ceilings in patchwork	m^2	30		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BJ.01	212.01	.05 Galvanised steel surfaces:				
		.01 Super universal high gloss enamel paint:				
		.01 Gutters in patchwork	m^2	50		
		.02 Rainwater downpipes in patchwork	m^2	50		
		.06 Wood surfaces:				
		.01 Primer and undercoat:				
		.01 Wooden structure for gauzed covered	m^2	40		
		.02 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:				
		.01 Doors	m^2	40		
		.02 Cupboard doors	m^2	10		
		.03 Pelmets	m^2	8		
		.04 Rails, etc exceeding 150 but not exceeding 300 mm girth	m	8		
		.03 Water resistant polyurethane clear matt varnish:				
		.01 Doors	m^2	30		
		.02 Skirting & Quad beads	m^2	15		
		.03 Cupboard doors	m^2	9		
		.04 Cupboards, counters, shelving, etc	m^2	15		
		.05 Pelmets	m^2	6		
		.04 Ultra violet light resistant exterior solvent based varnish:				
		.01 Doors	m^2	40		
		.07 Industrial Flooring:				
		.01 Painting of floors with Industrial Exoxy, color to match exitng. (similar to Sika or A.B.E or other approved)	m^2	85		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING — CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
BJ.02	212.02	**Paint to previously painted surfaces:**				
		.01 Concrete surfaces				
		.01 Alkali resistant solvent based (modified alkyd) stoep paint:				
		.01 Floors	m^2	500		
		.02 Window sills, etc	m^2	15		
		.03 Walls	m^2	350		
		.04 Skirting not exceeding 150 mm girth	m^2	6		
		.02 Plaster surfaces:				
		.01 Interior quality pure acrylic emulsion paint with smooth sheen appeal:				
		.01 Walls	m^2	1 600		
		.02 Exterior quality pure acrylic emulsion paint with teflon:				
		.01 Walls and piers	m^2	300		
		.02 Beams and lintels	m^2	9		
		.03 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:				
		.01 Walls	m^2	650		
		.02 Window cills	m^2	15		
		.03 Plastered concrete shelves	m^2	25		
		.04 Ceilings	m^2	600		
		.05 Granolithic skirting not exceeding 150 mm high	m	15		
		.03 Quarry tile surfaces:				
		.01 Alkali resistant solvent based (modified alkyd) stoep paint:				
		.01 Window sills	m^2	6		
		Carried forward				

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BJ.02	**212.02**	.04 Fibre cement surfaces:				
		.01 Interior quality acrylic emulsion paint with smooth sheen appeal:				
		.01 Window sills	m^2	6		
		.02 Ceilings and cornices	m^2	100		
		.02 Exterior quality super acrylic copolymer PVA paint:				
		.01 Ceilings and cornices	m^2	65		
		.02 Fascias and barge boards	m^2	17		
		.03 Window sills	m^2	9		
		.05 Soft board surfaces:				
		.01 Interior quality super acrylic copolymer PVA paint:				
		.01 Ceilings and cornices	m^2	250		
		.02 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:				
		.01 Ceilings and cornices	m^2	65		
		.06 Galvanised steel surfaces:				
		.01 Super universal high gloss enamel paint:				
		.01 Gutters	m^2	35		
		.02 Rainwater downpipes	m^2	20		
		.07 Steel surfaces:				
		.01 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:				
		.01 Residential type glazed windows	m^2	15		
		.02 Window burglar proofing or mentis expanded metal grid to steel frame in burglar proofing	m^2	8		
		.03 Doors	m^2	25		
		.04 Door frames	m^2	18		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
BJ.02	**212.02**	.07 .01 .05 Security gates	m^2	10		
		.06 Rails, posts, pipes, steel structures etc. not exceeding 50 mm diameter	m	21		
		.07 Rails, posts, pipes, steel structures etc. exceeding 50 mm dia. not exceeding 110 mm dia.	m	30		
		.08 Steel structures	m^2	30		
		.09 Gutters	m^2	12		
		.10 Down pipes	m^2	12		
		.02 Aluminium paint:				
		.01 Washing line posts not exceeding 100 mm dia.	m	15		
		.02 Welded mesh in security panels	m	15		
		.03 Alkali resistant solvent based (modified alkyd) stoep paint:				
		.01 Manhole covers	m^2	6		
		.08 Wood surfaces:				
		.01 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:				
		.01 Doors	m^2	24		
		.02 Cupboards, counters, shelving, etc.	m^2	18		
		.03 Skirtings and quadrant beads not exceeding 150 mm girth	m	30		
		.02 Water resistant polyurethane clear matt varnish:				
		.01 Doors	m^2	30		
		.02 Skirtings and quadrant beads not exceeding 150 mm girth	m	28		
		.03 Ultra violet light resistant exterior solvent based varnish:				
		.01 External doors	m^2	30		
Carried forward						

SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
BJ.03	**212.03**	**Paint to previously painted surfaces in poor condition**	m^2	500		
BJ.04	**212.04**	**Paint to previously painted surfaces to remove all previous paint to original surface**	m^2	600		
BD.04	**213.00**	**STEEL CARPORT**				
BD.04	**213.01**	**Steelwork:**				
		.01 Items measured by number:				
		.01 Steel Carport Supply and erect of 5.8m x 5.8m carport with IBR chromadek roof sheeting, with 76mm x 76mm x 2m square tubing for posts fixed to base plates incl. 75mm x 50 x 20 purlins and 150mm x 50 x 20 lip channels	No.	1		
	214.00	**DISABLED PERSON FACILITIES:**				
		.01 32 mm diameter stainless steel grab bars for disabled person facilities:				
		.01 General purpose stainless steel grab rail 90°	No.	1		
		.02 Horizontal stainless steel grab rail with an outside diameter of 32 mm fixed over WC cistern onto wall as to support 1 kN at any point of the bar	No.	1		
		.03 Vertical stainless steel grab rail with an outside diameter of 32 mm fixed onto door as to support 1 kN at any point of the bar	No.	1		
		.04 Aluminium Disabled door kicker plate	No.	2		
		.05 Disabled Long Lever basin tap	No.	2		
		.06 Facility indicator bolt for disabled facilities with one pair aNo.dized aluminium handles type B3634, display, back plates and striking plate	No.	1		
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A2: INSTALLATION C1.R: STRUCTURAL AND BUILDING						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A3: **INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES** **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	300.00	**PLUMBING, DRAINAGE AND WET SERVICES**				
	301.00	**INSPECTION AND REPORT ON EXISTING**				
		.01 Domestic water and geyser installation, including sanitary and brassware	Item	25		
	302.00	**DETAIL WORK**				
PAA 05.01.02	302.01	**Isolation, stripping, dismantling and removal of existing brassware, sanitary ware and piping:**				
PAA 05.02 PAA.02		.01 Water closets (WC):				
		.01 Vitreous china WC pan (cistern type)	No.	5		
		.02 Vitreous china WC cistern	No.	3		
		.03 Flushing mechanisms	No.	5		
		.04 Tailpipe connections to WC, including shut of valve	No.	2		
		.05 Pan connector (100mm dia)	No.	2		
		.06 Toilet seat and cover	No.	3		
		.07 Toilet flush value	No.	2		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
PAA 05.01.02 PAA 05.02 PAA.02	**302.01**	.02 Wash hand basins:				
		.01 Vitreous china wall-mounted wash hand basin	No.	2		
		.02 15 mm ø pillar taps and mixers	No.	3		
		.03 15 mm ø pipe connections to pillar taps	No.	3		
		.04 Rubber flexi p-trap or CP bottle trap	No.	3		
		.05 Plug and chain for WHB	No.	3		
		.06 Double concrete wash basin complete with pedestals	No.	4		
PAA 05.01.02 PAA 05.02 PAA.02		.03 Showers:				
		.01 CP Shower heads	No.	2		
		.02 Under-tile stop cocks	No.	1		
		.03 Shower gratings	No.	1		
		.04 Shower traps	No.	1		
		.05 Shower pan	No.	1		
		.04 Baths:				
		.01 15mm or 20mm Bath taps	No.	1		
		.02 Rubber flexi p-trap or CP bottle trap	No.	2		
		.03 Enamelled cast-iron bath tub	No.	3		
		.04 Wall-mounted bath taps (20 mm)	No.	1		
		.05 Sinks and Wash troughs:				
		.01 15mm or 22mm wall mounted taps	No.	1		
		.02 15mm or 22mm extension	No.	1		
		.03 15mm wall mounted sink mixer	No.	1		
		.04 Flexi rubber combination P-trap	No.	1		
PAA 05.01.02 PAA 05.02 PAA.02	**302.01**	.06 Urinals:				
		.01 Built-in or wall hung urinal	No.	2		
		.02 Under wall Stop tap or flush master	No.	3		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought forward						
	302.01	.06 Urinals:				
PAA 05.01.02		.03 Rubber flexi p-trap or CP bottle trap	No.	3		
PAA 05.02		.04 CP urinal spreader and tail piece	No.	2		
PAA.02		.05 Vitreous china floor-mounted urinal, including water piping and outlet	No.	2		
		.06 20 mm dia exposed flush valve	No.	2		
		.07 External:				
		.01 20mm dia. RB hose bip tap	No.	2		
		.02 110mm cast iron pipe	m	3		
		.08 Pipes installed on surface in service ducts, against walls and soffits:				
		.01 20 mm dia galvanised mild steel pipe	m	5		
		.02 15 mm dia galvanised mild steel pipe	m	3		
		.09 Pipes installed in ceiling and roof voids:				
		.01 20 mm dia galvanised mild steel pipe	m	4		
		.02 15 mm dia galvanised mild steel pipe	m	6		
		.03 22 mm dia copper pipe	m	8		
		.04 15 mm dia copper pipe	m	8		
		.10 Pipes chased in walls:				
		.01 20 mm dia galvanised mild steel pipe	m	4		
		.02 15 mm dia galvanised mild steel pipe	m	6		
		.03 22 mm dia copper pipe	m	8		
		.04 15 mm dia copper pipe	m	8		
PAA.03	**302.02**	**Isolation, stripping, dismantling and removal of existing geyser installations:**				
		.01 Isolate strip and remove domestic geyser (100 to 250 litres - electric)	No.	5		
PAA.04	**302.03**	**Re-installation of existing geyser installations at location indicated by the Engineer including pipe work including replacement of fittings, servicing and pipe work, pipe work not exceeding 10m from previous location:**				
		.01 Re-install domestic geyser (100 to 250 litres - electric)	No.	5		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PAA.05	302.04	**Supply and installation of sanitary ware and brassware:**				
		.01 Water closets (WC):				
		.01 Vitreous china WC wash-down pan with enlarged pedestal. (360mm x 405mm)	No.	5		
		.02 Vitreous china WC pan - white paraplegic low level suite	No.	2		
		.03 Vitreous china WC cistern - white 9 litres complete with lid and fitments	No.	5		
		.04 Wall and Floor Mounted Shrouded WC Pan Grade 304 (18/10) Stainless Steel 1.2 mm gauge with pressed flushing rim and integral Stainless Steel 110 'P" Trap and back entry flush pipe inlet of 38 mm. Fixed to wall and floor with eleven anchor bolts	No.	3		
		.05 3/4 " Standard "Flash master" Toilet valve, exposed back entry type CP, integral vacuum breaker, non hold open feature, with wall plate bent flush pipe and rubber pipe connector and seal	No.	2		
PAA.05		.06 1-1/4" Standard flush master flush valves, exposed type top entry with integral vacuum breaker, connector and wall flange. Comprises flush valve, straight flush pipe and flush pipe connector with chromed cover.	No.	2		
		.07 Top entry flush pipe and flush pipe connector for standard flush master	No.	2		
		.08 Compression pan connector for standard flush master	No.	2		
		.09 100 mm ø PVC pan connector	No.	2		
		.10 15 mm ø CP ball-o-stop valve with CP flexi tail pipe to WC cistern	No.	2		
		.11 Heavy duty white buckalite type toilet seat and cover with CP hinge and spindle	No.	9		
		.12 Vitreous china WC cistern -white Vaal 9 litres, with side flush lever for disabled persons facilities -code 710631	No.	3		
		Carried forward				

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
PAA.05	**302.04**	.02 Wash hand basins (WHB):				
		.01 Vitreous china 520 x 415mm rounded wall mounted wash hand basin - white	No.	5		
		.02 Flexi rubber P-trap	No.	2		
		.03 40 mm dia rubber P-trap	No.	1		
		.04 CP Bottle trap with 75mm deep re-seal and adjustable telescopic pipe.	No.	3		
		.05 15 mm ø CP pillar taps SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	2		
		.06 15 mm ø CP pillar taps Square type, SANS 226 Type 2 (BS 5412), JASWIC Listed	No.	1		
		.07 15 mm ø CP pillar taps with raised nose and elbow action, 1/4 turn ceramic disc head part and indicator SANS 226 Type 2 (BS 5412), JASWIC Listed	No.	1		
		.08 15 mm ø CP basin mixer - one hole, with cast swivel outlet, plug, stay, basin waste, mounting kit and angle valves SANS 226 Type 2 (BS 5412), JASWIC Listed	No.	1		
		.09 15 mm ø flexi pipe tailpipe connections to pillar taps including 15mm CP ball-o-stop valve	No.	1		
		.10 Plug and chain for WHB	No.	4		
PAA.05		.03 Sinks and wash troughs:				
		.01 CP wall-mounted sink mixer 15 mm ø - SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	2		
		.02 20mm CP wall-mounted hose bip tap - SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	3		
		.03 20mm RB wall-mounted hose bip tap - SANS 226 Type 1 (BS 1010), JASWIC Listed	No.	1		
		.04 20mm CP extension pieces	No.	3		
		.05 Flexi rubber P-trap	No.	2		
		.06 15 mm BSP male Brass drinking fountain pillarcok with adjustable nozzle flow control, hygienic protective plate	No.	2		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
PAA.05	**302.04**	.04 Showers:				
		.01 15mm CP shower rose 50mm ø with ball joint connector	No.	6		
		.02 15 mm ø under-tile stop-cocks - SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	1		
		.03 CP shower grating	No.	2		
		.04 15mm CP shower arm with fascia plate and male iron connection	No.	1		
		.05 Enamel Shower Pan	No.	3		
		.05 Baths:				
		.01 Rubber flexi bath-trap	No.	1		
		.02 22mm dia. 75mm long CP extension piece with sliding wall flange	No.	2		
		.03 20 mm ø CP pillar taps SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	1		
		.04 20 mm ø CP wall mounted taps SANS 226 Type 1 (BS 5412), JASWIC Listed	No.	1		
		.05 3/4" (19 mm) bath/shower diverter mixer, CP, wall type with concealed connections adjustable from 138mm to 218mm. SABS226 Type 1 (BS5412), JASWIC listed.	No.	1		
		.06 3/4" (19 mm) Hand shower attachment, CP, including 1200mm flexible hose and CP hand shower fitting	No.	1		
		.07 Enamelled cast-iron bath tub	No.	3		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
PAA.05	**302.04**	.06 Urinal:				
		.01 Grade 18/10 Stainless Steel wall mounted Barron Bowl back entry urinal 305mm wide x 420mm high x 245mm dia	No.	2		
		.02 3/4" (19 mm) junior urinal flush master valve, CP, exposed type with integral ball-o-stop valve and wall plate	No.	1		
		.03 Bottle trap with 75mm deep re-seal and adjustable telescopic pipe	No.	3		
		.04 CP urinal spreader and tail piece	No.	2		
		.07 External:				
		.01 20mm hose bip tap, rough brass, with BSP hose union - SANS 226 Type 2 (BS 1010), JASWIC Listed	No.	1		
PAA.06	**302.05**	**Supply and installation of above ground sanitary drainage piping installation:**				
		.01 uPVC soil and waste pipes:				
		.01 50 mm ø pipe fixed to walls and soffits	m	15		
		.02 110 mm ø pipe soil pipe fixed to wall and soffits	m	15		
		.02 uPVC soil and waste pipe fittings:				
		.01 50 mm dia. plain bend 87.5°	No.	3		
		.02 50 mm dia. access bend 87.5°	No.	3		
		.03 50mm dia. plain bend 135°	No.	3		
		.04 50mm dia. access bend 135°	No.	3		
		.05 50mm junction plain 87.5°	No.	3		
		.06 50mm junction access heel 87.5°	No.	3		
		.07 110mm dia. plain bend 135°	No.	3		
		.08 110mm dia. access bend 135°	No.	3		
		.09 110mm dia. access bend 95°	No.	3		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
PAA.06	**302.05**	.02 .10 110mm dia. plain bend 95°	No.	3		
		.11 110mm vent horn bend access heel 95°	No.	3		
		.12 110mm junction single access heel 95°	No.	3		
PAA.07	**302.06**	**Supply and installation of underground sanitary drainage piping installation:**				
		.01 Pipe trench excavations, bedding and backfilling:				
(LI)		.01 Excavate in all materials for pipe trenches to depth of 1100 mm x 600 mm wide	m³	4		
(LI)		.02 Supply and installation of pipe bedding for flexible pipes of compacted selected granular material as well as compacted selected fill material by importation from commercial sources	m³	2		
(LI)		.03 Backfilling and compacting to 93% modified AASHTO density with selected material	m³	3		
		.04 Supply and installation of pipe bedding 400mm thick river sand	m³	2		
		.02 uPVC Solid wall sewer pipes Class 34 - 300 kPa to SANS 791 specifications:				
		.01 110 mm dia.	m	20		
		.02 160 mm dia.	m	15		
		.03 uPVC soil and waste pipe fittings:				
		.01 110 mm ø plain bend 87,5°	No.	4		
		.02 110 mm ø plain bend 135°	No.	4		
		.03 110 mm ø square double junction	No.	4		
		.04 110 mm ø 135° junction	No.	4		
		.05 110 mm ø 90° junction	No.	4		
		.06 110 mm 0 45° access junction	No.	4		
PAA.07		.04 Cleaning eyes:				
		.01 100 mm ø inline cleaning eye, constructed complete with square inspection eye cast iron cover and frame Type 14A (SANS 558) daylight opening size 295 x 295mm and 500 x 500 x 75mm thick concrete encasement	No.	2		
Carried forward						

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PAA.08	302.07	**Supply and installation of domestic water piping installation:**				
		.01 Copper piping Class 1 SANS 460 with capillary soldered type joints for cold-water piping installed in voids inclusive of bracketing:				
		.01 22 mm ø including fittings	m	25		
		.02 15 mm ø including fittings	m	25		
		.02 Copper piping Class 1 SANS 460 with capillary soldered type joints for hot-water piping installed in voids including bracketing, lagging and cladding:				
		.01 22 mm ø including fittings	m	25		
		.02 15 mm ø including fittings	m	25		
		.03 Copper piping Class 1 SANS 460 with capillary soldered type joints for hot and cold-water piping chased in walls including wrapping of pipes with builders paper, chasing and reinstatement of chased surfaces:				
		.01 28 mm ø including fittings	m	17		
		.02 22 mm ø including fittings	m	17		
		.03 15 mm ø including fittings	m	17		
		.04 Copper capillary soldered type fittings for:				
		.01 22mm dia x 22mm dia	No.	12		
		.02 15mm dia x 15mm dia	No.	8		
		.05 22mm dia shut-off ball valve	No.	6		
PAA.08		.06 Supply and installation of Class 6 pressure HDPE piping, including fittings, jointing and testing:				
		.01 20 mm ø HDPE pipe, including fittings	m	12		
		.02 32 mm ø HDP pipe, including fittings	m	12		
		.07 Replace 20 mm ø shut-off ball-o-stop valve	No.	3		
		.08 Replace additional geyser accessories:				
		.01 20 mm ø pressure-reducing valve, including two gate vales and non-return valve set at 400 kPa	No.	1		
		Carried forward				

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	302.07	.09 Water meter stations installed including strainer and one ball-o-stop shut-off valve with Copper piping Class 0 SANS 460 pipe connection 600mm above ground including 500 x 500 concrete 20MPa base:				
		.01 20 mm ø socketed brass water meter	No.	1		
		.02 32 mm ø water meter	No.	1		
		.10 Pipe Insulation Agrinet Superlon 15mm Lagging 1.8m x 10mm with Adhessive Slit (High and Low Temperature)	m	50		
		.11 Pipe Insulation Agrinet Superlon 22mm Lagging 1.8m x 10mm with Adhessive Slit (High and Low Temperature)	m	50		
PAA.09	**302.08**	**Supply and installation of domestic geyser installations including shut-off valves, strainers, non-return valves, expansion relief valve, safety valve, drain piping and electrical connection:**				
		.01 SANS 151 dual 100 litre, 3 kW 600 kPa approved geyser	No.	3		
		.02 SANS 151 dual 150 litre, 3 kW 600 kPa approved geyser	No.	3		
PAA.10		.03 Supply and installation of solar powered geyser installation, can be used in frost-free locations, inclusive of solar storage tank/s, solar collector panel/s, all brackets and fittings, shut off valves, strainers, drip tray, non return valves, expansion relief valve, safety valve, drain DiDino and electrical connection .01 Close coupled unit pitched roof installation - 150 litre, 2kW, 400kPa approved geyser	No.	1		
PAA.11	**302.09**	**Supply and installation of domestic galvanised geyser drip tray**	No.	1		
PAA.14	**302.10**	**Servicing, cleaning and repair of sanitary ware:**				
		.01 Water closets (WC):				
		.01 Repair WC cistern flushing mechanism with repair kit	No.	15		
		.02 Replace cistern type flushing mechanism with new	No.	8		
PAA.15	**302.11**	**Servicing, overhauling and cleaning of brassware:**				
		.01 Replace washers on brassware with washer kits:				
		.01 15 mm ø CP pillar taps	No.	2		
		.02 20 mm ø CP pillar taps	No.	2		
	Carried forward					

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PAA.15	**302.13**	.03 15 mm ø CP wall-mounted taps	No.	2		
		.04 20 mm ø CP wall-mounted taps	No.	2		
		.05 20 mm ø brass hose bib taps	No.	2		
		.06 15 mm CP sink mixers	No.	2		
		.07 22mm exposed junior flush valve	No.	3		
		.08 22mm under wall stop taps	No.	2		
		.09 22mm basin mixer	No.	4		
		.10 25 mm Junior flush master, including replacing flush master kits	No.	3		
PAA.15	**302.14**	**Supply and Installation of Drainage Piping installation**				
		.01 PVC soil and waste pipes:				
		.01 40 mm dia pipe fixed to walls and soffits	m	11		
		.02 50 mm dia pipe fixed to walls and soffits	m	8		
		.03 110 mm dia pipe fixed to walls and soffits	m	9		
PAA.15		.02 PVC soil and waste pipe fittings:				
		.01 40 mm dia elbows	No.	4		
		.02 50 mm dia elbows	No.	4		
		.03 110 mm dia elbows	No.	4		
		.04 40 mm dia junction	No.	5		
		.05 50 mm dia junction	No.	12		
		.06 110 mm dia junction	No.	1		
		.03 Pipe trench excavations, bedding and backfilling:				
		.01 Excavate in all materials for pipe trenches to	m^3	6		
		.02 Supply and installation of pipe bedding 50 mm thick river sand	m^3	2		
		.03 Backfilling and compacting to 93% modified AASHTO density with selected material	m^3	6		
		.04 Supply and installation of piping including jointing and testing:				
		.01 110mm PVC	m	15		
		Carried forward				

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
PAA.15	**302.14**	.05 PVC couplings:				
		.01 100 mm dia 45° bend with IE	No.	15		
		.02 50 mm dia 45° junction	No.	6		
		.03 100 mm dia 45° junction IE	No.	14		
		.06 PVC soil and waste pipe fittings				
		.01 110 mm dia elbows	No.	8		
		.02 110 mm dia junction	No.	5		
		.07 Cleaning eyes:				
		.01 100 mm dia inline cleaning eye constructed complete with ABC and lamp hole cover and frame and concrete encasement	No.	6		
PAA.16	**302.15**	**Servicing, cleaning and repair of domestic water and drainage pipe installations:**				
		.01 Servicing and repair of drainage installations:				
		.01 Unblock and clean pipe work including fittings, 50 mm ø pipe	m	45		
		.02 Unblock and clean pipe work including fittings 100 mm ø pipe	m	35		
		.03 Replace damaged gully with pre-cast concrete gully	No.	2		
		.04 Replace broken or damaged gully P-traps	No.	2		
		.05 Replace missing or broken round cast iron gully gratings 100mm - 300mm diameter	No.	2		
		.06 Replace missing or broken square cast iron gully gratings 250mm x 250mm wide	No.	1		
		.07 Replace missing or broken vent valve for 50mm air vent	No.	2		
		.08 Replace missing or broken vent valve for 110mm air vent	No.	1		
		.09 Replace missing or broken cast iron inspection eye cover and frame only SANS 558 Type 14A in 500 x 500 mm x 75 mm thick concrete encasement	No.	1		
		.10 Replace missing or broken round cast iron gully grating 100mm-300mm diameter	No.	1		
	Carried forward					

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES — CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PAA.16	302.16	**Servicing, cleaning and repair of sanitary ware:**				
		.01 Water closets:				
		.01 Destaining of WC pan	No.	3		
		.02 Chip repair of WC pan	No.	1		
		.03 Repair WC cistern flushing mechanism with repair kit	No.	6		
		.04 Replace broken or missing seat and covers	No.	4		
		.02 Urinals:				
		.01 Destaining of urinal bowl	No.	2		
		.02 Chip repair of urinal bowl	No.	1		
		.03 Wash hand basins:				
		.01 Destaining of basin	No.	2		
		.02 Chip repair of basin	No.	1		
		.03 Remove and replace silicone sealant for wall mounted basins	No.	2		
		.04 Sinks:				
		.01 Destaining of sinks	No.	2		
PAA.16	302.17	**Servicing, cleaning and repair of domestic water and drainage pipe installations:**				
		.01 Water pipe installation:				
		.01 Pressure test existing water installation	item	1		
		.02 Taking of water pipe samples including cutting out, repairing existing piping, and analysing of pipe sample for 15 mm dia to 32 mm dia piping	No.	2		
		.03 Taking of water pipe samples including cutting out, repairing existing piping, and analysing of pipe sample for 40 mm dia to 50 mm dia piping	No.	1		
		.04 Taking of water pipe samples including cutting out, repairing existing piping, and analysing of pipe sample for 80 mm dia to 100 mm dia piping	No.	1		
		.05 Preparation and painting of pipework for 15 mm dia to 32 mm dia piping	m	8		
		Carried forward				

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PAA.16	302.17	.06 Preparation and painting of pipework for 40 mm dia to 50 mm dia piping	m	15		
		.07 Preparation and painting of pipework for 80 mm dia to 100 mm dia piping	m	35		
		.08 Preparation and painting of pipework for 15mm dia to 32mm dia piping	m	6		
		.09 Preparation and painting of pipework for 40mm dia to 50mm dia piping	m	2		
		.10 Unblock and clean pipework including fittings, 150 mm dia pipe	m	25		
		.11 Unblock and clean gullies	No.	1		
		.12 Repair damaged gullies	No.	2		
		.13 Replace missing or broken gully gratings	No.	5		
		.14 Replace missing or broken cleaning eye cover, ABC cast-iron cleaning eye	No.	3		
		.15 Replace missing vent pipes, 100 mm dia cast-iron pipe and fittings	m	4		
PAA.16		.03 Servicing and repair of brassware, including gaskets, gland packing's , seals, and handles:				
		.01 Brass gate valves	No.	6		
		.02 20 mm dia stop-cocks	No.	4		
PAA.17	302.18	**Servicing, cleaning and repair of domestic geysers, including replacement of element, thermostat, safety valve and vacuum breakers and rectifying of pipe work where necessary:**				
		.01 100 litre electric geyser	No.	3		
		.02 150 litre electric geyser	No.	5		
PAA.18	302.19	**Servicing, cleaning and repair of industrial geysers**	No.	1		
PAA.19	302.20	**Servicing and repair of fire water piped reticulation network**	m	8		
SABS 1200 DA 8.3	303.00	**EARTHWORKS (SMALL WORKS)**				
	303.01	**Scheduled Items**				
8.3.2		.01 Excavate trenches in all materials and use for backfill or embankment or dispose.	m^3	2		
		Carried forward				

SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
SABS 1200 DA	**303.01**	.02 Extra over item 01 above for				
8.3		0.1 Intermediate excavation	m^3	2		
8.3.2		0.2 Hard rock excavation	m^3	1		
		.03 Importing and placing of approved 65-125mm rock fill from commercial sources or from borrow pits to 95% MOD AASHTO	m^3	2		
		.04 PVC-U Slotted subsoil drainage pipes complete with integral sockets				
		.01 110 mm dia	m^3	3		
		.05 Megaflex DHD 60 industrial garden hose with 10 years design life, 4000kPa max pressure, blue stripe, according to SABS 645-1970 type 2, per 30 metre roll	No.	1		
	302.00	**MISCELLANEOUS ITMES**				
PAA.07	**302.01**	**Scheduled Items**				
		.01 20 mm pressure-reducing valve, including two gate vales and non-return valve set at 400 kPa	No.	1		
		.02 Brass vacuum breaker	No.	1		
		.03 Safety valve	No.	1		
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A3: INSTALLATION C2.R: PLUMBING, DRAINAGE AND WET SERVICES						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A4: **INSTALLATION C3.R: FENCING, CLEANING OF BUILDINGS, SITE KEEPING AND PEST CONTROL**

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	400.00	**FENCING AND GATES**				
CC.08.01.0	400.01	**Clearing the fence route**				
		.01 Beginning of contract Clearing the fence 2.5m wide strip and keep area clean on both sides	m	5 000		
CC.02	401.00	**RESIDENTIAL FENCE - 1,2 m DIAMOND MESH, TUBULAR STEEL POSTS AND STANDARDS**				
	401.01	**Supply and erection of new fencing material to replace old material:**				
		.01 Diamond mesh:				
		.01 1,2 m diamond mesh fence	m	50		
		.02 110 mm tubular post with concrete footing for 1.2 m high fence	No.	4		
		.03 65 mm dia. Stay for 1,2 m post	No.	5		
		.04 Y-standards for 1,2 m high fence	No.	15		
		.05 4 mm thick fully galvanized straining wire	m	200		
		.06 Gates:				
		.01 In 1,2 m high fences:				
		.01 single and double gates less than 1,5 m wide	No.	1		
		.02 single and double gates between 1,5 m and 5,0 m wide	No.	1		

SCHEDULE No. A4: INSTALLATION C3.R: FENCING, CLEANING OF BUILDINGS, SITE KEEPING AND PEST CONTROL

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
CC.02	402.00	**3.0 m HIGH SECURITY FENCE (Galfan Class A coated to SANS 10224-2: 2003 min 240g/m²)**				
	402.01	**Supply and erection of new fencing material to replace old material**				
		.01 Posts:				
		.01 70 x 70 x 6mm Angle Iron Posts with 450mm security extension, Predrilled holes for fixing panels and Hot dipped Galvanised in accordance with ISO 1461 (Min. 70 microns)	No.	3		
		.02 70 x 70 x 6mm Angle Iron Corner Posts with 450mm security extension, Predrilled holes for fixing panels and Hot dipped Galvanised in accordance with ISO 1461 (Min. 70 microns)	No.	2		
		.02 Covering plate				
		.01 70 x 6mm Flatiron section, Predrilled countersunk holes for fixing mesh to posts. Hot dipped Galvanised in accordance with ISO 1461 (Min. 70 microns)	No.	3		
		.03 Top rails				
		.01 40mm x 40mm x 3mm Angled Iron, predrilled holes for fixing rails to posts and for fixing top section of mesh to rail. Top rail to be fitted with32mm high x 2mm thick serrated comb. Razor combs to be fillet welded 10mm at every 100mm centres Hot dipped Galvanised in accordance with ISO 1461 Minimum coating of top rail: 55 microns Minimum coating of serrated comb: 55 microns	No.	3		
		.04 Bottom rails				
		.01 40mm x 40mm x 3mm Angled Iron , predrilled holes for fixing rails to posts and for fixing bottom section of mesh to rail. Hot dipped Galvanised in accordance with ISO 1461. Minimum coating of bottom rail: 55 microns	No.	3		
		.05 Panels . 358 Double Line Wire Single Skin™ Mesh				
		.01 Heavy high security welded panel fence, with rectangular mesh inner Apertures: 72.2mm x 8 .7mm Wire diameter: 4mm Vertical wires are welded on both sides of the horizontal wires Width of panel: 2515mm Height of panel 1 969m Tensile strength: 600 - 900N/mm² Weld strength: 60 - 80% Weight: 9 . 34kg/m² Coating: Galfan Class A Coated in accordance with SANS 10244-2:2003	No.	3		
Carried forward						

SCHEDULE No. A4: INSTALLATION C3.R: FENCING, CLEANING OF BUILDINGS, SITE KEEPING AND PEST CONTROL

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
		.06 Overhanging Extensions				
		.01 450mm overhang extension with 3 strands of Motto 2 .5mm double stranded Aluzinc Barbed Wire and 450mm diameter galvanised Barbed Tape Concertina razor Coil	m	10		
		.07 Concrete footing	m^3	3		
		.01 Supply and install a 20Mpa/19mm 8.4.3 stone concrete footing: Size 400mm wide x 200mm deep complete with formwork				
		.08 Supply and install 6m wide and 2m high sliding gate manufactured from high security welded panel mesh complete with rail. Coating: Galfan Class A Coated in accordance with SANS 10244-2:2003	No.	2		
CC.08.02	403.00	**Supply and erection of new fencing material to replace old material**				
	403.01	**Material to replace old material:**				
		.01 Smooth wire	m	50		
		.02 Diamond mesh 1.8m high	m^2	100		
		.03 Welded Mesh	m^2	20		
		.04 Timber Poles	No.	2		
		.05 Barbed tape "flat wrap", 700mm diam	m	50		
		.06 Steel rail way beam for 3m high fence	No.	2		
		.07 Steel stays for 3m high fence	No.	2		
		.08 Tubular posts for 3m high fence	No.	6		
		.09 Steel stays for 3m high fence	No.	15		
		.10 Tubular posts for 1,2m high fence	No.	5		
		.11 Steel stays for 1.2m high fence	No.	12		
		.12 Heavy Duty Galvanised wheels with ball bearings and axle with lubrication point	No.	4		
CC.08.02		.13 Gates				
		.01 In fences less than 1,5m high				
		.01 single and double gates less than 1,5m wide	No.	1		
		.02 single and double gates between 1,5m and 5,0m wide	No.	1		
		Carried forward				

SCHEDULE No. A4: INSTALLATION C3.R: FENCING, CLEANING OF BUILDINGS, SITE KEEPING AND PEST CONTROL

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
		.02 In fences between 1,5m and 2,4m high				
		.01 single and double gates less than 1,5m wide	No.	1		
		.02 single and double gates between 1,5m and 5,0m wide	No.	1		
CC.08.04	**403.02**	**Redress, treat and painting of fences**				
		.01 Redress, treat and painting of fences more than 1,5m high	m	100		
	404.00	**SOLID WASTE MANAGEMENT**				
	404.01	**Cleaning of site as detailed in table CC 07/01**	m^2	8 500		
CG.06.03	**404.02**	**Waste collection- Bins**				
		.01 Supply 80l heavy duty PVC dustbins to houses and offices	No.	2		
		.02 105 litre swing steel bin size 475mm Ø x 800mm high	No.	1		
		.03 240 litre sqaureblack bins including wheels	No.	1		
CG.06.01	**404.03**	**Disposal of litter**	m^3	110		
CG.06.02	**404.04**	**Waste collection skip**	No.	3		
CJ.05	**405.00**	**SUPPLY OF EQUIPMENT FOR ABLUTIONS AS DESCRIBED IN ITEM CJ 03 OF THE TECHNICAL SPECIFICATION**				
CJ.05.01		.01 Stainless steel hand dryer unit with blower output of 450 watt @ 20 000 rpm similar or equal to accelerator	No.	1		
CJ.05.02		.02 Auto digital aerosol dispenser with stainless steel cover	No.	2		
CJ.05.03		.03 Stainless steel toilet paper dispensing units, capable of holding two toilet paper rolls per unit	No.	2		
CJ.05.04		.04 Stainless steel she bins	No.	2		
CJ.05.05		.05 Stainless steel hand soap dispenser	No.	2		
CJ.05.06		.06 Stainless steel urinal sanitizer	No.	2		
	406.00	**OTHER EQUIPMENT**				
		.01 Eagle eye wind driven bird control unit	No.	1		
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A4: INSTALLATION C3.R: FENCING, CLEANING, SITE KEEPING AND PEST CONTROL						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/016AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A5: **INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS**

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	500.00	**BOREHOLE:**				
DA	500.01	**Testing borehole capacity: at Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry**				
DA.01		.01 Pump testing of borehole	No.	3		
DA.01.01		.02 Extra over for item 500.01.01				
		.01 Permanent removal of existing pumping equipment	No.	3		
		.02 Recovery of lost equipment	No.	3		
		.03 Installation of temporary pumps	No.	3		
		.04 Ground water sampling	No.	3		
		.05 Compilation of borehole report	No.	3		
		.06 Standing time - Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	Rate Only
		.07 Removal of existing pumping equipment prior to testing	No.	3		
		.08 Reinstallation of existing pumping equipment	No.	3		
Carried forward						

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
DA.03	**500.02**	**Repair/replacement of equipment at Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry**				
DA 03.01		.01 Detailed inspection and testing of components				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 03.02		.02 Commissioning of submersible pumping equipment:				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 03.03		.03 Reconditioning of pumping equipment:				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 03.04		.04 Repair of pumping equipment				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 03.05		.05 Decommissioning and removal of submersible pumping equipment:				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 03.06		.06 Servicing of submersible borehole pumps				
		.01 Borehole submersible pump and pipe work	No.	3		
DA 04	**500.03**	**Supply and delivery of submersible centrifugal borehole pumps at Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry:**				
DA 04.01		.01 Borehole submersible pump with duty points:				
		.01 Borehole submersible pump capable of pumping 5ℓ/second and maximum 140m total head	No.	3		
DA 04.02		.02 Installation of submersible, borehole pumps:				
		.01 Borehole submersible pump capable of pumping 5ℓ/second and maximum 140m total head	No.	3		
DA 04.03		.03 Supply, deliver and install rising pipe (75 mm diameter and pressure class 16)	No.	3		
DA 04.04		.04 Remove existing equipment from borehole and store on site as directed by the Engineer	No.	3		
		Carried forward				

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
DA.06	**500.04**	**Borehole structures at Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry**				
DA 06.01		.01 Clear area around borehole	m^2	30		
DA 06.02		.02 Removal of concrete base slab	m^3	2		
DA 06.03		.03 Laying of concrete base slabs	m^3	2		
DA 06.04		.04 Brickwork	m^2	5		
DA 06.05		.05 Repair of existing steel cover	No.	1		
DA 06.06		.06 Supply, deliver and install new borehole enclosure complete with roof and floor	No.	1		
DA 06.07		.07 Painting of exposed pipe work	m	50		
DB.01	**500.05**	**Drilling of borehole at Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry (only per engineers instruction)**	m	550		
DB.02	**500.06**	**Borehole casing**				
DB 02.01		.01 Supply and install steel casing 165mm dia.	m	50		
DB 02.02		.02 Supply and install casing shoe	Item	3		
DB 02.03		.03 Supply and install uPVC casing	m	50		
DB 02.04		.04 Supply and install perforated casing 165mm dia.	m	50		
DB.03		.05 Recovery of steel casing	m	10		
	500.07	**Corrective maintenance to existing boreholes:**				
DC.02		.01 Rehabilitation of existing boreholes	m	50		
DC 03.01		.02 Supply and install steel casing 165mm dia.	No.	3		
DC 03.02		.03 Supply and install casing shoe	No.	3		
DC 03.03		.04 Supply and install uPVC casing	m	25		
DC 03.04		.05 Supply and install perforated casing 165mm dia.	No.	15		
Carried forward						

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	501.00	**BOREHOLE PIPE WORK AT BOESMANSNEK, RAMATSELISO AND ONGELUKSNEK LAND PORTS OF ENTRY**				
SANS 1200 L 8.2.5	501.01	**Supply and install pipes, valves, fittings and specials:**				
		.01 25mm ball valve with plastic coated plated steel lever and 2" (50 mm) female connections	No.	3		
		.02 25mm double orifice air valve / pump protector with bias mechanism	No.	3		
		.03 20mm ball valve with plastic coated plated steel lever and 2" (50 mm) female connections	No.	3		
		.04 20mm pressure gauge 0-1000 kPa with large scale and stainless steel housing	No.	3		
		.05 80mm dia. flanged bulk water meter, flow rates between 0.15 m^3/h and 100 m^3/h, 6 figure display and epoxy powder coated body and cover for sizes 40mm to 125mm, pressure of 16 bar	No.	3		
		.06 80mm dia. flanged resilient seal gate valve with wheel handle	No.	3		
		.07 80mm dia. standard cast iron flange adaptor from 80mm GMS to 75mm HDPE	No.	3		
SANS 1200 L 8.2.5	501.02	**Supply and install pipes, valves, fittings and specials as per borehole pipe and fittings schedule:**				
		.01 Pipe fitting 1: Borehole base plate	No.	3		
		.02 Pipe fitting 2: Flanged T with couplings	No.	3		
		.03 Pipe fitting 3: Flanged 1m section	No.	3		
		.04 Pipe fitting 4: Flanged elbow	No.	3		
SANS 1200 L 8.2.1	501.03	**Supply, lay and bed pipes complete with couplings, including testing:**				
		.01 32mm dia. HDPE PE100 Class 10 pipe, jointed with Plasson high compression fittings	m	12		
		.02 75mm dia. HDPE PE100 Class 10 pipe, jointed with Plasson high compression fittings	m	12		
		Carried forward				

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
SANS 1200DB	**502.00**	**EXCAVATIONS**				
8.3.2(a)	**502.01**	**Excavate in all materials for trenches, backfill, compact, and dispose of surplus/unsuitable material, for the following pipe diameters for total trench depths:**				
		.01 Not exceeding 1m deep x 600mm wide	m	12		
8.3.2(b)		.02 Extra-over item 502.01.01 for:				
		.01 Intermediate excavation	m^3	4		
SANS 1200LB	**502.02**	**Provision of bedding from trench excavations:**				
8.2.1		.01 300mm x 600mm bedding of selected granular material	m^3	5		
SANS 1200LB	**502.03**	**Supply only of bedding from borrow pits:**				
8.2.2.2		.01 300mm x 600mm bedding of selected granular material	m^3	5		
	503.00	**DOSING EQUIPMENT AT BOESMANSNEK, RAMATSELISO AND ONGELUKSNEK LAND PORTS OF ENTRY**				
DF 06.01		.01 Decommissioning and removal of dosing equipment	No.	3		
DF 06.02		.02 Service dosing equipment	No.	3		
DF 06.03		.03 Supply, Install, testing and commissioning of dosing equipment (similar approved to match existing)	No.	3		
DH 09.06		.04 Supply of chemicals	ℓ	80		
		.05 Supply and install a suitable dosing pump cover. (similar approved to match existing)	No.	3		
DL 08.02	**503.01**	**Installation, testing and commissioning of chlorination systems:**				
		.01 Complete system with dosing pump, tank and all fittings and accessories	Sum	1		
		.02 Signal cable with plug for connecting into pump from water meter and electrical wiring with reed switch pulse sensor	Sum	1		
	504.00	**BULK WATER SUPPLY**				
EK 07.01	**504.01**	**Supply and delivery of water meters, gate valves, air release valves, non-return valves and sluice gates:**				
		.01 50mm double orifice air release valve	No.	1		
		.02 50mm non-return valve	No.	1		
		.03 50mm flanged resilient seal gate valve	No.	1		
		.04 110mm water meter	No.	1		
		Carried forward				

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
EK 07.02	**504.02**	**Installation, testing and commissioning of water meters, gate valves, air-release valves, non-return valves and sluice gates:**				
		.01 50mm double orifice air release valve	No.	1		
		.02 50mm non-return valve	No.	1		
		.03 80mm non-return valve	No.	1		
		.04 110mm hydraulic float control valve	No.	1		
		.05 110mm water meter	No.	1		
		.06 50mm gate valve	No.	1		
		.07 80mm gate valve	No.	1		
		.08 100mm gate valve	No.	1		
		.09 150mm gate valve	No.	1		
EK 07.03	**504.03**	**Service and reconditioning of water meters, gate valves, air-release valves, non-return valves and sluice gates:**				
		.01 50mm double orifice air release valve	No.	2		
		.02 50mm non-return valve	No.	2		
		.03 80mm non-return valve	No.	1		
		.04 110mm hydraulic float control valve	No.	1		
		.05 110mm water meter	No.	1		
		.06 50mm gate valve	No.	2		
		.07 80mm gate valve	No.	1		
		.08 100mm gate valve	No.	1		
	505.00	**WATER DISTRIBUTION NETWORKS**				
CE.01	**505.01**	**Water distribution pipelines:**				
CE.01.01		.01 Repair of existing pipelines:				
		.01 Distribution pipes	m	10		
		.02 House connections	m	12		
		.03 Irrigation pipes	m	10		
		Carried forward				

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CE.01.02	505.01	.02 Provision of materials for repair of existing:				
		.01 uPVC class 12 pressure pipes to SANS 966 with integral "LYNG" mechanical rubber ring joints:				
		.01 75 mm dia.	m	50		
		.02 110 mm dia.	m	50		
		.03 160 mm dia.	m	20		
		.02 Galvanised mild steel (GMS) medium duty quality pipes to SANS 62 with flanged couplings. Normalised pipes:				
		.01 20 mm dia.	m	50		
		.02 50 mm dia.	m	50		
		.03 80 mm dia.	m	20		
		.03 HDPE - PE100 Class 10 pressure pipes, ISO 4427:				
		.01 32 mm dia.	m	50		
		.02 50 mm dia.	m	20		
		.04 Saddles with standard drilling and 25 mm BSP tapping for connections to supply lines:				
		.01 110 mm dia.	No.	4		
		.02 160 mm dia.	No.	1		
		.05 Standard bends of all degrees and all types completely fitted in pipes of all types with inside diameters of:				
		.01 between 39 mm and 55 mm	No.	1		
		.02 between 55 mm and 76 mm	No.	1		
		.03 between 76 mm and 99 mm	No.	1		
		.04 between 99 mm and 130 mm	No.	1		
		.05 between 130 mm and 180 mm	No.	1		
CE.01.02		.06 Standard equal tees, reducing tees (largest connection pipe determine payment classification) and cross pieces of all types completely fitted in pipes of all types with inside diameters of:				
		.01 between 39 mm and 55 mm	No.	1		
		.02 between 55 mm and 76 mm	No.	1		
		.03 between 76 mm and 99 mm	No.	1		
		.04 between 99 mm and 130 mm	No.	1		
		Carried forward				

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought forward					
	505.01	.07 Standard reducers (largest connection pipe determine payment classification) of all types completely fitted in pipes of all types with inside diameters of:				
		.01 between 55 mm and 76 mm	No.	1		
		.02 between 76 mm and 99 mm	No.	1		
		.03 between 99 mm and 130 mm	No.	1		
		.08 Standard couplings, repair couplings, flange adapters and other adapters (to connect different types of pipes and fittings) of all types completely fitted in pipes of all types with inside diameters of:				
		.01 between 76 mm and 99 mm	No.	1		
		.02 between 99 mm and 130 mm	No.	1		
		.03 between 130 mm and 180 mm	No.	1		
CE.01.03		.03 Replacement of manhole covers, grid inlets and the like:				
		.01 SANS 558 Type 8B - Medium duty class size 600 x 600mm square manhole cover and frame, double sealed type	No.	1		
CE.01.03		.04 .01 SANS 558 Type 9A - Light duty class size 600 x 600mm square manhole cover and frame, single sealed type	No.	1		
CE.01.04		.05 Repair of corrosion protection for pipes and fittings with diameters of:				
		.01 Up to 100 mm dia	m	40		
		.02 101 to 200 mm dia	m	20		
CE.01.05		.06 New pipelines: preparation and finishing				
		.01 Up to 100 mm dia	m	20		
		.02 101 to 200 mm dia	m	10		
CE.03.01	**505.02**	**Cleaning of pipeline**				
		.01 Cleaning of deposits in pipeline by mechanical means for pipes of diameters of:				
		.01 Up to 100 mm dia	m	20		
CE.03.02		.02 Scouring of pipeline to remove trapped debris for pipes of diameters of:				
		.01 Up to 100 mm dia	m	20		
		.02 101 to 200 mm dia	m	20		
	Carried forward					

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
CE.04	**505.03**	**Repair of fittings**				
CE.04.01		.01 Servicing of fittings	No.	25		
CE.04.02		.02 Replace pipe fittings	No.	15		
CE.04.03		.03 Repair of house connections	No.	2		
CE.05	**505.04**	**Repair of structures**				
CE.05.01		.01 Demolition and removal of damaged existing structures				
		.01 Plain Concrete	m^3	2		
		.02 Reinforced Concrete	m^3	2		
		.03 Brickwork	m^2	3		
		.04 Precast concrete manhole sections	No	1		
CE.05.02		.02 Cleaning of existing manholes, chambers and other structures:	m^3	3		
CE.05.03		.03 Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)				
		.01 Excavated material to spoil	m^3-km	3		
		.02 Existing structures demolished	m^3-km	3		
CE.05.04		.04 Repair of structures				
		.01 Brickwork	m^2	12		
		.02 Concrete	m^3	3		
		.03 Precast concrete manhole sections	No.	1		
CE.05.05		.05 Marker Posts	No.	3		
SANS 1200 LF 8.2.4	**505.05**	**Supply and install meters complete with couplings (as described in par CE 04.02.04 (m)(ii):**				
		.01 50 mm dia water meter, with integrated strainer	No.	1		
	505.06	**Supply and install valve box cover:**				
		.01 50 mm dia water meter	No.	1		
Carried forward						

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	506.00	**OPERATING AND MAINTENANCE MANUALS:**				
SB.01	**506.01**	**Compile and supply a complete set of operating and maintenance manuals:**				
		.01 Bulk water supply system including boreholes: update existing O & M Manual - approved by engineer	Sum	1		
	507.00	**RECOVERED PLASTIC/STEEL TANKS**				
Cl.03	**507.01**	**Lightning protection for storage tank:**				
		.01 Recovered plastic/steel tanks and stand	Sum	1		
Cl.04	**507.02**	**Sterilization of storage tank:**				
		.01 Recovered plastic/steel tank	No.	2		
Cl.05	**507.03**	**Testing for water tightness of storage tank:**				
		.01 Recovered plastic/steel tank	No.	1		
Cl.07	**507.04**	**Installation of hydraulic operated floater control valve:**				
		.01 50mm angle type	No.	1		
	507.05	**Decommission and remove existing plastic/steel water tanks and steel structure and keep safe on site**	Sum	1		
	507.06	**Move and re-install existing plastic/steel water tanks and steel structure**	Sum	1		
	507.07	**Repair, paint, de-rust, service re-install existing plastic/steel water tanks and steel structure**	Sum	1		
	507.08	**Install new and/or additional water tank on steel structure complete with all relavant pumps, valves and pipe network AT BOESMANSNEK, RAMATSELISO AND ONGELUKSNEK LAND PORTS OF ENTRY**				
		PLEASE Note: All items must include the cost of labour, all consumable and installation materials:				
		.01 Prefabricated Galvanised Pressed Steel Water tanks and Prefabricated Galvanised Steel Structure (Drawings to be issued upon site instruction)	PC Sum			R 2 500 000.00
		.02 Profit and attendance on item .01	%	2 500 000.00	..... %	
	508.00	**PIPES AND FITTINGS**				
SANS 8.2.1	**508.01**	**Supply, lay and bed pipes complete with couplings, including testing:**				
		.01 32mm dia. HDPE pipe Class 10, jointed with Plasson high compression fittings	m	10		
		.02 63mm dia. HDPE pipe Class 10, jointed with Plasson high compression fittings	m	10		
		.03 75mm dia. UPVC pipe Class 12, with mechanical rubber ring	m	10		
		.04 110mm dia. UPVC pipe Class 12, with mechanical rubber ring	m	10		
	Carried forward					

SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEM AND EXTERNAL WATER NETWORKS

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SANS 8.2.2	**508.02**	**Extra over for supplying, laying and bedding of fittings complete with couplings as per pipe and fittings schedule:**				
		.01 32mm dia. polypropylene, high-grade copolymer high compression adaptor for GMS	No.	1		
		.02 32mm dia polypropylene, high-grade copolymer high compression couplings	No.	1		
SANS 1200L		.03 32mm dia polypropylene, high-grade copolymer high compression elbows	No.	1		
8.2.2		.04 64mm dia. polypropylene, high-grade copolymer high compression adaptor for GMS	No.	1		
		.05 64mm dia polypropylene, high-grade copolymer high compression couplings	No.	1		
		.06 64mm dia polypropylene, high-grade copolymer high compression elbows	No.	1		
		.07 63mm x 32mm x 63mm dia polypropylene, high-grade copolymer high compression reducing tee	No.	1		
		.08 75mm dia Class16 CI bends for uPVC pipes of all degrees	No.	1		
		.09 110mm dia Class16 CI bends for uPVC pipes of all degrees	No.	1		
		.10 75mm dia Class 16 uPVC bends of all degrees	No.	1		
		.11 110mm dia Class16 uPVC bends of all degrees	No.	1		
		.12 75mm dia Class 16 UPVC tees of all degrees	No.	1		
		.13 110mm dia Class16 uPVC tees of all degrees	No.	1		
		.14 75mm-63mm dia Class 16 uPVC reducing tees of all degrees	No.	1		
		.15 110mm - 75mm dia Class16 uPVC reducing tees of all degrees	No.	1		
DH 07	**509.00**	**TRAINING OF OPERATORS**				
		.01 Training of operators for the maintained and operations of the Water Treatment Works	No.	3		
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A5: INSTALLATION C4.R: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A6: INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	600.00	**SEPTIC TANKS**				
EG 07.01	600.01	Desludge and general repair of all septic tanks every 6 months	No.	18		
EG 07.02	600.02	Measurement and payment for rehabilitation of french drain system	No.	3		
EG 07.03	600.03	Measurement and payment for allenative methods to augment the septic tank/french drain treatment	No.	3		
EG 07.05	600.04	Alientative methods to augment the septic tank french drain treatment	No.	3		
CF.01	601.00	**SEWER NETWORKS**				
CF.01.01		**Repair of existing pipelines**				
CF.01.02	601.01	**Provision of materials for repair:**				
		.01 Plain ended vitrified clay pipes including "Vitrosleeve" couplings on class B bed:				
		.01 100 mm dia.	m	15		
		.02 150 mm dia.	m	15		
		.02 uPVC class 9 pressure pipes to SABS 966 & 791 with integral "LYNG" mechanical rubber ring joints:				
		.01 75 mm dia	m	45		
		.02 90 mm dia	m	20		
		.03 110 mm dia	m	25		
		.04 160 mm dia	m	30		
Carried forward						

SCHEDULE No. A6: INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CF.01.03	601.02	**Replacement of manhole covers, grid inlets, etc:**				
		.01 SABS 558 Type 2A - covers, grids, etc:				
		.01 Maximum dimension up to and including 300 mm	No.	1		
		.02 Maximum dimension 301 mm to 600 mm	No.	1		
CF.01.03		.02 SABS 558 Type 2A - frames only for covers, grids, etc:				
		.01 Maximum dimension up to and including 300 mm	No.	1		
		.02 Maximum dimension 301 mm to 600 mm	No.	1		
CF.01.04.01	601.03	**Manholes and inspection chambers:**				
		.01 Raising or lowering of existing manholes or inspection chambers of all types by up to 0,5 m	No.	1		
		.02 Raise/lower exceeding 0,5 m up to and including 1 m	No.	1		
CF.01.04.02	601.04	**Breaking into existing sewer and building a new manhole**				
		.01 Pre-cast concrete manhole:				
		.01 Depth exceeding 0,5 m up to and including 1,0 m	No.	1		
		.02 Depth exceeding 1,0 m up to and including 1,5 m	No.	1		
		.03 Depth exceeding 1,5 m up to and including 2,0 m	No.	1		
CF.01.04.03	601.05	**Connecting to existing sewer**	Sum	2		
CF.02	601.06	**Cleaning of sewer network:**				
CF.02.01		.01 Mechanical cleaning of sewer pipes and structures with internal diameters of:				
		.01 Up to 150 mm	m	45		
		Carried forward				

SCHEDULE No. A6: INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CF.02.02	601.06	.02 Chemical cleaning of sewer pipes and structures with internal diameters of:				
		.01 Up to and including 150 mm	m	80		
CF.02.06		.03 Demolition and removal of damaged existing structures:				
		.01 Plain concrete	m^3	3		
		.02 Reinforced concrete	m^3	2		
		.03 Kerbing and channelling	m	15		
		.04 Pipework	m	25		
CF.03	601.07	**Tests and inspections**				
		.01 Pressure testing of pipelines	m	50		
		.02 Testing of manholes	No.	3		
	601.08	**French drains constructed according to SANS 10400-PP10:**				
EG 07.04		.01 Soak-away test	No.	2		
	601.09	**Supply and install a prefabricated septic tank approved according to SANS 0400 - PP10 & 52566. including excavation and backfilling with selected material and all necessary soil pipe connections**				
		.01 3600 litres septic tank system	No.	3		
		.02 Construction of new french drain, with dimensions of 10,0 m long x 1.2 m wide x 1,5 m deep below the invert of the inlet pipe	No.	3		
		.03 Perforated 110mm PVC pipe	m	40		
		.04 250 micron damp proof course or similar approved	m^2	50		
		.05 Stone 19mm for soak-away	m^3	15		
SABS 1200 DA 8.3	602.00	**EXCAVATION AND MATERIAL**				
	602.01	**Repair existing french drain installations:**				
8.3.2		.01 Excavate trenches in all materials and use for backfill or embankment or dispose	m^3	4		
		.02 Extra over item .01 above for				
		.01 Intermediate excavation	m^3	4		
		.02 Hard rock excavation	m^3	2		
		.03 Importing and placing of 65-125mm rock fill from commercial sources	m^3	3		
		Carried forward				

SCHEDULE No. A6: INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	602.01	.03 UPVC fittings and pipes:				
		.01 110 mm ø plain bend 87.5°	No.	3		
		.02 110 mm ø plain 4 way T-junction 45°	No.	4		
		.03 110 mm ø square double junction	No.	12		
		.04 110 mm ø 135° junction	No.	3		
		.05 110 mm ø 90° junction	No.	3		
		.06 110 mm ø 90° junction	No.	3		
		.07 110 mm ø UPVC pipe	m	12		
	603.00	**REGISTRATION OF A WATER USE**				
EN.01	**603.01**	Obtain all relevant information from different authorities, complete and dispatch the application forms, and ensure that registration is completed on behalf of the Department of Public Works and Infrastructure	No.	3		
		TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A6: INSTALLATION C5.R: SEPTIC TANKS AND SEWER NETWORKS				

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A7: **INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE** **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	700.00	**GRAVEL SHOULDERS AND WEARING COURSE**				
CA.01.02	700.01	**Gravel shoulders constructed from gravel from commercial sources:**				
		.01 Compacted to 93% of modified AASHTO density (150 mm compacted layer thickness)	m^3	3		
CA.01.03 COLTO		.02 Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m^3-km	4		
CA.02	701.00	**SURFACE REPAIRS OF CONCRETE PAVEMENTS**				
CA.02.01	701.01	**Preparation and sealing or resealing of old joints and cracks in existing concrete pavements**				
		.01 Expansion joints	m	30		
		.02 Construction joints and weakened plane joints	m	30		
		.03 Cracks	m	30		
CA.02.02	701.02	**Patching of concrete**	m^2	6		
CA.04	702.00	**SURFACE TREATMENT OF SURFACED ROADS**				
CA.04.01	702.01	**Trimming the edges and edge breaks of the existing surfacing**	m	45		
CA.04.05	702.02	**Mechanical brooming of road surfaces**	m^2	45		
CA.04.06	702.03	**Cleaning of cracks with compressed air**	km	1		
CA.05	703.00	**REPAIR OF SEGMENTED PAVING**				
CA.05.01	703.01	**Remove concrete paving blocks:**				
		.01 Discard paving blocks	m^2	80		
		.02 Stockpile and re-use paving blocks	m^2	180		
		Carried forward				

SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
CA.05.02	**703.02**	**Excavation for repair of segmented paving:**				
		.01 Discard paving blocks	m^3	12		
		.02 Stockpile and re-use paving blocks	m^3	5		
CA.05.03	**703.03**	**Backfilling and reinstatement of pavement layers:**				
		.01 Selected layers compacted to 93% of modified AASHTO density	m^3	120		
		.02 Cement stabilized subbase layers compacted to 95% of modified AASHTO density	m^3	12		
		.03 Cement stabilized base layers compacted to 97% modified AASHTO density	m^3	16		
CA.05.04	**703.04**	**Cast in situ concrete and formwork in edge beams, intermediate beams and kerbing:**				
		.01 Class 20 concrete	m^3	5		
CA.05.05	**703.05**	**Breaking up and removing concrete edge beams, intermediate beams, etc.**	m^3	5		
CA.05.06	**703.06**	**Steel reinforcement in edge beams, intermediate beams and kerbing:**				
		.01 Mild steel bars	kg	250		
		.02 High-tensile steel bars	kg	250		
		.03 Welded steel mesh	kg	100		
CA.05.07	**703.07**	**Concrete block paving:**				
		.01 Class, type and thickness similar to existing pavement for areas carrying vehicular traffic (80 mm interlocking paving blocks (grey) on 25 mm bedding sand)	m^2	420		
		.02 Re-use stockpiled block paving (80 mm interlocking paving blocks on 25 mm bedding sand)	m^2	40		
		.03 60 mm interlocking paving blocks on 25 mm bedding sand for pedestrian and light vehicle traffic	m^2	45		
CA.05.08	**703.08**	**Replacement of jointing sand**	m	30		
Carried forward						

SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CA.06	**704.00**	**REPAIR OF KERBING**				
CA.06.01	**704.01**	**Patching of kerbs**	m	4		
CA.06.02	**704.02**	**Reinstalling pre-cast kerbs**	m	15		
CA.06.03	**704.03**	**Replacing of kerbing:**				
		.01 Barrier kerbs similar to existing undamaged barrier kerbs	m	12		
		.02 Semi-mountable kerbs similar to existing undamaged semi-mountable kerbs	m	12		
		.03 Mountable kerbs similar to existing undamaged mountable kerbs	m	12		
	705.00	**ROAD TRAFFIC SIGNS AND ROAD MARKINGS**				
CA.07	**705.01**	**Erection and repair of road traffic signs and traffic-control devices:**				
CA.07.01		.01 Erection or reinstatement of road sign boards:				
		.01 Area not exceeding 2 m²	m²	2		
CA.07.02		.02 Supply and installation of sign boards:				
		.01 1.2mm thick non reflective, full colour, signs with baked silicone polyester enamel paint consisting 4 - 6 micron (DFT) primer and 18 - 22 micron (DFT) final coat mounted in buildings or to entrances of buildings	m	2		
		.02 1.4mm thick non reflective, full colour, signs with baked silicone polyester enamel paint consisting 4 - 6 micron (DFT) primer and 18 - 22 micron (DFT) final coat mounted on frames in open areas	m	2		
		.03 1.4mm thick pre-painted galvanised steel road signs less than 1.5m²	m	2		
		.03 Road sign supports (overhead road sign structures excluded):				
CA.07.03		.01 Steel tubing of 76 mm diameter and 3 mm wall thickness	m	2		
CA.07.04		.02 Hazard plates (600 x 150 mm)	No.	2		
CA.07.05		.03 Repair of road sign faces	m²	2		
CA.07.06		.04 Excavation and backfilling for road sign supports	m³	2		
		Carried forward				

SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CA.07.07	705.01	.05 Extra over item 705.01.04 for cement-treated soil backfill	m^3	2		
CA.07.08		.06 Extra over item 705.01.04 for rock excavation	m^3	1		
CA.07.09		.07 Gravel drainage layer below road sign footings	m^3	2		
CA.08	705.02	**Road markings:**				
CA.08.01		.01 Retro-reflective road-marking paint:				
		.01 Longitudinal lines:				
		.01 100 mm wide broken or unbroken lines, white, yellow or red	m	240		
		.02 150 mm wide broken or unbroken lines, white, yellow or red	m	45		
		.02 Transverse lines and other markings:				
		.01 Broken or unbroken lines, white, red or yellow	m^2	8		
		.02 Lettering and symbols, white, red or yellow, repainting existing markings	m^2	8		
		.03 Traffic island markings, white or yellow repainting existing markings	m^2	5		
CA.08.03		.02 Removal of road markings				
		.01 Removal of markings by means of grit-blasting	m^2	16		
		.02 Removal of markings by other mechanical methods	m^2	12		
	706.00	**CHEMICAL CONTROL OF VEGETATION AND ERADICATION OF UNDESIRABLE VEGETATION**				
CA.09.01	706.01	**Chemical control of vegetation**	m^2	45		
CA.09.02	706.02	**Eradication of undesirable vegetation**	m^2	45		
	707.00	**STORM WATER DRAINAGE**				
CB.01.01	707.01	**Excavation in:**				
		.01 Soft Material	m^3	2		
		.02 Hand Material	m^3	2		
CB.01.02	707.02	**Backfilling and reinstatement of pavement layers:**	m^3	2		
CB.01.03	707.03	**Prefabricated culverts:**	m	6		
		Carried forward				

SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE **CIVIL REPAIR WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
CB.01.04	**707.04**	**Cast *in situ* concrete and formwork in storm water structures:**				
		.01 Class 20 concrete	m^3	2		
		.02 Class 25 concrete	m^3	2		
CB.01.05		.03 Replacement of manhole cover, grid inlets, etc.				
		.01 SABS 558 Type 4 - covers, grids etc.				
		.01 Maximum dimension up to including 300mm	No.	1		
		.02 Maximum dimension 300 mm to 600 mm	No.	1		
		.02 SABS 558 Type 4 - frames only for cover, grids etc.				
		.01 Maximum dimension up to including 300mm	No.	1		
		.02 Maximum dimension 300 mm to 600 mm	No.	1		
		.03 SABS 558 Type 2A - covers, grids,etc.				
		.01 Maximum dimension up to including 300mm	No.	1		
		.02 Maximum dimension 301 mm to 600 mm	No.	1		
		.04 SABS 558 Type 2A - frames only for covers, grids, etc.				
		.01 Maximum dimension up to including 300mm	No.	1		
		.02 Maximum dimension 301 mm to 600 mm	No.	1		
CB.03	**708.00**	**CONCRETE CONSTRUCTION AND REPAIR**				
CB.03.01		.01 Excavation in:				
		.01 Soft Material	m^3	8		
		.02 Hand Material	m^3	6		
CB.03.02		.02 Cast in situ concrete				
		.01 Class 20 concrete	m^3	2		
		.02 Class 30 concrete	m^3	2		
Carried forward						

SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE

CIVIL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
CB.03.03	708.00	.03 Backfill below channels	m^3	3		
CB.03.04		.04 Steel reinforcement				
		.01 Welded steel mesh ref. 193	kg	350		
CB.03.05		.05 Precast concrete kerbing:	m	15		
CB.03.06		.06 Sealed joints in concrete lining open drains	m	20		
CB.03.07		.07 Demolition and removal of damaged existing structures				
		.01 Plain concrete	m^3	2		
		.02 Reinforced concrete	m^3	3		
CB.03.08		.08 Concrete side beams	m^3	2		
CB.03.09		.09 Overhaul on material for haut in excess of 1,0 km				
		.01 Excavated material to spoil	m^3 .km	3		
		.02 Existing structures demolished	m^3 .km	3		
CB .04	709.00	**CLEANING OF CONCRETE DRAINS AND CHANNELS**				
CB.04.01		.01 Remove of dispose of material from				
		.01 Drains and channels within the following invert with ranges				
		.01 Less than 1,0 m	m	12		
		.02 1,0 m up to and including 2,0 m	m	12		
CB.04.02		.02 Overhaul on material for haul in excess of 1.0 km	m^3 .km	2		
CB 08	710.00	**Cleaning of pipelines**	m	12		
CK .06	711.00	**PATENTED EARTH RETAINING STRUCTURES**				
	711.01	**Repair work to existing structure**				
		.01 Repairs to existing precast concrete block retaining walls	m^2	4		
SANS 1200CK 8.2.5	711.02	**Stone-pitching**				
		.01 Pitching (light)	m^2	5		
		TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A7: INSTALLATION C6.R: ROADS AND STORM WATER DRAINAGE				

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB TENDERERS MUST COMPLETE THE SCHEDULE OF QUANTITIES IN BLACK INK

SUMMARY OF SCHEDULE OF QUANTITIES:ELECTRICAL REPAIR WORK

		TOTAL SUMMARY
SCHEDULE No. A8:	INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL	R
SCHEDULE No. A9:	INSTALLATION E2.R: EXTERNAL LIGHTING	R
SCHEDULE No. A10:	INSTALLATION E3.R: STANDBY POWER SYSTEMS	R

TOTAL OF SCHEDULE OF QUANTITIES - ELECTRICAL REPAIR WORK CARRIED TO CALCULATION OF TENDER SUM R

SIGNED ON BEHALF OF TENDERER:

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/016AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A8: **INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL**

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	800.00	**REPAIR AND SERVICE ELECTRICAL INSTALLTIONS**				
AB 10.02.01	800.01	**Repair/service/replace parts of distribution boards:** **PLEASE NOTE THAT THE PRICE IS NOT FOR THE COMPLETE REPLACEMENT OF THE BOARDS/BOXES UNLESS SPECIFICALLY INDICATED**				
		.01 Repair and service the floor standing three phase three division distribution board for Normal and emergency power inside the Generator room and all the contactors, earth leakage relays, switches, circuit breakers and metering equipment and cables inside	No.	3		
		.02 Repair and service the wall mounted, two division three phase four section, distribution board inside the Main Operational Office including all (circuit breakers and isolating switches), the earth leakage relays, switches, circuit breakers, contactors, surge arrestors and cables	No.	3		
		.03 Repair and service wall mounted, (Normal, and UPS) phase distribution board in the supporting offices including all the earth leakage relays, switches, circuit breakers, contactors, surge arrestors, wires and cables	No.	12		
		.06 Repair and service the flush/surface mounted distribution boards all the earth leakage relays, switches, circuit breakers, surge arrestors, wires and cables (Ablutions)	No.	4		
		.08 Repair and service the flush/surface mounted distribution boards all the earth leakage relays, switches, circuit breakers, surge arrestors, wires and cables (Residential Buildings)	No.	27		
AB.01.20	800.02	Supply Marker Kit and labelling of all distribution boards, electrical equipment, cables and wiring, with the required information, including face plates on bodies of light switches, socket outlets and isolators by means of engraved or embossed labelling as well as typed legend cards showing all the equipment inside distribution boards / boxes.	Sum	1		
Carried forward						

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
AB.01.13A	**800.03**	**Service and repair of moulded case circuit breaker (to SANS 156):**				
		.01 10-20A, 6kA single pole 240V	No.	30		
		.02 25-80A, 6kA single pole 240V	No.	15		
		.03 40-80A, 6kA triple pole 600V	No.	5		
		.04 100-160A, 6kA triple pole 600V	No.	5		
		.05 180-350A, 6kA triple pole 600V	No.	1		
AB.01.13B	**800.04**	**Supply and installation of moulded case circuit breaker and linked isolating switches (to SANS 156):**				
		.01 10-60A, 6kA single pole 240V	No.	5		
		.02 80-100A, 6kA single pole 240V	No.	3		
		.03 40-80A, 6kA four pole 600V	No.	5		
		.04 100-160A, 6kA four pole 600V	No.	3		
AB.01.15	**800.05**	**Supply and replace faulty contactors:**				
		.01 20-100A, double pole 250V	No.	4		
		.02 30-60A, 3 pole 600V	No.	3		
AB.01.16	**800.06**	**Supply and replace faulty switching timers:**				
		.01 Electronic QAT-R-type time switch with 24hr time reserve 20A - 240V	No.	3		
		.02 Electronic QAT-R-type time switch with 24hr time reserve 60A - 240V	No.	2		
AB.01.17	**800.07**	**Supply and replace faulty earth leakage units (SANS approved):**				
		.01 60-80A, 6kA double pole - 25mA - 240V	No.	15		
AB.01.18	**800.08**	**Supply and install fuses for lightning protection for electronic equipment (SANS approved):**				
		.01 Fuse holder DF PMF type 10x38, 32A, 690V or equivalent	No.	4		
		.02 Fuses to fit in the fuse holders, 15A - 125A 1.5kV	No.	4		
AB.01.19	**800.09**	**Supply and install faulty surge arrestors - Din Rail Mount Surge Protection Devices:**				
		.01 3 Pole and Neutral 275V 15kA with indication	No.	12		
		.02 1 Pole and Neutral 275V 15kA with indication	No.	20		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
AB.01.11	**800.10**	**Supply and install earth continuity conductor:**				
		.01 70 mm² BCEW	m	20		
		.02 70 mm² copper clad earthing conductor	m	20		
AB.01.12	**800.11**	**Terminate earth continuity conductors:**				
		.01 70 mm² BCEW	No.	5		
		.02 70 mm² copper clad earthing conductor	No.	5		
	801.00	**ENERGY MANAGEMENT**				
AB.01.21	**801.01**	**Supply and install rail mounted kWh meters in distribution boards and kiosks:**				
		.01 Single phase DIN rail mounted kWh energy meter	No.	13		
		.02 Three phase DIN rail mounted kWh energy meters	No.	3		
	802.00	**LIGHTING INSTALLATION**				
AB.02.01	**802.01**	**Re-lamp and clean diffuser of luminaire:**				
		.01 58W Fluorescent single	No.	20		
		.02 58W Fluorescent double	No.	25		
		.03 18W CFL lamp	No.	21		
		.04 70W HPS Lamp	No.	19		
		.05 PL9 W	No.	20		
AB.02.02	**802.02**	**Service Luminaire:**				
		.01 2 x 58W SABS open channel fluorescent luminaire – similar to Beka lighting type	No.	20		
		.02 1 x 58W SABS open channel fluorescent luminaire - similar to Beka lighting type	No.	15		
		.03 2 x 58W SABS IP 55 fluorescent luminaire - similar to similar to Beka lighting type with watertight diffuser	No.	4		
		.04 70W HPS B40. Britelite wall mounted bulkhead luminaire : similar to Beka lighting type	No.	10		
		.05 Bulkhead luminaire - similar to Beka lighting type	No.	20		
Carried forward						

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.		DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward							
AB.02.02	802.02	.06	Decorative round bulkhead – radiant type: WT2A	No.	20		
		.07	Bowl type IP55 bathroom fitting with ceramic lamp holder with similar to Dulux el eco 21w/e27 lamp	No.	10		
		.08	Wall/ceiling mounted décor spot light ILM type : ACC/spt/100	No.	15		
		.09	Ceiling mounted 2 light decorative luminaire décor spot light ILM type : ACC/spt/100 21w/e27 lamps	No.	4		
		.10	Ceiling mounted 3 light decorative luminaire décor spot light ILM type : ACC/spt/100 21w/e27 lamps	No.	4		
		.11	2 x 58W SABS open channel fluorescent luminaire – similar to Beka lighting type	No.	4		
AB.02.03	802.03	**Repair/replace luminaire:**					
		.01	1 x 55W LED SABS open channel fluorescent luminaire - similar to Beka lighting type	No.	10		
		.02	2 x 55W LED SABS IP 65 fluorescent luminaire - similar to Beka lighting type with diffuser	No.	10		
		.03	2 x 55W LED SABS IP 65 fluorescent luminaire - similar to Beka vapour line LED lighting type : VLN 2, 58W ECG with watertight diffuser	No.	8		
		.04	34W LED B40. Britellte wall mounted bulkhead luminaire : similar to Beka lighting type	No.	10		
		.05	Bulkhead luminaire - similar to Beka lighting type: B10 with 10W LED	No.	10		
		.06	Decorative round bulkhead – radiant type: WT2A	No.	10		
		.07	Décor round cheese bulkhead 250 mm glass bowl-ilm type: similar to Beka lighting type	No.	10		
		.08	14W LED Emergency light fitting with rechargeable batteries with watertight diffuser connected to 240V power supply	No.	2		
Carried forward							

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
AB.02.06	**802.04**	**Replace luminaire diffuser, lens or glass bowls:**				
		.01 34W LED B40. Britelite wall mounted bulkhead luminaire : similar to Beka lighting type	No.	5		
		.02 Bowl type IP55 bathroom fitting with ceramic lamp holder with similar to Dulux el eco 21w/e27 lamp	No.	5		
		.03 Décor round cheese bulkhead 250 mm glass bowl-ilm type: Dec/md/chs/250 with 21W similar to Dulux el eco lamp	No.	5		
AB.02.10	**802.05**	**Replace luminaire internal components :**				
		.01 Choke and capacitor for 58W Fluorescent	No.	10		
		.02 Choke and capacitor for 18W Fluorescent	No.	5		
		.03 Fluorescent lamp starter	No.	10		
		.04 Control gear for 70W HPS B40. Britelite wall mounted bulkhead luminaire : similar to Beka lighting type	No.	10		
AB.02.08	**802.06**	**Strengthening the roof beam structure to carry the load of luminaires/fan lights**	No.	5		
AB.02.09	**802.07**	**Replace lamp holder (Ceramic)**	No.	10		
AB.02.07	**802.08**	**Service light switches (all types)**	No.	50		
AB.02.04	**802.09**	**Replace faulty light switch:**				
		.01 16A, one lever, one way	No.	20		
		.02 16A, two lever, one way	No.	10		
		.03 16A, three lever, one way	No.	3		
		.04 16A, water tight, robust	No.	5		
		.05 16A, single lever, one way IP55 rotary type	No.	2		
AB.02.05	**802.10**	**Replace Photo-electric switch:**				
		.01 16A unit with bracket and mounted on meter/distribution box	No.	1		
		.02 16A unit with bracket and mounted inside bulkhead fitting on outside wall of building	No.	4		
Carried forward						

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	803.00	**WIRING**				
AB.01.04	**803.01**	**Install/remove/replace wiring :**				
		.01 2,5 mm² PVC insulated	m	200		
		.02 4 mm² PVC insulated	m	250		
		.03 6 mm² PVC insulated	m	20		
		.04 10 mm² PVC insulated	m	10		
		.05 2,5 mm² BCEW	m	175		
		.06 4 mm² BCEW	m	175		
		.07 6mm² BCEW	m	175		
	804.00	**WIRE WAYS CONDUITS AND ACCESSORIES**				
AB.03.04	**804.01**	**Supply, replace/install conduit and with the correct saddles :**				
		.01 20 mm dia. Galvanised Steel	m	150		
		.02 25 mm dia. Galvanised Steel	m	20		
		.03 32 mm dia. Galvanised Steel	m	10		
		.04 20mm galv. Steel Saddles	No.	50		
		.05 25mm galv. Steel Saddles	No.	30		
		.06 32mm galv. Steel Saddles	No.	10		
AB.03.11	**804.02**	**Supply and install outlet (draw) boxes, bends and cover plates:**				
		.01 100 x 50 Galvanised Steel	No.	10		
		.02 100 x 100 Galvanised Steel	No.	10		
		.03 50 x 100 mm white enamel extension box	m	11		
		.04 100 x 100 mm white enamel surface box	m	12		
		.05 Circular 75mm Galvanised Steel	m	25		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
AB.03.09	**804.03**	**Replace power skirting:**				
		.01 2-tier powder-coated galvanised steel	m	30		
		.02 3-tier powder-coated galvanised steel	m	30		
		.03 2-tier PVC	m	6		
		.04 3-tier PVC	m	7		
AB.03.05	**804.04**	**Replace wiring channel:**				
		.01 OL 2000, 41.3 x 41.3 mm	m	10		
		.02 OL 9000, 127 x 76 mm	m	10		
		.03 White PVC 100 x 76 mm	m	10		
		.04 White PVC 40 x 40 mm	m	10		
AB.03.10	**804.05**	**Supply and install junction boxes:**				
		.01 83 mm ø - double entry	m	10		
		.02 127 mm ø - 3 way	m	10		
	805.00	**SWITCH SOCKET OUTLETS (SSO)**				
AB.03.07	**805.01**	**Service switch socket outlet mounted in/on wall or in power trunking:**				
		.01 16A, single SSO	No.	100		
		.02 16A, double SSO	No.	30		
		.03 16A, dedicated SSO	No.	30		
AB.03.01	**805.02**	**Replace/install socket outlet:**				
		.01 16A, single 3 pin SSO	No.	15		
		.02 16A, double 3 pin SSO	No.	15		
		.03 16A, dedicated SSO	No.	10		
		.04 16A, single SSO power skirting mounted	No.	10		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
	806.00	**FIXED APPLIANCE AND COMPONENTS**				
AB.03.19	806.01	**Replace geyser components:**				
		.01 Replace domestic geyser element 2kW, 3kW and 4kW	No.	5		
		.02 Replace geyser thermostat and set to 55° Celsius	No.	5		
AB.03.18	806.02	**Replace domestic stove components :**				
		.01 150 - 160 dia. solid plate	No.	8		
		.02 170 - 190 dia. solid plate	No.	8		
		.03 Five / six heat switch	No.	4		
		.04 Oven bottom element	No.	5		
		.05 Oven top element	No.	5		
AB.03.20	806.03	**Supply and install 4 plate stove with oven and warm drawer similar or equal to existing**	No.	3		
	806.04	**Supply and install new Stainless Steel Hand Dryer, 2,2/2,4kW Hands Free operation.**	No.	7		
AB.03.06	806.05	**Replace connection from isolator to fixed appliance, with flexible copex (Sprague) conduit and conductors, e.g. stove, hand dryers or geyser, etc:**				
		.01 Stove : 2 x 6 mm² PVC and 2,5 mm² BCEW conductors	No.	5		
		.02 Geyser : 2 x 4 mm² PVC and 2,5 mm² BCEW conductors	No.	5		
		.03 Air conditioners: 2 x 6 mm² PVC and 2,5 mm² BCEW conductors	No.	5		
		.04 Hand dryers: 2 x 6 mm² PVC and 2,5 mm² BCEW conductors	No.	2		
AB.03.08	806.06	**Service isolating switches next to stoves, geysers, hand dryers and air-conditioners:**				
		.01 20 A, 2 pole 275V	No.	13		
		.02 40A - 80A, 2 pole 275V	No.	10		
		.03 80 - 160A, 3 pole 600V	No.	4		
Carried forward						

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
AB.03.02	806.07	**Repair/replace/install isolating switches next to stoves, geysers, hand dryers and air-conditioners:**				
		.01 20 - 60 A, 2 pole 275V	No.	30		
		.02 40A - 80A, 2 pole 275V	No.	10		
		.03 80 - 100A, 2pole	No.	3		
		.04 60 - 100A, 4 pole 600V	No.	2		
AB.03.03	806.08	**Replace plug tops:**				
		.01 3-pin 16A	No.	6		
	807.00	**EARTHING AND BONDING OF WATER PIPES**				
AB.04.01	807.01	**Supply and install earthing and bonding of metallic water pipes for the whole installation**	m	75		
	808.00	**LIGHTNING PROTECTION**				
AB.04.03	808.01	**Supply and install earth electrodes:**				
		.01 16 mm dia. 1.2 m long Cu rod and clamp	No.	5		
AB.04.04	808.02	**Provide Cad weld joint on 70 mm² cable**	No.	5		
AB.04.05	808.03	**Earth building metal roof, gutters and downpipes**	No.	3		
AB.04.02	808.04	**Testing of lightning earthing by a specialist contractor**	No.	3		
AB 01.11	808.05	**Supply and installation of bare copper earth conductor:**				
		.01 70 mm²	m	50		
		.02 35 mm²	m	60		
		.03 10 mm²	m	60		
AB.01.12	808.06	**Termination and connect earth continuity conductor:**				
		.01 70 mm²	No.	10		
		.02 35 mm²	No.	10		
		.03 10 mm²	No.	10		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	809.00	**Excavate in all materials for trenches, backfill, compact and dispose of surplus material and dispose of surplus material**				
AB.01.07	809.01	**Excavate in all materials for trenches, backfill, compact and dispose of surplus material**	m^3	2		
AB.01.07	809.02	**Extra over item above for excavating in hard materials as approved by the engineer**	m^3	2		
AB.01.07	809.03	**Extra over item above for the removal and reinstating of all types of paving**	m^2	2		
AB.01.09	809.04	**Supply and install plastic warning tape**	m	7		
AB.01.08	809.05	**Supply and install uPVC cable sleeves:**				
		.01 110 mm diameter	m	50		
		.02 76mm diameter	m	20		
		.03 50 mm diameter uPVC	m	10		
	810.00	**REPAIR/REPLACE CABLING**				
AB 01.03	810.01	**Supply, delivery and installation of PVC/SWA/PVC Cu low-voltage cable:**				
		.01 120 mm^2, 4-core	m	30		
		.02 95 mm^2, 4-core	m	30		
		.03 70 mm^2, 4-core	m	10		
		.04 35 mm^2, 4-core	m	20		
		.05 25 mm^2, 4-core	m	30		
		.06 16 mm^2, 4-core	m	30		
		.07 16 mm^2, 2-core ECC	m	30		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
AB 01.05	810.02	**Termination of PVC/SWA/PVC Cu LV cable including lugs, tape etc:**				
		.01 120 mm², 4-core	No.	5		
		.02 95 mm², 4-core	No.	5		
		.03 70 mm², 4-core	No.	5		
		.04 35 mm², 4-core	No.	5		
		.05 25 mm², 4-core	No.	5		
		.06 16 mm², 4-core	No.	5		
		.07 16 mm², 2-core ECC	No.	5		
AB 01.05	810.03	**Jointing of low voltage cable including lugs, etc:**				
		.01 120 mm², 4-core	No.	6		
		.02 95 mm², 4-core	No.	5		
		.03 70 mm², 4-core	No.	5		
		.04 35 mm², 4-core	No.	5		
		.05 25 mm², 4-core	No.	5		
		.06 16 mm², 4-core	No.	10		
		.07 16 mm², 2-core ECC	No.	10		
	811.00	**DISTRIBUTION KIOSKS**				
HC 12.03	811.01	**Service distribution kiosk**	No.	2		
HC 12.03	811.02	**Remove rust and paint kiosks**	No.	2		
HC 12.03	811.03	**Label kiosks, electrical equipment, circuit breakers, switches, meters, cables and wiring, with the required information as well as providing typed legend cards inside the door/s, showing all the equipment inside the kiosk/box.**	No.	2		
HC 12.03	811.04	**Supply and install key-alike padlocks**	No.	5		
HC 12.03 (f)	811.05	**Replace door hinges on meter and distribution kiosks**	No.	1		
HC 12.03	811.06	**Supply and install door handles**	No.	1		
HC 12.03	811.07	**Repair/Replace distribution kiosk (6 way) excluding circuit breakers, switches, meters and labelling:**	No.	2		
		.01 Erection on site: Concrete foundation with 4x holding down (HD) bolts, imbedded 500mm deep into concrete	No.	2		
		Carried forward				

SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Brought forward				
	811.08	**Repair two electrical operated boom controllers at entrance and exit**	Sum	2		
AB.06.04	**811.09**	**Supply the following tools and spares:**				
		.01 18W Compact fluorescent globes	No.	5		
		.02 PL9W lamps	No.	5		
		.03 58W Fluorescent lamps	No.	10		
		.04 125W Sodium vapour lamps	No.	3		
		.05 Stove type fuses various types and sizes	No.	4		
		.06 150mm Solid Stove Plate	No.	1		
		.07 190mm Solid Stove Plate	No.	1		
		.08 Stove oven top elements	No.	1		
		.09 Stove oven bottom elements	No.	1		
		.10 Geyser elements	No.	1		
		.11 Geyser thermostats	No.	1		
		.12 Distribution Kiosk combination key (2x square, triangular and round hole with stubs	No.	1		
SABS 1200 A	**812.00**	**Certificates of Compliance**				
Sl.01	**812.01**	**OCCUPATIONAL HEALTH AND SAFETY ACT**				
AB.03.21		.01 Provide Certificates of Compliance for the ELECTRICAL installations in all buildings within one month of the completion date of the project at: Boesmansnek Land Port of Entry: Approx. 26 Buildings Ramatselitso Land Ports of Entry: Approx. 17 Buildings Ongeluksnek Land Ports of Entry: Approx. 18 Buildings	PC Sum	-	-	R 80 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R 80 000.00	..... %	
		.03 Provide Certificates of Compliance for the LIGHTNING PROTECTION installations in all buildings within one month of the completion date of the project at: Boesmansnek Land Port of Entry: Approx. 26 Buildings Ramatselitso Land Ports of Entry: Approx. 17 Buildings Ongeluksnek Land Ports of Entry: Approx. 18 Buildings	PC Sum	-	-	R 80 000.00
		.04 Charge required by Contractor on sub item .01 above	%	R 80 000.00	..... %	
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A8: INSTALLATION E1.R: BUILDING AND SITE ELECTRICAL						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A9: INSTALLATION E2.R: EXTERNAL LIGHTING

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	900.00	**EXTERNAL LIGHTING: REPAIR INSTALLATION**				
		GENERAL REPAIR				
	900.01	**Excavations**				
HE 08.06(a)		.01 Excavate in all materials for trenches, backfill, compact and dispose of surplus material	m^3	10		
HE 08.06(b)		.02 Extra over item .01 for excavating in hard material	m^3	5		
		.03 Extra over item .01 for excavating by hand in all material	m^3	10		
HE 08.06(d)		.04 Extra over item .01 for using backfill material obtained from sources provided by the Contractor	m^3	5		
HE 08.06(e)	900.02	**Supply and install uPVC sleeves:**				
		.01 110mm diameter	m	12		
		.02 76mm diameter	m	6		
		.03 50mm diameter	m	6		
HE 08.06(f)	900.03	**Supply and install cable warning tape**	m	50		
HE 08.06(h)	900.04	**Supply and install PVC/SWA/PVC Cu LV cable:**				
		.01 16mm², 4-core	m	10		
		.02 10mm², 4-core	m	10		
HE 08.06(l)	900.05	**Termination of PVC/SWA/PVC Cu LV cable:**				
		.01 16mm², 4-core	No.	3		
		.02 10mm², 4-core	No.	3		
Carried forward						

SCHEDULE No. A9: INSTALLATION E2.R: EXTERNAL LIGHTING

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
HE 08.06(j)	900.06	**Supply and installation of bare copper earth conductors:**				
		.01 10mm²	m	10		
		.02 6mm²	m	10		
HE 08.06(l)	900.07	**Termination of bare copper earth conductors:**				
		.01 10mm²	No.	3		
		.02 6mm²	No.	3		
HE 08.06(n)(i)	900.08	**Re-lamp luminaire:**				
		.01 70W HPS street light	No.	5		
		.02 250W HPS street light	No.	5		
		.03 125W HP MV street light	No.	5		
		.04 26W CF lamp	No.	5		
HE	900.09	**Service luminaire:**				
		.01 70W HPS street light	No.	2		
		.02 250W HPS street light	No.	7		
		.03 125W MV street light	No.	2		
HE	900.10	**Replace luminaire:**				
		.01 53W LED street light	No.	2		
		.02 136W LED street light	No.	2		
		.03 279W LED street light	No.	2		
		.04 57W LED Post Top	No.	2		
		.05 213W Floodlight luminaire	No.	2		
		.06 143W LED Canopy luminaire	No.	2		
		.07 476W High Bay floodlight luminaire	No.	2		
Carried forward						

SCHEDULE No. A9: INSTALLATION E2.R: EXTERNAL LIGHTING

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
HE 08.06(o)	900.11	**Supply and installation of internal luminaire components:**				
		.01 GES porcelain lamp holder	No.	3		
		.02 Balast for up to 125W MV/HPS	No.	3		
		.03 Ignitor for up to 125W MV	No.	3		
		.04 Capacitor for up to 125W MV/HPS	No.	3		
		.05 Balast for 250W MV/HPS	No.	3		
		.06 Ignitor for 250W MV/HPS	No.	3		
HE 08.06(z)	900.12	**Replace Luminaire diffuser:**				
		.01 250W Floodlight	No.	3		
		.02 125W Posttop luminaire	No.	3		
HE 08.06(u)	900.13	**Supply and install photocell (plug-in type)**	No.	5		
HE 08.06(s)	900.14	**Supply and install contactors 40A/240V**	No.	4		
HE 08.06(x)	900.15	**Supply and install end connectors and insulating sleeves**	No.	10		
HE 08.06(ac)	900.16	**Supply and install junction box including pole mount brackets (3 way parallel entry cable boxes):**				
		.01 300mm x 200mm x 150mm - Junction boxes IP65 (Enclosure) 2mm thick galvanised steel boxes complete with cable entry gland plates, mounting plates and pole mounting brackets complete	No.	2		
HE	900.17	**Replace pole cover for clip-on tray and circuit breaker**	No.	5		
HE	900.18	**Repair clip-on tray and circuit breaker inside pole**	No.	15		
HE	900.19	**Supply and install junction boxes including mount brackets**	No.	3		
HE	900.20	**Remove rust, treat and paint junction boxes mounted on poles**	No.	10		
HE	900.21	**Label and number poles and cables inside poles, and junction boxes and cables mounted on poles**	No.	40		
HE 08.06(af)	900.22	**Supply and install padlocks**	No.	15		
		Carried forward				

SCHEDULE No. A9: INSTALLATION E2.R: EXTERNAL LIGHTING

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
HE 08.06	**900.23**	**Replace fibre glass poles with lamp mounting stub/arm:**				
		.01 9m fibre glass poles	No.	2		
		.02 5m fibre glass poles replace with galvanised steel	No.	2		
		.03 Access door pole cover	No	4		
HE 08.06	**900.24**	**Service and straighten steel, fibre glass or wooden poles with lamp mounting stub/arm:**				
		.01 4m fibre glass poles	No.	2		
		.02 9.5m fibre glass poles	No.	7		
		.03 9m galvanised steel poles	No.	1		
		TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A9: INSTALLATION E2.R: EXTERNAL LIGHTING				

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A10: **INSTALLATION E3.R: STANDBY POWER SYSTEMS**

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		PREAMBLE **Pricing of bills of quantities** *The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities.* *Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained.* *Prices for all construction equipment, temporary works, services, replacement parts and other items shall include for the supply, maintenance, operating cost, commissioning and subsequent removal and making good as necessary.*				
Carried forward						

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	1000.00	**STANDBY POWER INSTALLATIONS:** **Repair and servicing of the Existing standby power installation, to a functional and operational state**				
SA 02.09		Note: This section of the BOQ provides for initial reinstatement of all standby power installations, equipment facilities, to its optimal functioning status/condition, reliability and compliance with relevant safety and environmental legislation. Note that the maintenance phase commences concurrently with the commencement of the repair phase. Maintenance activities scheduled to take place during the repair phase can only be omitted/rescheduled with the written instruction of the Engineer in consultation with the Project Manager.				
HB.05		All work, spares, consumable and installation material necessary to rectify any malfunction of the machines or any part thereof which is to be carried out or supplied under the repair, restoration and legislated compliance part of the contract will be applicable to: Boesmansnek Land Port of Entry: Engines Description: One John Deere diesel engine, Model: CD6068C037149. Coupled to a 125kVA Faraday Alternator FD3C1-4, maintenance is not limited to the above-mentioned Ramatselitso Land Ports of Entry: Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4, maintenance is not limited to the above-mentioned Ongeluksnek Land Ports of Entry: Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4, maintenance is not limited to the above-mentioned				
SB.01	**1001.00**	**MANUALS** **Compile and supply a complete set of Operating and Maintenance Manuals for the standby power installation specified:**	Sum	1		
		Carried forward				

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
SA.01	**1002.00**	**Repair and servicing of the Existing standby power installation, to a functional and operational state**				
		PLEASE Note: All items must include the cost of labour, all consumable and installation materials:				
HB 10.03.04		.01 Supply and install new starter battery when tests prove that the battery has reached the end of it's useful life	No.	2		
HB 10.03.05		.02 Removal and recondition and installation of the starter motor including all replacement parts	No.	1		
HB 10.03.05		.03 Remove supply and replace the fuel injector set	Set	1		
HB 10.03.07		.04 Refurbish, including parts, calibrate and install the fuel injector pump	No.	1		
HB 09.02.01		.05 Do a compression test on all cylinders; and providing test equipment	No.	1		
HB 09.02.01		.06 Set the valve/tappet clearance; replace all damaged seals and all gaskets between parted surfaces	Set	1		
HB 10.03.08		.07 Change the V-belts, multi V-groove drive belts, toothed belts (all belts) if conditions justify and adjust belt tension and report	Set	1		
		.08 If conditions justify it, change V-belt pulleys, multi V-groove pulleys, toothed pulleys and tensioners / idler pulleys and set pulley alignment and drive belt tension	Set	1		
HB 10.03.10		.09 Check cooling system for leaks: Drain, and flush if necessary; Supply coolant additive in accordance with manufactures specification and refill cooling system	No.	1		
HB 10.03.10		.10 Supply, replace engine coolant hoses, clamps, fittings and radiator cap ; supply coolant additive and replace coolant, do pressure test and report	No.	1		
HB 10.03.10		.11 Radiator service / repair and replace engine thermostat	No.	1		
HB 10.03.39		.12 Supply and replace the heater element and thermostat of the water jacket heater	No.	1		
Carried forward						

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
HB 10.03.15	**1002.00**	.13 Reconditioning of the alternator and charging regulator: (secondary/engine mounted unit) for recharging engine starting battery	No.	1		
HB 10.03.16		.14 Check, test and clean alternator/ generator, regulator and exciter, do minor adjustments and repairs. Check drive shaft coupling. Test and record output parameters under simulated load or actual load	No.	1		
HB10.03.29		.15 Service change-over switchgear	No.	1		
HB10.03.30		.16 Service/overhaul the control panel including cleaning and repairing switch gear parts, such as emergency stop, circuit breakers, relays, bobbins, controllers, replacing unserviceable cables lugs glands, repainting panel enclosure and supply, fit and commission 12 Volt and 24 Volt LED emergency lights operated by a built in run down timer	No.	1		
		.17 Commissioning of system and furnish a Certificate of Compliance for the primary alternator system	No.	3		
		.18 Remove supply and replace Turbo set	No.	1		
		.19 Remove supply and replace Exhaust Heat Wrap	m	30		
HB 06.03	**1002.01**	**Supply and keep on site the followings tools and spares for the power generator sets**				
HB 06.03		.01 Distribution board key	No.	1		
HB 06.03		.02 Distribution board face plate square key	No.	1		
HB 06.03 **HB 10.03.31**		.03 Remote alarm panel key	No.	1		
HB 06.03		.04 HD diesel engine lubricating oil	ℓ	100		
HB 06.03		.05 Fuel, oil, air-filters	Set	1		
HB 06.03		.06 Oil funnel	No.	1		
HB 06.03		.07 Sump plug gasket	No.	1		
HB 06.03		.08 Set of fuel injectors	Set	1		
HB 06.03		.09 Coolant additive (antifreeze)	ℓ	60		
HB 06.03		.10 Pressure cap for radiators (correctly rated)	No.	1		
		.11 Set of V-belts,; Multi V-belts or toothed drive belts	Set	1		
HB 06.03		.12 Battery electrolyte hydrometer	No.	1		
HB 06.03		.13 Distilled water (25 litres)	ℓ	50		
		.14 Jockey pump, hand cranked	No.	1		
Carried forward						

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
HB 06.03	**1002.01**	.15 Provide plant room log books, files, copies of manuals, copies of Acts and statutory notifications and regulations	Set	3		
HB 06.03		.16 Supply and keep stocked of a First Aid Kit (FAK 02A) with the regulation minimum content in a suitable sized first aid box or bag. Refer to HB 03.06.18 for content	No.	3		
HB 10.03.31		.17 Supply plant room door padlock	No.	3		
HB 10,03,12		.18 Supply and install fuel water separator with automatic water dump	No.	1		
SA.01	**1003.00**	**STANDBY POWER REPLACEMENT COST ITEMS** This sections provides for the repair and maintenance of the emergency/standby power generation installations by way of replacement of costly items or entire installations. It is important to note that these items will only be acquired if no feasible alternative can be found and funds can be made available. Only if special approval has been obtained through the relevant Departmental Project Manager, may the Engineer issue an Instruction to proceed with the procurement of the relevant item. For appropriate tender adjudication the values of these items have to be taken into consideration during tender evaluation by way of suitable comparative calculations **PLEASE NOTE: All items must include the cost of all consumable and Installation materials!** **The maintenance scope is described in technical specifications HB:**				
HB 01.01		All work, spares, consumable and installation material necessary to replace the machines or any part thereof which is to be carried out or supplied under the repair, restoration and legislated compliance part of the contract will be applicable to: All aspects of replacements shall be similar or approved to match existing: Boesmansnek Land Port of Entry: Engines Description: One John Deere diesel engine, Model: CD6068C037149. Coupled to a 125kVA Faraday Alternator FD3C1-4, Ramatselitso Land Ports of Entry: Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4, Ongeluksnek Land Ports of Entry: Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4,				
Carried forward						

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.		DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward							
SA.01 HB 01.01	1003.01	.01	Remove, supply and replacement of starter motor	No.	1		
HB 10.03.06		.02	Supply, install and adjust new fuel injector set, including removal of old one	Set	1		
HB 10.03.07		.03	Supply and install new fuel injector pump	No.	1		
HB10.02.02		.04	Supply, installation and commissioning and testing of a Modular Fuel Management System (DMFMS) for clearing bulk tank stored diesel fuel of particulate matter and water contamination (similar or approved to existing)	No.	1		
HB10.02.02		.05	Supply, installation and commissioning and testing of Inline Fuel Filter and Automatically Discharging Water Separation Unit for engine mounting (similar or approved)	No.	1		
HB 10.02.02		.06	Supply, install, commission, test and provide official Calibration Certificate of each of the positive displacement dual register mechanical display diesel fuel flow meter: Maximum flow rate not less than 45l/min	No.	1		
HB 10.02.02		.07	Supply/construct, install, commissioning and testing of fusible link fuel cut-off systems, on power generator installation	No.	1		
HB 10.03.08 (a)		.08	Supply and replace all V-belts, multi V-groove drive belts, toothed belts, adjusting belt tension of all drive belts and report	Set	1		
HB 10.03.08		.09	Pulley system; supply, install and set pulley alignment and drive belt tension for all V-belt pulleys, multi V-groove pulleys, toothed pulleys and tensioners / idler pulleys	Set	1		
HB 10.03.09		.10	Supply and replacement cooling fan including drive train and coolant pump	No.	1		
HB 10.03.11		.11	Remove, recore and refit radiator	No.	1		
HB 10.03.11		.12	Supply and replace radiator and water hoses	No.	1		
HB 10.03.38		.13	Supply and replacement of the water jacket heater, including: mould (if required), element, thermostat, connecting hoses and fittings, insulation, etc.	No.	1		
Carried forward							

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.		DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward							
SA.01 HB 10.03.15	**1003.01**	.14	Supply and replacement of the alternator and charging regulator unit (secondary/engine mounted unit) for charging engine starting battery	No.	1		
HB 10.03.16		.15	Supply, install the repair kit, including exciter service kit, automatic Voltage Regulator, etc. and commission to overhaul the alternator	No.	1		
HB 10.03.18		.16	Supply and replace including connection of a 125kVA alternator (Primary unit) and directly coupled ancillary system (eg. automatic voltage regulator and /or exciter unit), to match existing	No.	1		
HB 10.03.18		.17	Supply and replace including connection of a 130kVA alternator (Primary unit) and directly coupled ancillary system (eg. automatic voltage regulator and /or exciter unit), to match existing	No.	1		
HB 10.03.20		.18	Supply, install and commission the control panel including all new switch gear parts, such as circuit breakers, relays, bobbins, controllers, cables lugs glands, panel enclosure, emergence stop,12 Volt and 24 Volt LED emergency lights and run down timer switch.	No.	1		
HB 10.03.21		.19	Replace a complete 125kVA generator set with control panel and switch gear, (similar approved to match existing), which is complete and functional in every aspect and is of same performance rating as the unit it is intended to replace, and has a superior efficiency rating and has proven carbon emission and other exhaust gas properties which falls comfortably within the parameter limits currently accepted by local and international standard bodies in every aspect Note: Tendered rate to include, supply, installation, commissioning and providing a Certificate of Compliance (COC) of the complete installation Note: The standby generator set/unit will only be replaced if it is proven beyond doubt that its repair is Not economically viable See HB Specification	No.	1		
HB 10.03.21		.20	Replace a complete 130kVA generator set with control panel and switch gear, (similar approved to match existing), which is complete and functional in every aspect and is of same performance rating as the unit it is intended to replace, and has a superior efficiency rating and has proven carbon emission and other exhaust gas properties which falls comfortably within the parameter limits currently accepted by local and international standard bodies in every aspect Note: Tendered rate to include, supply, installation, commissioning and providing a Certificate of Compliance (COC) of the complete installation Note: The standby generator set/unit will only be replaced if it is proven beyond doubt that its repair is Not economically viable See HB Specification	No.	2		
	continue						
Carried forward							

SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS

ELECTRICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	continue					
	1003.01	.21 Commissioning of system and furnishing of a Certificate of Compliance of the Primary Alternator system	No.	1		
		.22 Supply, Install and Commision of a AMF 25 IL 4 Controller & Comms for generator set	No.	1		
	1004.00	**SUPPLY OF EMERGENCY DIESEL**				
		Provision of diesel over the three year period				
HB 10.03.08		.01 Supply of emergency diesel fuel over the three year period (Rate shall include all costs incl, delivery cost)	PC Sum	-	-	R 100 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R100 000.00	..... %	
	1007.00	**FUEL STEEL TANK**				
		.01 Dissembling, repairing, cleaning, painting, re-sealing, re-constructing and re-commissioning of existing Fuel Steel tanks	No.	5		
		.02 Supply, Installal and commission of a 3000 liter stainless steel tank on skis, 110mm inlet and 50 mm outlet. Complete with all feul pipe network	No.	2		
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A10: INSTALLATION E3.R: STANDBY POWER SYSTEMS						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB TENDERERS MUST COMPLETE THE SCHEDULE OF QUANTITIES IN BLACK INK

SUMMARY OF SCHEDULE OF QUANTITIES:MECHANICAL REPAIR WORK

	TOTAL SUMMARY
SCHEDULE No. A11: INSTALLATION M1.R: AIR-CONDITIONING SYSTEMS	R
SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT	R

TOTAL OF SCHEDULE OF QUANTITIES - MECHANICAL REPAIR WORK CARRIED TO CALCULATION OF TENDER SUM R

SIGNED ON BEHALF OF TENDERER:

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A11: INSTALLATION M1.R: AIR-CONDITIONING SYSTEMS

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
FD PFD	1100.00	**GENERAL**				
	1101.00	**AS-BUILT INFORMATION AND OPERATING AND MAINTENANCE MANUALS: BOESMANSNEK, RAMATSELISO AND ONGELUKSNEK LAND PORTS OF ENTRY**				
SB 05.01 FD 04		.01 Obtaining of all available information, compiling, reproducing and finalising three sets of "as-built" and Operating and Maintenance Manuals and handing over to the Engineer for approval	Sum	1		
FD 06	1102.00	**LOGGING AND RECORDING**				
		.01 HVAC Installations	Sum	1		
PFD 04.01	1103.00	**INSPECTION AND REPORT ON THE FOLLOWING ITEMS**				
PFD - 04.01.01(a)		.01 Split air-conditioning installation:				
		.01 Inspect and report on the condition of the unit for any defects, failures, etc.	No.	32		
PFD - 04.01.01(a)		.02 Wall mounted unit air-conditioning installation:				
		.01 Inspect and report on the condition of the unit for any defects, failures, etc.	No.	5		
Carried forward						

SCHEDULE No. A11: INSTALLATION M1.R: AIR-CONDITIONING SYSTEMS

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
	1104.00	**OPERATING AND MAINTENANCE MANUALS**				
		.01 Compile and supply a complete set of operating and maintenance manuals	Set	3		
PFD 05.01.01	**1105.00**	**SERVICE OF HVAC UNITS**				
		.01 **Midwall Split Type Air-Conditioning Units**				
		.01 Repair outdoor unit fins	No.	4		
		.02 Check settings and operation of all pressure switches and reset if necessary	No.	4		
		.03 Check settings and operation of thermostat	No.	5		
		.04 Repair refrigerant pipe insulation	m	3		
		.05 De-rust, neutralize and touch up paint	No.	5		
		.06 Replace filters	No.	4		
		.07 Carry out a leak test on refrigeration piping and components inclusive of evaporator and condenser	No.	3		
		.08 Clean evaporator and condenser fan blades and check unbalance	No.	3		
		.09 Supply and install condensate drain pipe (25mm diameter)	m	14		
		.10 Repair indoor air guide vents	No.	2		
		.11 Replace compressor vibration mountings	No.	3		
		.12 Supply Infrared Remote Controllers	No.	4		
Carried forward						

SCHEDULE No. A11: INSTALLATION M1.R: AIR-CONDITIONING SYSTEMS

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PFD 05.01.01	**1105.00**	.02 **Self-contained Air-conditioning Units**				
		.01 De-rust, neutralize and touch up paint	No.	6		
		.02 Supply and install condensate drain pipe (25mm diameter)	m	15		
		.03 Repair air guide vents	No.	6		
		.04 Repair controls	No.	6		
		.05 Replace compressor vibration mountings	No.	6		
		.06 Repair outdoor unit fins	No.	6		
		.07 Re-gasing of refrigerant	No.	6		
		.03 **Service of air-curtains**				
		.01 Repair or replace fan and fan motor	No.	1		
		.02 Repair mounting brackets and supports	No.	1		
		.03 Repair/replace controller	No.	1		
PFD 05.02.03	**1106.00**	**REPLACE AIR-CONDITIONING UNIT**				
		Note: All Rates below shall be inclusive of supply, installation, commisioning and Providing of a Certificate of Compliance (COC).				
		.01 **Midwall Split Type Air-conditioning Units**				
		.01 9000 btu, high wall split unit	No.	4		
		.02 12000 Btu high wall split unit	No.	3		
		.03 18000 Btu high wall split unit	No.	2		
		.04 24000 Btu high wall split unit	No.	1		
		.05 36000 Btu high wall split unit	No.	1		
		.02 **Self Contained Type Air-conditioning Units**				
		.01 9000btu, window unit	No.	2		
		.02 12000btu, window unit	No.	2		
		.03 **Air-curtains**				
		.01 Air-curtains (1500)	No.	1		
		Carried forward				

SCHEDULE No. A11: INSTALLATION M1.R: AIR-CONDITIONING SYSTEMS

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
FD PFD	1107.00	**Replace temperature control unit (remote)**	No.	5		
	1108.00	**Re-gass AC unit**	No.	5		
	1109.00	**Replace 25mm Thermaflex isolation**	m	15		
	1110.00	**REPLACE CONTROL (PC) Board:**				
		.01 High wall units	No.	3		
		.02 Window unit	No.	2		
FD PFD	1111.00	**REPLACE COMPRESSOR**				
		01. High wall units	No.	2		
		.02 Window Unit	No.	2		
FD PFD	1112.00	**REPLACE CAPACITOR**				
		.01 High wall units	No.	5		
		.02 Window Unit	No.	5		
FD PFD	1113.00	**Remove and re-install air-conditioner**	No.	3		
	1114.00	**EXTRACTOR FAN**				
		.01 Wall Fan, C/W outdoor louver sized to suite fan, all required accessories to ensure a fully functional installation and suitable electrical connection wiring (3m long) between isolator and fan terminals, tested, installed and commissioned in position as per specification. 150 x 150 - 35-40l/s @ 50Pa E.S.P	No.	5		
	1115.00	**DRIP TRAY**				
		.01 Installation of a complete Stainless Steel drip tray for Air-Conditioning units situated in Server Rooms. Tray to be complete with all drainage pipe network.	No.	3		
		TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A11: INSTALLATION M1.R: HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS				

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1200.00	**CONVENTIONAL FIREFIGHTING EQUIPMENT**				
PJC 06.01	1201.00	**GENERAL**				
	1201.01	**Logging and recording of operating conditions, maintenance visits, samples, inspections, surveys, tests etc: as per technical specification JC05**				
		.01 Conventional firefighting equipment	Sum	1		
PJC 03	1201.02	**Operating And Maintenance Manuals**				
		.01 Compile and supply a complete set of operating and maintenance manuals (3 copies required) for: Boesmansnek, Ramatseliso and Ongeluksnek Land Ports Of Entry	Set	3		
	1201.03	**Inspection and report on existing installations**				
		.01 Fire extinguisher	No.	110		
	1201.04	**Testing of fire protection system**				
		.01 Vessel pressure test on extinguishers and Water flow test on Fire hose reels/Hydrants	PC Sum			R 20 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R 20 000.00	..... %	
		Carried forward				

SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PJC.05	**1201.05**	**Labelling of all conventional firefighting equipment with identifying tags and recording of details:**				
		.01 Fire extinguishers	No.	11		
PJC 13	**1201.06**	**Signage for firefighting equipment**				
		.01 Photo luminescent Escape and Firefighting equipment signs installed complete with aluminium frame, mountings, brackets, etc.				
		.01 190mm x 190mm	No.	4		
		.02 190mm x 384mm	No.	1		
		.03 190mm x 578mm	No.	2		
		.02 Silk-screened Escape and Firefighting equipment signs installed complete with aluminium frame, mountings, brackets, etc.				
		.01 190mm x 190mm	No.	2		
		.02 190mm x 384mm	No.	3		
		.03 190mm x 578mm	No.	1		
		.03 Silk-screened Firefighting equipment signs installed behind backboards				
		.01 400mm x 666mm	No.	2		
	1202.00	**DETAILS OF REPAIR WORK TO EQUIPMENT**				
PJC 06.04	**1202.01**	**Supply and Installation of fire extinguisher equipment:**				
		.01 2kg CO_2 fire extinguisher	No.	1		
		.02 Supply and installation of DCP 9kg fire extinguishers	No.	2		
		.03 Supply and installation of DCP 4,5kg fire extinguishers	No.	2		
		.04 Supply and installation of DCP 1,5kg fire extinguishers	No.	1		
		Carried forward				

SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	1202.02	**Servicing, cleaning, recharging and repair of fire equipment:**				
		.01 Dry chemical powder (DCP) fire extinguisher:				
		.01 Replace 9kg fire extinguishers charge	No.	5		
		.02 Replace 4,5kg fire extinguishers charge	No.	1		
		.03 Replace 1,5kg fire extinguishers charge	No.	1		
		.04 Replace discharge hose and nozzle	No.	7		
		.05 Replace gauge and bottle	No.	2		
		.06 Check, service and repair activation mechanism	No.	5		
		.07 Recharge discharge mechanism	No.	5		
		.08 Replace instructions on fire extinguishers	No.	5		
		.09 Replace wall-mounting polished hardwood backboard and bracket	No.	2		
		.10 Repaint equipment	item	5		
	1202.03	.02 Carbon dioxide (CO_2) fire extinguisher:				
		.01 Replace 2kg fire extinguishers charge	No.	1		
		.02 Replace discharge hose and Nozzle	No.	1		
		.03 Replace gauge and bottle	No.	1		
		.04 Check, service and repair activation mechanism	No.	1		
		.05 Reseal discharge mechanism	No.	1		
		.06 Replace instructions on fire extinguishers	No.	1		
		.07 Compilation of a fire evacuation plan for buildings	No.	10		
PJC.08		.03 Servicing, cleaning and repair of fire hose reels:				
		.01 Replace 30 m hose	No.	5		
		.02 Shut-off valve	No.	5		
PJC.07		.04 Servicing, cleaning and repair of fire hydrants:				
		.01 80 mm dia. brass right angle hydrant valves	No.	7		
		.02 Replace quick coupling catches	No.	7		
		.03 Replace main hydrant seals	No.	7		
		.04 Repaint hydrant	No.	7		
		.05 Replace hose drum seal	No.	7		
		.06 Replace gland packing and gasket of shutoff valve with repair kit	No.	7		
		Carried forward				

SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL REPAIR WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
PJC.04	1202.04	**Supply and installation of fire hydrant equipment:**				
		.01 Fire hose cabinet large enough to hold four 30m coils of fire hose	No.	10		
		.02 Jet/spay branch pipes equivalent to AWG 1C	No.	10		
		.03 30m long, 64mm, percolating fire hose coils complete with quick couplings	No.	20		
		.04 Natural anodised fire hydrant keys with four sizes in one	No.	5		
		.05 80 mm dia fire hydrant complete with galvanised mild steel pipe wraped with denzo tape and in concrete encasement including brass hydrant valve with screwed inlet	No.	5		
		.06 Replace main hydrant seals	No.	10		
		.07 Repaint hydrant	No.	15		
PJC	1202.05	**FIRE DETECTION SYSTEM**				
		.01 Service ZP3 fire panel	No.	3		
		.02 Replace Surface mounted Call-Point Break Glass unit ZP785-3	No.	4		
		.03 Replace Annalogue Optical Smoke Sensor ZP730-2	No.	8		
		.04 Replace Annalogue Thermal (Ionization) Sensor ZP720-2	No.	6		
		.05 Replace fire alarm system siren with strobe light ZP755B-2	No.	5		
		.06 Replace fire sensor base ZP7-R81	No.	3		
		.07 Replace call point glasses	No.	4		
PJC PSA 8.9 PW 345	1202.06	**FIRE EQUIPMENT COMPLIANCE AUDIT**				
		Compliance Audit at Boesmansnek, Ramatselliso and Ongeluksnek Land Ports of Entry:				
		.01 Conduct Compliance Audit as Per PW 345 Standard Specification for Domestic and Fire Water Storage and Fire Water Supply for Public Buildings	PC Sum	-	-	R 250 000.00
		.02 Attendance and profit of item .01 above	%	R 250 000.00	..... %	
		.03 Repairs, Replacements and Corrections to the Fire Equipment Infrastructure as per Compliance Audit findings in item .01 above	PC Sum	-	-	R 500 000.00
		.04 Attendance and profit of item .03 above	%	R 500 000.00	..... %	
TOTAL - CARRIED TO REPAIR SUMMARY: SCHEDULE No. A12: INSTALLATION M2.R: CONVENTIONAL FIREFIGHTING EQUIPMENT						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK

SUMMARY OF BILL OF QUANTITIES: CIVIL MAINTENANCE AND OPERATIONAL WORK

		TOTAL SUMMARY
SCHEDULE No. B.1:	INSTALLATION C1.M: STRUCTURAL AND BUILDING	R
SCHEDULE No. B.2:	INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES	R
SCHEDULE No. B.3:	INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE	R
SCHEDULE No. B.4:	INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL	R
SCHEDULE No. B.5:	INSTALLATION C5.M: SEPTIC TANKS AND SEWER NETWORKS	R
SCHEDULE No. B.6:	INSTALLATION C6.M: ROADS AND STORM WATER DRAINAGE	R
TOTAL OF BILL OF QUANTITIES - CIVIL MAINTENANCE WORK - CARRIED TO CALCULATION OF TENDER SUM		R

.....
SIGNED ON BEHALF OF TENDERER:

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK

TOTAL SUMMARY

SUMMARY OF SCHEDULE OF QUANTITIES: ELECTRICAL MAINTENANCE WORK

SCHEDULE No. B.7:	INSTALLATION E1.M: BUILDING AND SITE ELECTRICAL	R _____
SCHEDULE No. B.8:	INSTALLATION E2.M: EXTERNAL LIGHTING INSTALLATION	R _____
SCHEDULE No. B.9:	INSTALLATION E3.M: STANDBY POWER SYSTEM	R _____
TOTAL OF BILL OF QUANTITIES -ELECTRICAL MAINTENANCE WORK - CARRIED TO CALCULATION OF TENDER SUM		R _____

SUMMARY OF SCHEDULE OF QUANTITIES: MECHANICAL MAINTENANCE WORK

SCHEDULE No. B.10:	INSTALLATION M1.M: HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS	R _____
SCHEDULE No. B.11:	INSTALLATION M2.M: CONVENTIONAL FIREFIGHTING EQUIPMENT	R _____
TOTAL OF BILL OF QUANTITIES - MECHANICAL MAINTENANCE WORK - CARRIED TO CALCULATION OF TENDER SUM		R _____

SIGNED ON BEHALF OF TENDERER:

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.1: INSTALLATION C1.M: STRUCTURAL AND BUILDING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1300.00	**MAINTENANCE OF STRUCTURAL AND BUILDING RELATED WORK**				
SA.01	1300.01	**Maintenance of a complete installation:** The Contractor shall attend to the following during daily inspections of all structural components and elements of buildings and facilities: Preventative maintenance work and minor corrections of all structural and building related facilities, including components and elements such as, but not limited to: • Doors (hinges, locksets, strike plates, indicator locks) • Windows (pegs, stays, etc.) • Pull handles • Glass putty • Fascia and barge boards • Roof cladding and sheeting • Cornices • Ceiling boards and jointing strips • Sealant • Skirtings, etc.				
		.01 Boesmansnek Land Port of Entry: Proper maintenance of Structural and Building related work of operational area, residential area. Maintenance is not limited to the above-mentioned	point	360		
		.02 Ramatselitso Land Port of Entry: Proper maintenance of Structural and Building related work of operational area, residential area. Maintenance is not limited to the above-mentioned	point	360		
		.03 Ongeluksnek Land Port of Entry: Proper maintenance of Structural and Building related work of operational area, residential area. Maintenance is not limited to the above-mentioned	point	360		
		Carried forward				

SCHEDULE No. B.1: INSTALLATION C1.M: STRUCTURAL AND BUILDING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
SA.01	**1300.02**	**Maintenance report** The Contractor shall compile and submit a monthly facilities inspection report, in which damaged structural components and elements of buildings and facilities ("damages") shall be listed and quantified, only if such components and elements could not be maintained or corrected at the time of inspections, due to the nature of the damage, or the need for replacement of such components and elements				
		.01 Boesmansnek Land Port of Entry: Comprehensive monthly facilities inspection report	point	360		
		.02 Ramatselitso Land Port of Entry: Comprehensive monthly facilities inspection report	point	360		
		.03 Ongeluksnek Land Port of Entry: Comprehensive monthly facilities inspection report	point	360		
		Breakdown maintenance: Repair of damages is remunerated for from the payment items, within the maximum allowable downtime:				
SA.03 **SA.04** **SA.05** **SA.06**	**1300.03**	**Payment reduction:**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
SA.01 **PS 5.1**	**1301.00**	**MAINTENANCE TOOLS AND EQUIPMENT** The Contractor shall carry out his inspections with the necessary tools and consumables required for on-the-spot maintenance and corrections of all structural elements and components. An updated asset register shall be provided:				
		.01 Boesmansnek Land Port of Entry: Designated lockable store room, tools/equipment and consumables for proper maintenance on-the-spot/on-site. Lockable cabinet with duplicate keys and updated register for port of entry	point	360		
		.02 Ramatselitso Land Port of Entry: Designated lockable store room, tools/equipment and consumables for proper maintenance on-the-spot/on-site. Lockable cabinet with duplicate keys and updated register for port of entry	point	360		
		.03 Ongeluksnek Land Port of Entry: Designated lockable store room, tools/equipment and consumables for proper maintenance on-the-spot/on-site. Lockable cabinet with duplicate keys and updated register for port of entry	point	360		
		Carried forward				

SCHEDULE No. B.1: INSTALLATION C1.M: STRUCTURAL AND BUILDING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
SA.01 PS 4	1302.00	**PROGRAMME OF THE WORKS (CONSTRUCTION PROGRAMME)** The Contractor shall compile and submit a complete and accurate Programme of the Works for Repair work and Maintenance work, 21 days after site handover and updated monthly which is linked to the expenditure and project cash flow				
		.01 Boesmansnek Land Port of Entry: Programme of the Works	point	360		
		.02 Ramatselitso Land Port of Entry: Programme of the Works	point	360		
		.03 Ongeluksnek Land Port of Entry: Programme of the Works	point	360		
		LATE SUBMISSION OF ACCEPTABLE PROGRAMME OF THE WORKS				
	1302.01	**Payment reduction:**				
SA.04 PS 4		.01 Boesmansnek Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Programme of the Works	days	-	-R 500.00	rate only
		.02 Ramatselitso Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Programme of the Works	days	-	-R 500.00	rate only
		.03 Ongeluksnek Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Programme of the Works	days	-	-R 500.00	rate only
SA 03 SA.04	1303.00	**MAINTENANCE CONTROL PLAN**				
		The Contractor shall compile and submit a complete and accurate monthly Maintenance Control Plan (see Additional Specification SA), which shall be utilised to log and record all faults, system checks, breakdowns and site inspections				
		.01 Boesmansnek Land Port of Entry: Maintenance Control Plan	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance Control Plan	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance Control Plan	point	360		
		Payment reduction for late submission of the Maintenance Control Plan:				
		LATE SUBMISSION OF ACCEPTABLE MAINTENANCE CONTROL PLAN				
	1303.01	**Payment Reduction**				
SA.04		.01 Boesmansnek Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Maintenance Control Plan	days	-	-R 500.00	rate only
		.02 Ramatselitso Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Maintenance Control Plan	days	-	-R 500.00	rate only
		.03 Ongeluksnek Land Port of Entry: Payment reduction due to late submission of an adequate/ acceptable Maintenance Control Plan	days	-	-R 500.00	rate only
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.1: INSTALLATION C1.M: STRUCTURAL AND BUILDING						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.2: INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1400.00	**MAINTENANCE OF PLUMBING, DRAINAGE, WET SERVICES AND SEWER NETWORKS AT OPERATIONAL AND RESIDENTIAL BUILDINGS**				
SA.01	1400.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance as per Technical Specification AA Plumbing and Drainage Installations: Table AA 10.02/1 - Rainwater Disposal System, Table AA 10.02/2 - Soil and Wastewater Drainage System, Table AA 10.02/3 - Domestic Water Distribution and Reticulation Systems, Table AA 10.02/4 - Sanitary and Brassware Equipment, shall consist of at least, but not limited to: • Checking, inspecting, cleaning, unblocking, re-adjusting, painting, fixing, repairing or replacing, inclusive of appurtenances of all drains and sewers including: – Pipes – Gutters – Catch pits – Channel drains – Floor outlets – Gullies – Manhole covers and frames – Brackets – Grease traps, oil separators, etc. – Plumbing				
	continue					
	Carried forward					

SCHEDULE No. B.2: INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	continue	The Contractor shall attend to preventative maintenance and breakdown maintenance as per Technical Specification AA Plumbing and Drainage Installations: Table AA 10.02/1 - Rainwater Disposal System, Table AA 10.02/2 - Soil and Wastewater Drainage System, Table AA 10.02/3 - Domestic Water Distribution and Reticulation Systems, Table AA 10.02/4 - Sanitary and Brassware Equipment, shall consist of at least, but not limited to: • Checking, inspecting, cleaning, unblocking, re-adjusting, painting, fixing, repairing or replacing, inclusive of appurtenances of all drains and sewers including: – Water distribution including: · Pipes · Isolation · Non-return valves · Control valves · Air-release valves · Other valves · Strainers • Water closets (WC): – Seats and covers – Cisterns – Sanitary ware mountings, etc. • Fixing of leaks and replacing of materials and components, etc:				
SA.01	**1400.01**	**Maintenance of a complete installation:**				
		.01 Boesmansnek Land Port of Entry: Maintenance work: Plumbing, drainage, wet services and drainage of operational and residential areas. Maintenance is not limited to the above-mentioned	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: Plumbing, drainage, wet services and drainage of operational and residential areas. Maintenance is not limited to the above-mentioned	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: Plumbing, drainage, wet services and drainage of operational and residential areas. Maintenance is not limited to the above-mentioned	point	360		
SA.03 **SA.04** **SA.05**	**1400.02**	**Payment reduction:** .01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
SA.06		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	Carried forward					

SCHEDULE No. B.2: INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SF.01	1401.00	**OPERATION OF A COMPLETE INSTALLATION:** Water demand management, data logging and recording, as per: Technical Specification KA Water Audit (KA.04.01). Comprising of: • Checking operation of water meters • Cleaning strainer units at water meters • Read water meters • Verification of sample meter readings • Updating of water demand database (spreadsheet) • Analysis of data and identification of water leaks • Adjust operation of pressure-reducing valves • Compilation of monthly water balance on volume and costs and issue of consumer accounts, etc:				
	1401.01	.01 Boesmansnek Land Port of Entry: Operation work: Operational area, residential area	point	360		
		.02 Ramatselitso Land Port of Entry: Operation work: Operational area, residential area	point	360		
		.03 Ongeluksnek Land Port of Entry: Operation work: Operational area, residential area	point	360		
		Payment reduction due to exceeding of maximum				
	1401.02	**Payment Reduction**				
SA.03		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
SA.04 SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.2: INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1500.00	**MAINTENANCE OF FENCING AND GATES**				
SA.01 SN 01	1500.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance, as per Technical Specification CC: Fencing and Gates, shall consist of at least, but not limited to: • Clearing 2.5 m wide of fence lines (both side) • Cleaning fire break areas • Inspection and repair of damages • Corrosion protection on fencing, gates and tubular posts • Inspection of fence for tightness to straining wire and redress or repair where required • Inspection of gate hinges and repair or replace if necessary, ensuring alignment of gates • Painting of previously painted posts, stays, gates, fences, etc. at:				
		.01 Boesmansnek Land Port of Entry: Maintenance work: Perimeter fence line, at operational area and at residential area. Maintenance is not limited to the above-mentioned	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: Perimeter fence line, at operational area and at residential area. Maintenance is not limited to the above-mentioned	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: Perimeter fence line, at operational area and at residential area. Maintenance is not limited to the above-mentioned	point	360		
	Carried forward					

SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SA.03 SA.04 SA.05 SA.06	1500.02	**Payment reduction:**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	1501.00	**MAINTENANCE OF SITE KEEPING INSTALLATION**				
SA.01 SN 01	1501.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance, as per Technical Specification CJ: Site Keeping and Cleaning (CJ.01.01 and CJ.04.02.01), shall consist of at least, but not limited to: • Cleaning out of and supply of black refuse bags to all waste bins in public areas • Watering of plants, shrubs, grass and trees upon strict instruction from the Engineer (in line with water restrictions) • Removal of weeds, clearing of weeds and grass along the edges of paved areas • Cutting of grass • Trimming of dense shrubs • Fertilisation of lawns, fertilisation of flower beds and trees • Removal of undesirable shrubs • Trimming of trees • Collecting of litter and foreign objects, removal of waste, etc. at: **Maintenance of a complete installation:**				
		.01 Boesmansnek Land Port of Entry: Maintenance work: All areas included within the perimeter fence of the port of entry which includes the operational area and the residential area as well as site keeping 20m around the outside of the perimeter fence line	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: All areas included within the perimeter fence of the port of entry which includes the operational area and the residential area as well as site keeping 20m around the outside of the perimeter fence line	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: All areas included within the perimeter fence of the port of entry which includes the operational area and the residential area as well as site keeping 20m around the outside of the perimeter fence line	point	360		
	Carried forward					

SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SA.03 SA.04 SA.05 SA.06	1501.02	**Payment reduction:** .01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	1502.00	**MAINTENANCE AND CLEANING OF BUILDINGS**				
SA.01 CJ 05 SN 01	1502.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance, as per Technical Specification CJ: Site Keeping and Cleaning (CJ.01.02 and CJ.01.03), shall consist of at least, but not limited to: • Dusting/wet wiping of counter tops • Dusting under counter shelves and floors in public areas and open plan offices (daily, before opening of port of entry) • Sweeping/washing and polishing office floors • Vacuum cleaning carpets • Emptying and cleaning of waste baskets in offices • Service and polishing fittings • Washing interior and exterior walls • Cleaning and maintaining ablution facilities in a sanitary condition • Emptying and cleaning of all waste receptacles • Cleaning of all bowls, basins and urinals • Cleaning and polishing of all fittings and mirrors • Washing and cleaning out of She-bins • Washing of windows • Dusting of window sills, ledges, pipes and fittings • Dusting of buildings interiors • Deep cleansing of toilets and ablution blocks every six months, etc. at: .01 Boesmansnek Land Port of Entry: Maintenance work: Operational buildings, ablution blocks, public areas, paving areas, concrete screeds, etc.	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: Operational buildings, ablution blocks, public areas, paving areas, concrete screeds, etc.	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: Operational buildings, ablution blocks, public areas, paving areas, concrete screeds, etc.	point	360		
	Carried forward					

SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SA.03 **SA.04** **SA.05** **SA.06**	**1502.02**	**Payment Reduction** .01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
BF 03 to 11	**1503.00**	**PEST CONTOL:** .01 Boesmansnek Land Port of Entry: Rodent control bait station stations including poison and information signage	No.	36		
		.02 Ramatselitso Land Port of Entry: Rodent control bait station stations including poison and information signage	No.	36		
		.03 Ongeluksnek Land Port of Entry: Rodent control bait station stations including poison and information signage	No.	36		
SA.03 **SA.04** **SA.05** **SA.06**	**1503.01**	**Payment Reduction** .01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.4: **INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS**

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1600.00	**MAINTENANCE OF BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS**				
SA.01	1600.01	**Maintenance of a complete Installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance as per Technical Specifications CE: Water Distribution Networks, DA: Borehole Pump Systems, and DL: Chlorination Systems for the Disinfection of Drinking Water, shall consist of at least, but not limited to: • **Routine checking, inspection, and repair** of leaks/replacement of corroded pipes • **Clean out all strainers** • **Fix and maintain all bracketing systems** • **Paint repairs to piping, fittings and** equipment • **Scour reservoirs and pipes to remove** silt and deposits, empty and clean bulk water reservoirs • **Check, test, service, re-adjust, repair or** replace all types of valves and vacuum breakers, inclusive of gaskets, gland packings, seals, etc The Contractor shall attend to preventative maintenance and breakdown maintenance as per Technical Specifications CE: Water Distribution Networks, DA: Borehole Pump Systems, and DL: Chlorination Systems for the Disinfection of Drinking Water, shall consist of at least, but not limited to: • **Check V-belts, MCC panels with level** sensing devices and electric motors where applicable • **Remove, inspect and service repair or** replace submersible pumps • **Service re-adjust and calibrate pressure** gauges and water meters • **Service, repair and clean chlorine dosing** apparatus from blockages • **Monthly visual inspection and report on** pressed steel water tanks • **Monthly check for and repair leaks** • **Bi-annually corrosion protection** • **Bi-annually clean and sterilise pressed** steel tanks, etc, etc				
	continue					
	Carried forward					

SCHEDULE No. B.4: INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	continue					
SA.01	**1600.01**	**Maintenance of a complete installation:**				
SA.01		.01 Boesmansnek Land Port of Entry: Maintenance work: Bulk water supply systems and external water networks	point	360		
SA.01		.02 Ramatselitso Land Port of Entry: Maintenance work: Bulk water supply systems and external water networks	point	360		
SA.01		.03 Ongeluksnek Land Port of Entry: Maintenance work: Bulk water supply systems and external water networks	point	360		
SA.03	**1600.02**	**Payment reduction:**				
SA.04						
SA.05		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
SA.06		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	1601.00	**OPERATING OF BULK WATER SUPPLY SYSTEM**				
SF.01 **DH.09.05**	**1601.01**	**Operating of installation:** Operation as per Technical Specification DH: Operation of Potable Water Works, DA: Borehole Pump Systems, and DL: Chlorination Systems for the Disinfection of Drinking Water, shall consist of at least, but not limited to: • Logging and recording of all pressure gauges, water meters, water level in reservoir, borehole water levels at start and stop of pump, amperes, volts and hour meter readings of borehole pumps (and calculate kW-hours) • Drafting of a water balance of the bulk water system (spread sheet based), as well as measuring and recording residual chlorine in the drinking water system at reservoir and furthest distribution point user • Recording of rainfall (date, precipitation and duration per event) • Checking integrity of power supply at MCC and verify correct switching of pumps * MCC: *Motor control centre*				
	continue	Operating of installations continued:				
	Carried forward					

SCHEDULE No. B.4: INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought forward					
	continue	Operating of installations continued: • Logging of all failures, malfunctions, spills, pollution events, power failures and detail of corrective measures implemented, ensuring correct borehole pump flow rate by adjusting control valve • Visual inspection daily, clean installation weekly, check dosing room weekly, check and repair leaks • Supply chemicals and make-up chlorine solution, ensuring the correct chlorine dosing rate and re-adjustment proportional to pump rate and on-site residual chlorine measurements, keeping facilities neat, controlling access to the site • Report in electronic format of: Turbidity (cloudiness or haziness) readings of raw and purified water, concentration of chemical solutions, percentage setting on dosing pumps, actual volume of chemicals consumed and monthly water analysis • Maintaining safety conditions on				
SF.01	**1601.01**	**Operating of installation:**				
		.01 Boesmansnek Land Port of Entry: Operating work: Bulk water supply systems and external networks	**point**	360		
		.02 Ramatselitso Land Port of Entry: Operating work: Bulk water supply systems and external networks	**point**	360		
		.03 Ongeluksnek Land Port of Entry:Operating work: Bulk water supply systems and external networks	**point**	360		
SA.03 **SA.04** **SA.05** **SA.06**	**1601.02**	**Payment Reduction**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	Carried forward					

SCHEDULE No. B.4: INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	1602.00	**POTABLE WATER QUALITY TESTING**				
EJ 05	**1602.01**	.01 **Boesmansnek Land Port Of Entry:**				
		.01 Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water delivered to the consumers for determinants specified in EJ04.07	No.	36		
		.02 Potable water quality tests to be performed by an approved SANAS laboratory on a regular basis on the water abstracted from boreholes for determinants specified in EJ04.07	No.	36		
EJ 05	**1602.02**	.02 **Ramatseliso Land Port Of Entry:**				
		.01 Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water delivered to the consumers for determinants specified in EJ04.07	No.	36		
		.02 Potable water quality tests to be performed by an approved SANAS laboratory on a regular basis on the water abstracted from boreholes for determinants specified in EJ04.07	No.	36		
EJ 05	**1602.03**	.03 **Ongeluksnek Land Port Of Entry:**				
		.01 Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water delivered to the consumers for determinants specified in EJ04.07	No.	36		
		.02 Potable water quality tests to be performed by an approved SANAS laboratory on a regular basis on the water abstracted from boreholes for determinants specified in EJ04.07	No.	36		
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.4: INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.5: INSTALLATION C5.M: SEPTIC TANKS AND SEWER NETWORKS

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1700.00	**MAINTENANCE OF SEPTIC TANKS AND SEWER NETWORKS:**				
SA.01	1700.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance as per Technical Specifications EG, which consist of, but not limited to: • Routine inspection of septic tanks • Inspection chambers covers and frames • Necessary cleaning and rodding • Unblocking of the sewer network • Repair of manhole benching • Fixing of leaks • Removal of invasive plants, trees and bushes around septic tanks, ect. at:				
		.01 Boesmansnek Land Port of Entry: Maintenance work: Septic tanks and sewer networks	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: Septic tanks and sewer networks	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: Septic tanks and sewer networks	point	360		
SA.03 SA.04 SA.05 SA.06	1700.02	**Payment Reduction**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	Carried forward					

SCHEDULE No. B.5: INSTALLATION C5.M: SEPTIC TANKS AND SEWER NETWORKS

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	1701.00	**SEPTIC TANKS**				
SF.01 EG 01 EG 06	**1701.01**	**Desludge septic tanks:** The Contractor shall attend to preventative maintenance, which consist of, but not limited to: • Check and log scum, water and sludge depths in septic tank. If sludge depth exceeds 50% of tank depth, desludge the tank. Desludge tank at least once per year. Inspection is monthly and recorded • Dispose the sludge at the nearest Wastewater treatment Works. Contractor pay all fees and charges. A certificate and proof of disposing sludge at Wastewater Works must be provided for record purposes • Monitor pollution risk of septic tanks close to borehole, etc. at:				
		.01 Boesmansnek Land Port of Entry: Septic tanks: Check, desludge, cleaning out and dispose of contents off-site. Fill septic tank with water just above inlet pipe (T-piece)	point	60		
		.02 Ramatselitso Land Port of Entry: Septic tanks: Check, desludge, cleaning out and dispose of contents off-site. Fill septic tank with water just above inlet pipe (T-piece)	point	60		
		.03 Ongeluksnek Land Port of Entry: Septic tanks: Check, desludge, cleaning out and dispose of contents off-site. Fill septic tank with water just above inlet pipe (T-piece)	point	60		
	1701.02	**Payment reduction:**				
SA.03		.01 Payment reduction due to exceeding of maximum allowable sludge build-up in septic tanks	day	-	-R 2 000.00	rate only
	1702.00	**SLUDGE DISPOSAL**				
EG 07.01		.01 Pumping out of septic tank sludge into a suitable waste containment vehicle for transportation on the instruction of the Engineer/Department's representatives	m^3	150		
EG 07.01		.02 Disposal of septic tank sludge at a certified and approved Municipal Wastewater Treatment Works and submitting a certificate to detail and verify the safe disposal 100 km away	$m^3.km$	800		
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.5: INSTALLATION C5.M: SEPTIC TANKS AND SEWER NETWORKS						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.6: INSTALLATION C6.M: ROADS AND STORM WATER DRAINAGE

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1800.00	**MAINTENANCE OF ROADS AND STORM WATER DRAINAGE**				
SA.01	1800.01	**Maintenance of a complete installation:** The Contractor shall attend to preventative maintenance and breakdown maintenance, as per Technical Specification CA and CB: Roads, and shall consist of at least, but not limited to: • **Routine inspection of roads, gravel** shoulders, pavements, road signs and road markings • **Blading all gravel roads and parking** areas • **Removing loose material from road** surfaces and the surface of parking areas by means of mechanical brooming • **Repair of all surfaces, road pavements,** kerbs, road markings and signs, as well as: Technical Specification CB: Storm water drainage, shall consist of at least, but not limited to: • **Inspection, cleaning, unblocking and** repair of all storm water infrastructure components such as: – **Culverts** – **Drains** – **Manholes** – **Inlet covers** – **Inlet benching, grids and frames,** etc. at: *continue*				
		Carried forward				

SCHEDULE No. B.6: INSTALLATION C6.M: ROADS AND STORM WATER DRAINAGE

CIVIL MAINTENACE WORK

PAYMENT REFERS TO	ITEM No.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	continue					
	1800.01	**Maintenance of a complete installation:**				
		.01 Boesmansnek Land Port of Entry: Maintenance work: Roads and storm water drainage at Operational area and Residential area	point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance work: Roads and storm water drainage at Operational area and Residential area	point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance work: Roads and storm water drainage at Operational area and Residential area	point	360		
SA.03	**1800.02**	**Payment Reduction**				
SA.04						
SA.05		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
SA.06		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/016AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.7: INSTALLATION E1.M: BUILDING AND SITE ELECTRICAL

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	1900.00	**MAINTENANCE OF BUILDING AND SITE ELECTRICAL**				
SA.01	1900.01	**Maintenance Of a Complete Installation:**				
SA 02.10.01 - 10.03 & AB 11		Scheduled and non-scheduled preventative maintenance and breakdown maintenance of the complete electrical installation by a competent person as per Technical Specification AB: Building Electrical Installations (AB.11 Maintenance of the Installation) comprising inter alia: (1) checking operation, servicing, testing and measuring, repair or replacement of all (a) lamps and luminaires and lamp holders, (b) switching elements devices, (c) meters and metering equipment, (d) protective and monitoring devices, (e) earthing, bonding and lightning protection, (f) switch socket outlets, (g) distribution boards, (h) isolators and , light switches, lamp holders and (i) control devices, (j) cables, overhead mains (k) appliances, (l) wiring of all equipment and appliances; (2) measuring, logging and recording of phase voltages and currents and kWh energy usage of all buildings and installations, separately; (3) drafting and updating keep of all new and existing electrical system diagrams, cable route plans, including schematic diagrams, operational instructions; (4) engraved or embossed labelling of all distribution boards, electrical equipment, cables and wiring, lighting poles, with the required information, and such similar information,including engraved labelling on face plates or bodies of light switches, socket outlets and isolators and legend cards showing all the equipment inside distribution kiosks/boxes/boards; (5) witnessed testing of all earth leakage protection units on all socket outlet units, at the following installations:				
	Carried forward					

SCHEDULE No. B.7: INSTALLATION E1.M: BUILDING AND SITE ELECTRICAL

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	1900.01	**01. Operational Area (items below is not limited to):** - Buildings and structures - Earthing and bonding - Distribution boards - Main switches (DP IS) - Earth leakage protection - Lightning protection & L/A Fuses in DBs - 3 phase contactors(20 - 100A) & Timer switches - 3 phase circuit breakers - Single phase circuit breakers - Power skirting(m) - Switch socket outlets (16A) - Isolating switches - Uninterruptable power supplies (UPS) - Hand dryers - Air-conditioners - Geysers and instant water heaters - Stoves - Light switches - Light fittings - Photocell switches - Standby power sets - Mains failure panel complete - Extractor fans - Including all the low voltage underground cable, poles, stays and stay wires and overhead mains, interior and exterior wiring of buildings.				
		.01 Boesmansnek Land Port of Entry: Maintenance of Building and Site Electrical: Operational Area	Point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance of Building and Site Electrical: Operational Area	Point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance of Building and Site Electrical: Operational Area	Point	360		
		The maintenance scope is described in Technical Specifications: AB				
	Carried forward					

SCHEDULE No. B.7: INSTALLATION E1.M: BUILDING AND SITE ELECTRICAL

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	1900.01	**02. Housing Area (items below is not limited to):** - Buildings and structures - Earthing and bonding - Distribution boards - Main switches (DP IS) - Earth leakage protection - Lightning protection & L/A Fuses in DBs - 3 phase contactors(20 - 100A) & Timer switches - 3 phase circuit breakers - Single phase circuit breakers - Power skirting - Switch socket outlets (16A) - Isolating switches - Uninterruptable power supplies (UPS) - Hand dryers - Air-conditioners - Geysers and Instant water heaters - Stoves - Light switches - Light fittings - Photocell switches - Standby power sets - Mains failure panel complete - Extractor fans - Including all the low voltage underground cable, poles, stays and stay wires and overhead mains, interior and exterior wiring of buildings.				
		.01 Boesmansnek Land Port of Entry: Maintenance of Building and Site Electrical: Housing Area	Point	360		
		.02 Ramatselitso Land Port of Entry: Maintenance of Building and Site Electrical: Housing Area	Point	360		
		.03 Ongeluksnek Land Port of Entry: Maintenance of Building and Site Electrical: Housing Area	Point	360		
		The maintenance scope is described in Technical Specifications: AB				
SA.03 **SA.04** **SA.05** **SA.06**	**1901.00**	**Payment Reduction**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
SA.07		.05 Call-out for repair of Emergency Breakdown (24 hours) response	No.	9		
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.7: INSTALLATION E1.M: BUILDING AND SITE ELECTRICAL						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.8: INSTALLATION E2.M: EXTERNAL LIGHTING INSTALLATION

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	2000.00	**MAINTENANCE OF EXTERNAL LIGHTING**				
SA.01	2000.01	**Maintenance Of A Completed Installation**				
SA 02.10.01 - 10.03		Scheduled and unscheduled preventative maintenance and breakdown maintenance by a competent person, as per Technical Specification HE: Exterior Lighting Systems, comprising at least: .01 Verify operation of switching elements and all internal components of the luminaires and replace non functional items, .02 check and inspect and where necessary replace deteriorated luminaires, internal components and lamps, .03 ensure steel poles connection box cover plates are weather proof, seal in good condition, ensure that all pole covers are secure, .04 ensure proper earthing of all steel lighting poles, scissor masts at all times, maintain earth connection at footing, record values annually. .05 apply vermin proofing, .06 inspect and service junction boxes, circuit breakers, wiring and connections and ensure correct phase voltages and currents .07 Ensure that all lighting poles, scissor and high masts are straight, at Pafuri's external lighting installations comprising: .001 Fibre glass security light poles, internal junction boxes and luminaires .002 Post top street lights mounted on fibre glass poles internal junction box and luminaires				
	Carried forward					

SCHEDULE No. B.8: INSTALLATION E2.M: EXTERNAL LIGHTING INSTALLATION

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SA.01	**2000.01**	**Maintenance Of A Completed Installation**				
HA.12		.01 Boesmansnek Land Port of Entry: External Lighting Installation	Point	360		
		.02 Ramatselitso Land Port of Entry: External Lighting Installation	Point	360		
		.03 Ongeluksnek Land Port of Entry: External Lighting Installation	Point	360		
		The maintenance scope is described in technical specifications: HA, HE				
SA.03	**2002.00**	**Payment Reduction**				
SA.04						
SA.05		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
SA.06		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
SA.07		.05 Call-out for repair of Emergency Breakdown (24 hours) response	No.	9		
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.8: INSTALLATION E2.M: EXTERNAL LIGHTING INSTALLATION						

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.9: INSTALLATION E3.M: STANDBY POWER SYSTEM

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	2100.00	**MAINTENANCE OF STANDBY POWER SYSTEMS**				
SA.01	2101.00	**MAINTENANCE OF A COMPLETED INSTALLATION** Scheduled and unscheduled preventative maintenance and breakdown maintenance, as per Technical Specification HB: Standby Power Systems, comprising at least of: Checking, recording and resetting as necessary of oil level; oil viscosity for dilution by water or fuel; starter battery terminals and apply contact grease; battery cables for damage and secure terminations; battery electrolyte; battery voltage, battery voltage drop during engine cranking; battery charger operation after cranking test; starter motor for abnormal noise; diesel engine while running for noise, vibration or loose components; flexible hoses for leaks, corrosion and ageing; engine V-belts; engine alternator coupling for noise; alternator for accumulation of dust on the regulator and for any loose components, as well as testing on load for recording of volt, ampere and frequency readings, recording running hours, diesel consumption, and verification of all alarm functions, i.e. low oil pressure, high engine temperature, low engine coolant level, abnormal speed, synchronising failure, cooling water pump failure, cooling tower fan failure, low battery voltage, low fuel day tank, fuel pump failure and low fuel bulk tank, and all work necessary to rectify malfunction. See Below Current Site Specific Information, maintenace to continue on any replacement units when replaced under repair See Technical Specification HB				
		.01 Boesmansnek Land Port of Entry: Standby Power System	Point	360		
		.02 Ramatselitso Land Port of Entry: Standby Power System	Point	360		
		.03 Ongeluksnek Land Port of Entry: Standby Power System	Point	360		
	Carried forward					

SCHEDULE No. B.9: INSTALLATION E3.M: STANDBY POWER SYSTEM

ELECTRICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
Technical Specification HB	2102.00	**BOESMANSNEK LAND PORT OF ENTRY: MANDATORY PERIODICAL SERVICES NOT INCLUDED IN PREVENTATIVE MAINTENANCE ITEMS LISTED ABOVE**				
HB 10.03.01		.01 Clean and repair genset plant room	No.	1		
HB 10.03.02 & .03		.02 Service 1 of. X 125kVA Complete Genset (Diesel Engine and Alternator) Note: Service schedule annually or running hours, which ever comers first. All Service intervals and requirements as per manufactures specification	No.	9		
HB 10.03.08		.03 Supply and deliver of diesel fuel	Litre	47536		
		.04 Flow Meters	No.	3		
HB 10.03.05		.05 Dummy Load Test	No.	3		
HB 10.03.12		.06 Fuel water separator	No.	3		
Technical Specification HB	2103.00	**RAMATSELITSO LAND PORT OF ENTRY: MANDATORY PERIODICAL SERVICES NOT INCLUDED IN PREVENTATIVE MAINTENANCE ITEMS LISTED ABOVE** Note: As per specifications, Border operates on constant stanby power generation (24/365)				
HB 10.03.01		.01 Clean and repair genset plant room	No.	1		
HB 10.03.02 & .03		.02 Service 2 of. X 130kVA Complete Genset (Diesel Engine and Alternator) Note: Service schedule annually or running hours, which ever comers first. All Service Intervals and requirements as per manufactures specification	No.	72		
HB 10.03.08		.03 Supply and deliver of diesel fuel	Litre	263000		
		.04 Flow Meters	No.	3		
HB 10.03.05		.05 Dummy Load Test	No.	3		
HB 10.03.12		.06 Fuel water separator	No.	3		
Technical Specification HB	2104.00	**ONGELUKSNEK LAND PORT OF ENTRY: MANDATORY PERIODICAL SERVICES NOT INCLUDED IN PREVENTATIVE MAINTENANCE ITEMS LISTED ABOVE** Note: As per specifications, Border operates on constant stanby power generation (24/365)				
HB 10.03.01		.01 Clean and repair genset plant room	No.	1		
HB 10.03.02 & .03		.02 Service 2 of. X 130kVA Complete Genset (Diesel Engine and Alternator) Note: Service schedule annually or running hours, which ever comers first. All Service intervals and requirements as per manufactures specification	No.	72		
HB 10.03.08		.03 Supply and deliver of diesel fuel	Litre	263000		
		.04 Flow Meters	No.	3		
HB 10.03.05		.05 Dummy Load Test	No.	3		
HB 10.03.12		.06 Fuel water separator	No.	3		
	Carried forward					

SCHEDULE No. B.9: INSTALLATION E3.M: STANDBY POWER SYSTEM — **ELECTRICAL MAINTENANCE WORK**

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
	2 105.00	**CONTINGENCY ALLOWANCE FOR MOBILE RENTAL UNIT (SIMILAR TO EXISTING 130KVA UNIT:) DURING EMERGENCY REPAIRS**				
		.01 Mobile Rental Unit	PC Sum	-	-	R 100 000.00
		.02 Charge required by Contractor on sub item .01 above	%	R100 000.00	..... %	
SA.03 **SA.04** **SA.05** **SA.06**	**2106.00**	**Payment Reduction**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
SA.07	**2107.00**	**Call-out for repair of Emergency Breakdown:** .01 Call-out for repair of Emergency Breakdown (24 hours) response	No.	9		
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.9: INSTALLATION E3.M: STANDBY POWER SYSTEM						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.10: INSTALLATION M1.M: HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS

MECHANICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	2200.00	**MAINTENANCE OF HEATING, VENTILATION AND AIRCONDITIONING**				
SA.01	2201.00	**MAINTENANCE OF A COMPLETE INSTALLATION** Scheduled and unscheduled maintenance and breakdown maintenance, as per Technical Specification FD: Heating, Ventilation and Air conditioning Systems and Particular Specification PFD: Heating, Ventilation and Air Conditioning Systems, comprising inspection of air intake and discharge for blockages, cleaning of filters and replacement when required, checking all refrigerant, drainage pipes for damages and leaks, inspection of condenser coil for blockages and ensuring correct operation of fans, inspection of sight glass and clearing or flashing of gas, inspection of evaporator coil for blockages and correct operation of supply fan, checking enclosure for damage, electric motor running temperatures, electric connections for tightness, thermostat and control operation, cleaning of condensate tray and ensuring proper operation of drain system, as well as maintaining cooling and heating cycle, etc. (maintenance is not limited to above-mentioned) at:				
		.01 Boesmansnek Land Port of Entry: Heating, Ventilation and Air-conditioning	Point	360		
		.02 Ramatselitso Land Port of Entry: Heating, Ventilation and Air-conditioning	Point	360		
		.03 Ongeluksnek Land Port of Entry: Heating, Ventilation and Air-conditioning	Point	360		
		The maintenance scope is described in technical specifications FD, PFD				
Carried forward						

SCHEDULE No. B.10: INSTALLATION M1.M: HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS

MECHANICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
Brought forward						
SA.03 SA.04 SA.05 SA.06	2202.00	**Payment Reduction**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
	2203.00	**MANDATORY PERIODICAL SERVICES NOT INCLUDED IN PREVENTATIVE MAINTENANCE ITEMS LISTED ABOVE**				
	2203.01	**Boesmansnek Land Port of Entry:**				
PFD 05.01.01		.01 Provide full service of Air-conditioning Units according to manufacturer's specifications (Bi-Annually)	PC-Sum	-	R 35 000.00	R 35 000.00
SA 06.05		.02 Charge required by Contractor on sub item .01 above	%	R35 000.00	..... %	
	2203.02	**Ramatselitso Land Port of Entry:**				
PFD 05.01.01		.01 Provide full service of Air-conditioning Units according to manufacturer's specifications (Bi-Annually)	PC-Sum	-	R 35 000.00	R 35 000.00
SA 06.05		.02 Charge required by Contractor on sub item .01 above	%	R35 000.00	..... %	
	2203.03	**Ongeluksnek Land Port of Entry:**				
PFD 05.01.01		.01 Provide full service of Air-conditioning Units according to manufacturer's specifications (Bi-Annually)	PC-Sum	-	R 35 000.00	R 35 000.00
SA 06.05		.02 Charge required by Contractor on sub item .01 above	%	R35 000.00	..... %	
TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.10: INSTALLATION M1.M: HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS						

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

TENDER NO: H24/015AI

WCS 056390

BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BILL OF QUANTITIES

NB **TENDERERS MUST COMPLETE THE BILL OF QUANTITIES IN BLACK INK**

SCHEDULE No. B.11: INSTALLATION M2.M: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	2300.00	**MAINTENANCE OF CONVENTIONAL FIREFIGHTING EQUIPMENT**				
SA.01	2301.00	**Maintenance of a completed installation** Scheduled and unscheduled maintenance and breakdown maintenance, as per Technical Specification JC: Conventional Firefighting Equipment and Particular Specification PJC: Conventional Fire Fighting Equipment and Particular Specification PJC: Conventional Fire Fighting Equipment, comprising (i) maintenance related to fire hose reels, including routine inspections of drain seal, rolled down hose for cracks or perishing, checking operation of PWD type nozzle, fire hose reel valve, pressure and flow rate of fire hose reel and piping for leaks or damage, and lubrication of moving parts of hose reel drum, (ii) maintenance of related fire extinguishers, including routine inspection of background mounting and bracket, checking condition of the charge and discharge, checking the discharge hose mechanism, and replace powder/foam/CO_2 at prescribed intervals, repair and replacement of all parts, and logging and recording of the maintenance schedule for all types of firefighting equipment, (maintenance is not limited to the above-mentioned) at:				
		.01 Boesmansnek Land Port of Entry: Fire-Fighting Equipment, Fire Detection System	Point	360		
		.02 Ramatselitso Land Port of Entry: Fire-Fighting Equipment, Fire Detection System	Point	360		
		.03 Ongeluksnek Land Port of Entry: Fire-Fighting Equipment, Fire Detection System	Point	360		
		The maintenance scope is described in technical specifications: JC, PJC, IG				
Carried forward						

SCHEDULE No. B.11: INSTALLATION M2.M: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	Brought forward					
SA.03 SA.04 SA.05 SA.06	2302.00	**Payment reduction:**				
		.01 Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	Hour	-	-R 1 000.00	rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Day	-	-R 2 000.00	rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Day	-	-R 500.00	rate only
		.04 Payment reduction due to exceeding of maximum down-time during malicious damage repair	Day	-	-R 500.00	rate only
SA.07		.05 Call-out for repair of Emergency Breakdown (24 hours) response	No.	9		
	2303.00	**MANDATORY PERIODICAL SERVICING AND CLEANING NOT INCLUDED IN PREVENTATIVE MAINTENANCE ITEMS LISTED ABOVE**				
	2303.01	**BOESMANSNEK LAND PORT OF ENTRY:**				
PJC.09		.01 Statutory annual servicing of 4.5kg DCP fire extinguishers, approximately nineteen (19) units but not limited to	No.	57		
PJC.09		.02 Statutory annual servicing of 9kg DCP fire extinguishers, approximately twenty-seven (27) units but not limited to	No.	81		
PJC.09		.03 Statutory annual servicing of 5kg CO_2 fire extinguishers, approximately six (6) units but not limited to	No.	18		
PJC.04		.04 Annual Firefighting Training	No.	3		
	2303.02	**RAMATSELITSO LAND PORT OF ENTRY**				
PJC.09		.01 Statutory annual servicing of 4.5kg DCP fire extinguishers, approximately three (3) units but not limited to	No.	9		
PJC.09		.02 Statutory annual servicing of 9kg DCP fire extinguishers, approximately nineteen (19) units but not limited to	No.	57		
PJC.09		.03 Statutory annual servicing of 5kg CO_2 fire extinguishers, approximately two (2) units but not limited to	No.	6		
PJC.04		.04 Annual Firefighting Training	No.	3		
	Carried forward					

SCHEDULE No. B.11: INSTALLATION M2.M: CONVENTIONAL FIREFIGHTING EQUIPMENT

MECHANICAL MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	2303.03	**ONGELUKSNEK LAND PORT OF ENTRY:**				
PJC.09		.01 Statutory annual servicing of 2kg DCP fire extinguishers, approximately five (5) units but not limited to	No.	15		
PJC.09		.02 Statutory annual servicing of 9kg DCP fire extinguishers, approximately twenty-four (24) units but not limited to	No.	72		
PJC.09		.03 Statutory annual servicing of 5kg CO_2 fire extinguishers, approximately five (5) units but not limited to	No.	15		
PJC.04		.04 Annual Firefighting Training	No.	3		
		TOTAL - CARRIED TO MAINTENANCE SUMMARY: SCHEDULE No. B.11: INSTALLATION M2.M: CONVENTIONAL FIREFIGHTING EQUIPMENT				

PART C3: SCOPE OF WORK

PG-01.1 (EC) SCOPE OF WORKS – GCC 3rd Edition (2015)

Project title:	***BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender no:	*H24/015AI*	**Reference no:**	*H24/015AI*

C3. Scope of Works

CONTENTS

C3.1 STANDARD SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

A: GENERAL

PS 1 GENERAL DESCRIPTION
PS 2 DESCRIPTION OF SITE AND ACCESS
PS 3 DETAILS OF CONTRACT
PS 4 CONSTRUCTION PROGRAMME
PS 5 SITE FACILITIES AVAILABLE
PS 6 SITE FACILITIES REQUIRED FOR THE ENGINEER
PS 7 FEATURES REQUIRING SPECIAL ATTENTION
PS 8 CERTIFICATES OF PAYMENT
PS 9 CONSTRUCTION IN RESTRICTED AREAS
PS 10 DRAWINGS
PS 11 LEGISLATION
PS 12 INSURANCE AMOUNTS
PS 13 TIMES FOR COMPLETION
PS 14 PRACTICAL COMPLETION
PS 15 PENALTIES
PS 16 NON-WORKING DAYS AND HOURS

NOTE: This is an example only. Compiler / Designer to provide the applicable contents.

B: AMENDMENTS TO THE PARTICULAR SPECIFICATIONS

AA Plumbing and drainage Installations
AB Building electrical installations
BA Roof coverings
BB Carpentry joinery for roofs and ceilings
BC Waterproofing of concrete roofs
BD Walls
BE Floors
BF Pest Control
BH Fittings

BJ	Paintwork
BK	Structural Concrete
CA	Roads
CB	Stormwater drainage
CC	Fencing and gates
CE	Water distribution networks
CF	Sewerage networks
CG	Solid waste management
CI	Pressed Steel Tanks
CJ	Site keeping and cleaning
DA	Borehole pump systems
DB	Borehole drilling and equipment
DC	Borehole siting and drilling
DF	Potable water disinfection and sedimentation units
DH	Operation of potable water works
DL	Chlorination systems for the disinfection of drinking water at remote borehole installations
DW	Water supply
EG	Septic tank and conservancy tanks and disposal fields
EJ	Water quality testing
FD	Heating ventilation and air-conditioning systems
HB	Standby power systems
HC	Low voltage reticulation
HD	Transformers
HE	Exterior lighting installations
JC	Conventional fire-fighting equipment
KA	Water audit

C3.3 PARTICULAR SPECIFICATIONS

PAA	Plumbing and Drainage Installations
PBF	Pest Control
PFD	Heating Ventilation and Air-Conditioning Systems
PJC	Conventional Fire Fighting Equipment

C3.4 STANDARD SPECIFICATIONS:

The standard specifications on which this contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200.** *(Note to compiler. "SABS" has been changed to "SANS"; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 2100)*

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

SA	General Maintenance
SB	Operating and Maintenance Manuals
SC	General Decommissioning, Testing and Commissioning Procedures
SD	General Training
SF	General Operation
SH	HIV / AIDS Requirements
SI	Occupational Health and Safety
SJ	Covid-19 Compliance
SN	implementation of Labour-intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)

A - 1986 - GENERAL / D – (etc, to be provide by compiler)

- SANS 1200 Standardised Specifications for Civil Engineering Construction*
- SANS Standard Specifications*
- PW 371- A & B -Specification of Materials and Methods to be used. Fourth revision, October 1993.**
- Guide for architects concerning drainage, water supply and stormwater drainage**
- PW343- Building specifications for Regional Offices**
- Standard Specification for the Electrical Installations and Equipment pertaining to Mechanical Services**
- Standard Electrical Specifications, January 1984, GPS 24-0367**
- SANS 10400 The application of the National Building Regulations*
- Department of Public Works - Standard Electrical Specifications**
- Standard Specification for Air Conditioning and Ventilation Installations – issue XI, 1998.
- Standard Specification for Refrigeration Services – Issue VIII, 1998
- FPO/G61/3E Guide for Architects**
- Department of Water Affairs - Green Drop & Blue Drop Requirements (Version 1.0 - 2010)***
- Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under Expanded Public Works Programme**
- * Not issued with this document, but available at the Contractor's expense from the SA Bureau of Standards, Private Bag X191, PRETORIA, 0001.
- ** Not issued with this document but available from the Director General, Department of Public Works, Private Bag X65, PRETORIA 0001, or any office of the Regional Representative of this Department.
- *** Not issued with this document but available from the Department of Water Affairs (www.dwa.gov.za).

3.5 PROJECT SPECIFICATIONS:

Status

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part1 A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardised of Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

3.5.1 GENERAL

PS-1 PROJECT DESCRIPTION:

Each installation requires work that may include any one or more of the activities as set out in below, i.e. decommissioning, repair, reconditioning, testing, re-commissioning during the Contract period. The consultants and the contractor will compile a set of operating and maintenance manuals. The work also includes compilation/updating of operating and maintenance manuals as well as training of User Department operators and all maintenance personnel.

NOTE: Repair work will be carried out within facilities that are occupied by User Department's personnel and associates.

PS 1 GENERAL DESCRIPTION

Each installation requires work that may include any one or more of the activities as set out in below, i.e. decommissioning, repair, reconditioning, testing, re-commissioning during the Contract period. The consultants and the contractor will compile a set of operating and maintenance manuals. The work also includes compilation/updating of operating and maintenance manuals as well as training of User Department operators and all maintenance personnel.

NOTE: Repair work **will** be carried out **within** facilities that are occupied by User Department's personnel and associates.

PS 2 DESCRIPTION OF SITE AND ACCESS

Boesmansnek Land Port of Entry is the property of the Department of Public Works and Infrastructure, and is situated in Kwazulu-Natal Province.

The GPS coordinate is 29°50'37.72"S, 29°12'42.46"E

Ramatseliso Land Port of Entry is the property of the Department of Public Works and Infrastructure, and is situated in Eastern Cape Province.

The GPS coordinate is 30° 3'2.24"S, 28°55'59.72"E

Ongeluksnek Land Port of Entry is the property of the Department of Public Works and Infrastructure, and is situated in Eastern Cape Province.

The GPS coordinate is 30°20'35.08"S, 28°18'40.15"E

Maps of all the site is part of the drawings.

The Contractor will be granted access to all the installations at the date of Site Handover. Access will also be given to completed installations that were kept in a working condition during a previous similar Contract.

PS 3 DETAILS OF CONTRACT

All work forming part of this Contract is divided into installations. The repair and maintenance work to be performed as part of an installation under this Contract mainly consists of the following:

a. The various installations at the Ports of Entry form part of an existing Repair and Maintenance Programme. As such the various installations were repaired and maintained under the contract and are in perfect working order which places the emphasis of this contract on maintenance.

b. No distinction will be made between prior to practical completion and completed installations for the purpose of maintenance.

c. The Contractor will have the opportunity at the start of the contract to point out items which are not in perfect working order which in turn will be repaired as per the relevant tendered repair rates.

d. The Contractor will further more at the start of the contract perform annual maintenance on all the installations as per the items listed in the different Technical and Particular Specifications as part of the Contractor's maintenance obligation.

e. Maintenance of each of these installations will be the responsibility of the Contractor and will be evaluated on a monthly basis by the Engineer. The remuneration for maintenance work and responsibilities will be certified accordingly.

The Contractor will have the opportunity at the start of the contract to point out items which are not in a in a perfect working order by means of an Assessment and Verification report. Typically, the following installation, but not limited to, shall be assessed:

- Structural and buildings related works
- Plumbing, drainage and wet services
- Fencing, cleaning and site keeping
- Bulk water and external water networks
- Septic tanks and sewer networks
- Roads and storm water drainage
- Building electrical

- External lighting
- Standby power generators
- Heating, ventilation and air-conditioning systems
- Conventional fire-fighting equipment, etc.

These items will be serviced and repaired as per the relevant tendered repair rates. The detail Assessment and Verification report shall provide an overview of problem areas at the beginning of the contract period, just after site handover. This shall include the testing of all equipment (pumps, etc.) as well as all civil, electrical and mechanical services. The detail Assessment and Verification report shall include photos (presented as a photo report) with a description and orientation/location of problem areas. The final detail Assessment and Verification report must be submitted one calendar month after site handover. A penalty of R500 per day shall be imposed for late submission.

Payment for the Assessment and Verification report shall be included in the fixed preliminary and general charges.

The description of the Works given is not necessarily complete and shall not limit the work to be carried out by the Contractor' under this Contract.

- **ASSET INFORMATION FOR BOESMANSNEK LAND PORT OF ENTRY:**

The following table shows the installations, number of items and detail thereof at Boesmansnek Land Port of Entry:

Civil Infrastructure:

No.	Installation	Number off	Description
1	Structural and building	25	Buildings and structures
		668 m²	Residential Area
		701 m²	Operational Area
		110	Door Locks
		82	Windows fitted with blinds
2	Plumbing, drainage and wet services	7	Stainless Steel Hand Dryers
		11	Stainless Steel Wall Mounted Bins and She Bins
		5	Stainless Steel Sanitizers
		8	Stainless Steel Soap Dispensers
		145	Taps and Valves
		26	WC Pans
		26	Cisterns
		26	Toilet Seats
		5	Urinals and Jnr Flush Masters
		38	Hand Wash Basins and Sinks
		7	Baths
		10	Showers
		16	Geysers
		15	Water Meters
		11	2.5kl Septic Tank connected to 12m French Drains
3	Fencing, cleaning, site keeping	3 106 m	Fencing with gates
4	Bulk water and external water reticulation	1	Borehole
		1	Pulsar Chlorination System
		1	Main Water Meter
		1	Pressed Steel Tank (12kl)
5	Roads and storm water drainage	10	Carports (6 single) & (4 double)
		260 m	Roads (concrete and paving)
		1 353 m²	Concrete Areas
		1 950 m²	Paved Areas
		150 m	Stormwater network

Electrical Infrastructure:

No.	Installation	Number off	Description
1	Building and site electrical	25	Buildings and structures
		32	Distribution boards
		62	Switch socket outlets (16A)
		29	Isolating switches
		9	Stoves
		96	Light switches
		96	Light fittings
2	External lighting	22	Perimeter flood lights
		12	Area lights
		10	Street lights
3	Power generation	1	125 KVA Generator – Stand-by only (Engines Description: One John Deere diesel engine, Model: CD6068C037149. Coupled to a 125kVA Faraday Alternator FD3C1-4)

Mechanical Infrastructure:

No.	Installation	Number off	Description
1	Heating, ventilation and air-conditioning	13	12 000 BTU - Air-conditioning units at various buildings
		5	18 000 BTU - Air-conditioning units at various buildings
		1	36 000 BTU - Air-conditioning units at various buildings
2	Firefighting equipment	19	4.5 kg (STP) Firefighting extinguishers
		6	5.0 kg (CO^2) Firefighting extinguishers
		27	9.0 kg (STP) Firefighting extinguishers

- **ASSET INFORMATION FOR RAMATSELISO LAND PORT OF ENTRY:**

The following table shows the installations, number of items and detail thereof at Ramatseliso Land Port of Entry:

Civil Infrastructure:

No.	Installation	Number off	Description
1	Structural and building	16	Buildings and structures
		443 m²	Residential Area
		140 m²	Operational Area
		62	Door Locks
		50	Windows fitted with blinds
2	Plumbing, drainage and wet services	3	Stainless Steel Hand Dryers
		6	Stainless Steel Wall Mounted Bins and She Bins
		2	Stainless Steel Sanitizers
		5	Stainless Steel Soap Dispensers
		80	Taps and Vaives
		13	WC Pans
		13	Cisterns
		13	Toilet Seats
		2	Urinals and Jnr Flush Masters
		11	Hand Wash Basins
		2	Baths
		5	Showers
		9	Geysers
		8	Water Meters
		6	Domestic Reverse Osmosis Systems
		3	2.5 kL Septic Tanck connected to 4,5m French Drain
		1	4 kL Septic Tanck connected to 9m French Drain
3	Fencing, cleaning, site keeping	1 523 m	Fencing with gates
4	Bulk water and external water reticulation	5	5000l Storage tanks on stands
		1	Pulsar Chlorination System
		1	Main Water Meter
		2	Concrete Reservoirs (50kl each)
		1	Pressed Steel Tank (21kl)

No.	Installation	Number off	Description
5	Roads and storm water drainage	3	Carports (double)
		440 m	Roads (concrete and paving)
		1 650 m²	Concrete Areas
		700 m²	Paved Areas
		75 m	Stormwater network

Electrical Infrastructure:

No.	Installation	Number off	Description
1	Building and site electrical	16	Buildings and structures
		15	Distribution boards
		27	Switch socket outlets (16A)
		13	Isolating switches
		5	Stoves
		47	Light switches
		47	Light fittings
2	External lighting	3	Perimeter flood lights
		3	Area lights
		2	Street lights
3	Power generation	2	130 KVA Generator – Permanent Alternating (Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4)

Mechanical Infrastructure:

No.	Installation	Number off	Description
1	Heating, ventilation and air-conditioning	8	9 000 BTU - Air-conditioning units at various buildings
2	Firefighting equipment	3	4.5 kg (STP) Firefighting extinguishers
		2	5.0 kg (CO^2) Firefighting extinguishers
		19	9.0 kg (STP) Firefighting extinguishers

- **ASSET INFORMATION FOR ONGELUKSNEK LAND PORT OF ENTRY:**

The following table shows the installations, number of items and detail thereof at Ongeluksnek Land Port of Entry:

Civil Infrastructure:

No.	Installation	Number off	Description
1	Structural and building	18	Buildings and structures
		740 m²	Residential Area
		212 m²	Operational Area
		70	Door Locks
		51	Windows fitted with blinds
2	Plumbing, drainage and wet services	2	Stainless Steel Hand Dryers
		5	Stainless Steel Wall Mounted Bins and She Bins
		4	Stainless Steel Sanitizers
		6	Stainless Steel Soap Dispensers
		106	Taps and Valves
		15	WC Pans
		15	Cisterns
		15	Toilet Seats
		4	Urinals and Jnr Flush Masters
		23	Hand Wash Basins and Sinks
		5	Baths
		9	Showers
		10	Geysers
		10	Water Meters
		2	2.5 kL Septic Tanck connected to 4,5m French drain with two-pipe sewer network
		1	4 kL Septic Tanck connected to 9m French drain with two-pipe sewer network
3	Fencing, cleaning, site keeping	866 m	Fencing with Gates
4	Bulk water and external water reticulation	1	Borehole
		1	Pulsar Chlorination System
		1	Main Water Meter
		1	Pressed Steel Tank (21kl)
5	Roads and storm water drainage	1	Carport (double)
		100 m	Roads (concrete and paving)

No.	Installation	Number off	Description
		240 m²	Concrete Areas
		1140 m²	Paved Areas
		225 m	Stormwater network

Electrical Infrastructure:

No.	Installation	Number off	Description
1	Building and site electrical	18	Buildings and structures
		19	Distribution boards
		51	Switch socket outlets (16A)
		21	Isolating switches
		11	Stoves
		60	Light switches
		60	Light fittings
2	External lighting	9	Perimeter flood lights
		5	Area lights
		3	Street lights
3	Power generation	2	130 KVA Generator – Permanent Alternating (Engines Description: Two Volvo diesel engine, Model: TAD 532 GE. Coupled to a 130kVA Marelli Generators Alternator Type: MJB 225LA4)

Mechanical Infrastructure:

No.	Installation	Number off	Description
1	Heating, ventilation and air-conditioning	5	12 000 BTU - Air-conditioning units at various buildings
		4	18 000 BTU - Air-conditioning units at various buildings
		1	24 000 BTU - Air-conditioning units at various buildings
2	Firefighting equipment	5	2.0 kg (STP) Firefighting extinguishers
		5	5.0 kg (CO2) Firefighting extinguishers
		24	9.0 kg (STP) Firefighting extinguishers

PS 3.1 CORRECTIVE MAINTENANCE WORK

CIVIL REPAIR WORK

SCHEDULE No. A1: GENERAL

SCHEDULE No. A2: INSTALLATION C1: STRUCTURAL AND BUILDING

- General structural repair work such as paintwork, replacement of damaged items, e.g. doors, locks, windows, etc. on all buildings
- Apply varnish to all exterior timber doors
- Do waterproofing on concrete roof
- Replace damaged sun louvres
- Painting of rafters and facia boards
- Replace damaged roof sheeting
- Replace damaged flashings

SCHEDULE No. A3: INSTALLATION C2: PLUMBING, DRAINAGE AND WET SERVICES

- Replacement of damaged toilette seats
- Replacement of damaged toilette pans
- Service of cisterns and flush masters
- Servicing of taps, valves, etc.
- Servicing and cleaning of geysers
- Cleaning and de-sludge of septic tanks
- Replace bottle traps at urinals and wash hand basins
- Provide drinking fountains for travellers
- Provide water meters at operational buildings
- Refurbishing existing borehole network

SCHEDULE No. A4: INSTALLATION C3: FENCING, CLEANING, SITE KEEPING AND PEST CONTROL

- Installation of ablution block equipment
- Damage repair to fences and gates
- Painting of fence with corrosion protection
- Provide swing bins in operational area
- Provide additional dustbins for operational area
- Provide wall bins for ablutions
- Replacement of defective ablution block equipment
- Check and maintain gate motors

SCHEDULE No. A5: INSTALLATION C4: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS

- Registration and licensing of Water Works
- Provide special pipe fittings for storage tanks for connection to the services
- Service pumps and equipment
- Replace dosing unit
- Clean and sterilize tanks
- Drilling of new borehole complete with testing and pumps
- Refurbishment/replacement of large reservoirs.

SCHEDULE No. A6: INSTALLATION C5: WASTEWATER AND SEWER NETWORKS

- Rehabilitation and construction of soak away
- Desludging of septic tanks
- Servicing \ repair of the waste and sewer network

SCHEDULE No. A7: INSTALLATION C6: ROADS AND STORM WATER DRAINAGE

- Road marking and maintenance of road signs
- Replacement of damaged paving in the commercial area
- Replacement of damaged concrete at control area
- Provide rubber speed humps at control area
- Provide stone pitching next to fence to eliminate erosion
- Repairs to storm water installation

CIVIL MAINTENANCE WORK

SCHEDULE No. B.1: INSTALLATION C1.M: STRUCTURAL AND BUILDING

SCHEDULE No. B.2: INSTALLATION C2.M: PLUMBING, DRAINAGE AND WET SERVICES

SCHEDULE No. B.3: INSTALLATION C3.M: FENCING, CLEANING OF BUILDINGS AND SITE KEEPING

SCHEDULE No. B.4: INSTALLATION C4.M: BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NETWORKS

SCHEDULE No. B.5: INSTALLATION C5.M: SEPTIC TANKS AND SEWER NETWORKS

SCHEDULE No. B.6: INSTALLATION C6.M: ROADS AND STORM WATER DRAINAGE

ELECTRICAL REPAIR WORK

SCHEDULE No. A8: INSTALLATION E1: BUILDING AND SITE ELECTRICAL

- Servicing of the existing lights
- Bulk Lamp replacement
- Service distribution kiosks
- Lamp replacements
- Service distribution boards
- Replacement of faulty/damaged lights, light switches and socket outlets
- Migration of energy efficient light fittings and electrical equipment.

SCHEDULE No. A9: INSTALLATION E2: EXTERNAL LIGHTING

- Servicing of the existing perimeter, street and area lights
- Bulk Lamp replacement
- Service distribution kiosks
- Lamp replacements
- Service distribution boards
- Migration of energy efficient light fittings and electrical equipment.

SCHEDULE No. A10: INSTALLATION E3: STANDBY POWER SYSTEMS

- General servicing of the existing Standby Generators
- Provide diesel for the generators for the duration of the contract
- Provide electrical/mechanical fuel water separators for diesel tanks in order to remove moisture from diesel
- Provide emergency lights and first aid kits for plant rooms
- Replace starter batteries that is at the end of their life cycle
- Replace of end-of-life generator and alternating unit.

ELECTRICAL MAINTENANCE WORK

SCHEDULE No. B.7: INSTALLATION E1: BUILDING AND SITE ELECTRICAL

SCHEDULE No. B.8: INSTALLATION E2: EXTERNAL LIGHTING INSTALLATION

SCHEDULE No. B.9: INSTALLATION E3: STANDBY POWER GENERATOR INSTALLATION

MECHANICAL REPAIR WORK

SCHEDULE No. A11: INSTALLATION M1: HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS

- Servicing of all the existing air conditioners in the various buildings and houses
- Replacement of defective parts and equipment on air conditioners
- Migrating from R22 units too more environmentally friendly R410 units

SCHEDULE No. A12: INSTALLATION M2: FIRE FIGHTING EQUIPMENT

- Servicing of all firefighting equipment
- Servicing of fire detection system
- Provide firefighting and escape signage
- Compile fire plans for operational buildings

MECHANICAL MAINTENANCE WORK

SCHEDULE No. B.10: INSTALLATION M1: HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS

SCHEDULE No. B.11: INSTALLATION M2: FIRE FIGHTING EQUIPMENT

The description of the Works given above is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract. All work will be performed according to the relevant specifications forming part of this Contract.

Approximate quantities of each type of work are given in the Bill of Quantities

PS 3.1.1 GENERAL ITEMS

- Compile and supply complete sets of site plans for Boesmansnek, Ramatseliso and Ongeluksnek Land Ports of Entry, Operational and Residential Areas.
- Compliance to OHS Act Requirements and Construction Regulations 2014
- It is required of the Contractor to thoroughly study the Additional Specification SH: HIV / AIDS
- Requirements (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bill of Quantities. Provision for pricing of HIV/AIDS awareness is made and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced, as the said items represent the only method of measurement and no additional items or extras to the Contract in this regard shall be entertained.
- Preventative Pest Control when instructed.
- Provide contingency measures during festive seasons when instructed.
- Training of EPWP Workers.

NOTE: A clear distinction will be made between the repair work to be done and the maintenance responsibilities applicable to each installation.

PS 3.1.3 OPERATION OF INFRASTRUCTURE FOR THE CONTRACT PERIOD

The 36-month operation by means of routine maintenance will be as per the Port of Entry operational hours, 07:00 to 17:00, Monday to Sunday. Unless otherwise specified.

PS 3.2 DEPARTMENT OF WATER AFFAIRS INCENTIVE BASED REGULATION MANAGEMENT AND ADMINISTRA TION

- Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water delivered to the consumers for determinants specified.
- Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water abstracted from boreholes for determinants specified.
- Special testing required by the Engineer shall include remuneration for all water related analysis, in terms of either compliance monitoring, or required to determine risks. All operational sampling and monitoring shall be the Contractor's responsibility remunerated under Operation of an Installation.
- Full SANS 241 (Part 1) set of 34 x chemical, 8 x physical determinants and 6 x micro biological determinants for annual water quality risk assessment
- Compile and submit to the Engineer for approval a Water Safety Plan in terms of the requirements of SANS 241 (Part 2), inclusive of risk based operational - and compliance monitoring programmes. Water demand management, including loss reduction and water use efficiency business plan Compile and submit to the Engineer for approval a Wastewater Risk Abatement Plan, inclusive of risk based operational - and compliance monitoring programmes, storm/ground water ingress monitoring and control planning.
- Operation as per Technical Specification DH09 comprising Maintain spreadsheet/database with drinking water system process control and maintenance information, including but not limited to: system input volumes, individual water consumption, system pressures, compliance results, operational process control results, chemical consumption, hour meter readings, volt meter readings, ammeter readings, breakdowns, etc., for Boesmansnek, Ramatselitso and Ongeluksnek Land Ports of Entry and submission to the Client in a format similar to the Department of Water Affair's incentive based regulation programmes.

PS 3.3 ROUTINE MAINTENANCE WORK

- Maintenance of each of the above installations will be the responsibility of the Contractor and will be evaluated on a monthly basis by the Engineer. The remuneration for maintenance work and responsibilities will be certified accordingly.
- Details of the required routine- and preventative maintenance are given in the relevant technical specifications and in Additional Specification SA: General Maintenance.

PS 4 CONSTRUCTION PROGRAMME

- When drawing up his construction programme, the Contractor shall take into account the time for completion for the repair work of each installation as indicated in Clause 42.1 as amended in Part 1 of the Contract Data.
- If the programme submitted by the Contractor in terms of Clause 12 of the General Conditions of Contract, has to be revised because the Contractor is falling behind in his

programme, he shall submit a revised programme of how he intends to regain lost time to ensure practical completion of repair work of each installation, and completion of the Works within the periods stipulated Part 1 of the Contract Data or within a granted extension of time and also to ensure that other contractors have access to the site to start their work on the dates as shown in the original programme. Proposals to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the Site, or by using the available labour and plant in a more efficient manner.

- Instructions by the Engineer to expedite progress shall not be the subject of additional compensation to the Contractor unless the instruction explicitly states that the Contractor is entitled to additional compensation and cites the amount of such compensation or the basis on which it is to be determined.
- Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in Clause 55 of the General Conditions of Contract as amended in Part 1 of the Contract Data.
- The approval by the Engineer of a programme shall have no contractual significance other than that the Engineer will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Engineer to instruct the Contractor to vary the programme if necessary. The Contractor is also referred to Clause PS 8 and Clause PS 12 when preparing this programme.
- NOTE: For reasons of limited access, it may not be possible to carry out the repair work on some of the installations in parallel with repair work on other installations. The repair work of some of the installations shall follow sequentially as indicated in the specifications.
- The Contractor shall organise his work in such a manner as to cause the minimum inconvenience to the User Department's personnel and operations.

PS 5 SITE FACILITIES AVAILABLE

PS 5.1 CAMPSITE AND STORE ROOM

a. Campsite

All Site Establishment areas are available and will be indicated to the Contractor. An area for the campsite was developed by the previous Contractor and the infrastructure and facilities can be utilised for the new Contract but must be repaired and maintained during the Contract to ensure that the facility maintains an esthetical value for the Ports of Entry.

b. Store room

None of the existing service buildings may be used for storage. The Contractor must provide his own storeroom facilities for the duration of the Contract.

The existing and new facilities must comply with the South African National Building Regulations and Standards in all aspects.

PS 5.2 WATER, ELECTRICITY AND SEWERAGE

a. Water supply

The Contractor must make his own arrangements for water supply. Water will be available at specific points not necessarily adjacent to working areas. Water will be available free of charge but wastage will not be tolerated. The Contractor must supply his own standard fittings to couple up at the points where water is available.

b. Electrical power supply

Electrical power supply is available on the Site and will be free of charge. The Contractor must make his own arrangements for a connection to the electrical power supply. The Contractor will be responsible, at his own cost, for the distribution of electricity for construction and domestic use.

c. Sewerage connection

Refer to Subclause PSA 4.2 in connection with toilet requirements. Chemical toilets shall be used.

NOTE: The Employer shall not be held responsible for any losses or inconvenience due to a disruption in the supply of water and/or electricity.

PS 5.3 PARKING FACILITIES

Parking facilities are available on the Site.

PS 6 SITE FACILITIES REQUIRED FOR THE ENGINEER

PS 6.1 GENERAL

The Contractor shall provide on the Site, for the duration of the repair phase and for the exclusive use of the Engineer and/or his Representative (as applicable), the various facilities described hereunder. The duration of the repair phase is stated in Part 1 of the Contract Data. All such facilities shall be provided promptly on the commencement of the Contract and failure on the part of the Contractor to provide any facility required in terms of this specification shall constitute grounds for the Engineer to withhold payment of the Contractor's Preliminary and General items until the facility has been provided or restored, as the case may be.

PS 6.2 OFFICE ACCOMMODATION

The Contractor shall provide on Site one (1) office for the exclusive use of the Engineer. Such office(s) shall comply with and be furnished in accordance with the requirements of Subclause 3.2 of SABS 1200 AB. The Contractor shall maintain the office(s) in accordance with the requirements of Subclause 5.2 of SABS 1200 AB.

Irrespective the type of material of which an office is constructed, the Contractor shall ensure that the temperature inside the office is always between 20°C and 24°C.

Such office accommodation shall be provided within the Contractor's site establishment facilities.

PS 6.3 CARPORTS

The Contractor shall provide on Site one (1) carport for the exclusive use of the Engineer, in accordance with requirements of Subclause PSAB 3.3 of the Project Specifications.

PS 6.4 SITE MEETING VENUE

The Contractor shall provide within its own site establishment facilities (or arrange the use of the Department of Public Works facilities), a suitably furnished office or other venue capable of comfortably accommodating a minimum of six (6) persons at site meetings. The Engineer shall be allowed free use of such venue for conducting any other meetings concerning the Contract at all reasonable times.

PS 6.5 SURVEY EQUIPMENT AND ASSISTANTS

a. Survey equipment

No survey equipment is required

PS 6.6 TELEPHONE FACILITIES

The Contractor shall, in accordance with the requirements of Subclause PSAB 4.1 of the Project Specifications, provide on-site, the following telephone facilities for the use of the Engineer and his Representative:

a. Cellular telephones

- Number of cellular telephones required for a period of 36 months: two (2).
- The average call cost at business rates (over the 36-month contract period) shall not exceed R3500,00 per month.

PS 6.7 COMPUTER FACILITIES

The Contractor shall provide computer facilities together with the specified software installed, for the exclusive use of the Engineer and his staff, in accordance with the requirements of SANS 1200 AB (as amended).

PS 6.8 ELECTRICITY SUPPLY FOR THE ENGINEER

All electricity supply to the Engineer's office, whether provided by the Contractor by way of a reticulated supply from a local authority or by way of on-site generators, shall be regulated by the Contractor to within limits such as to prevent damage occurring to any electrical plant and equipment provided by the Contractor or by the Engineer, as a result of fluctuations in the electrical current supplied.

PS 6.9 HOUSING FOR ENGINEER'S REPRESENTATIVE

The Engineer will provide housing for the Engineer's representative. The housing and the relevant services and local authority rates and charges shall be paid for by the Contractor on the written instruction of the Engineer, from an amount included in Section 1200 A of the Bill of Quantities for this purpose.

The Contractor is entitled to a percentage of the value of each payment to the Engineer to cover his expenses in this regard. (See payment item PSA 8.6)

PS 7 FEATURES REQUIRING SPECIAL ATTENTION

PS 7.1 INSTALLATIONS AT FACILITIES

The installations at all facilities shall be carefully checked for damage and all damages shall be listed and discussed with the Engineer before commencement of repair and maintenance work. The Contractor shall present copies of all correspondence in this regard for discussion at the following site meeting.

PS 7.2 SECURITY

a. Restrictions on movement and limited access

The Contractor's personnel, vehicles and equipment will be restricted to areas of construction only. The Contractor shall comply with any requirements that the Engineer may have in this regard and shall take note that for security reasons the access to some areas, may be limited.

b. Prohibition on taking of photographs

The Contractor's attention is drawn to the Defence Act, 1957 (Act No 44 of 1957) and the Correctional Services Act, 1998 (Act No 111 of 1998) which clearly state that the taking of photographs is prohibited and that even the possession of a camera on Site is an offence. Permission to take photographs of damaged equipment may be arranged by the Engineer.

c. Security check on personnel

The Employer may require the Contractor to have his personnel or a certain number of them security-classified, if so required by any competent authority.

In the event of the Employer or any competent authority requiring the removal of a person or persons from the site for security reasons, the Contractor shall do so forthwith and the Contractor shall thereafter ensure that such person or persons are denied access to the site and/or to any documents or information relating to the work. In such circumstances the Contractor shall indemnify the Employer and the Engineer and shall hold the Employer and the Engineer harmless against any and all claims of whatever nature arising.

d. Access cards to security areas

The Contractor shall supply access cards (laminated cards containing colour photograph, name, surname, ID number etc.) for his security-cleared personnel and employees who work within such an area. The Contractor must comply with any regulations or instructions issued from time to time, concerning the safety of persons and property, by the Department of Public Works or SA Police services.

PS 7.3 SITE TO BE KEPT CLEAN

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner, and shall keep the Site free from debris and obstructions.

All redundant materials, rubbish and waste arising from the work must be removed from the Site at the Contractor's cost and the site and buildings left clean and tidy.

PS 7.4 FACILITIES TO OTHER CONTRACTORS

In addition to the requirements of Clause 18 of the General Conditions of Contract the Contractor must make allowances for other Contractors on the Site. This may involve adapting his programme to accommodate the work of other contractors and ensuring access to their sites along prescribed routes over the Site of this Contract.

PS 7.5 SUBCONTRACTORS

In addition to the requirements of Clause 6 of the General Conditions of Contract as amended in Part 1 of the Contract Data, the Contractor shall be responsible for work carried out by subcontractors on his behalf. The Engineer will not liaise directly with such subcontractors. Problems related to payments, programming, workmanship, etc., shall be the responsibility of the Contractor and the subcontractor, and the Engineer will not become involved.

PS 7.6 SANS SPECIFICATIONS AND CODES OF PRACTICE

All reference in this document to South African National Standards specifications and codes of practice, or any other standard specifications or codes of practice, including National Building Regulations, shall be deemed to be references to the latest issues of such specifications and codes.

PS 7.7 MATERIALS

The monthly payment for materials brought onto the Site will only be applicable for repair work and not for maintenance work.

Unless otherwise instructed in writing by the Engineer, all proprietary materials are to be used, mixed, applied, fixed, etc., strictly in accordance with the manufacturer's recommendations.

PS 7.8 BORROW PITS

There will be no designated borrow pits. The Contractor shall utilise the material on Site or import material from commercial sources.

PS 7.9 PROTECTION OF FURNITURE AND EQUIPMENT

Most of the work to be done inside buildings will be carried out in places where there is furniture and other equipment.

The Contractor shall be responsible for moving the furniture and equipment in order to provide working space for his personnel. The programme shall be drawn up in such a way as to keep the movement of furniture and equipment to the very minimum and the Contractor shall be solely responsible for any damage to furniture or equipment.

PS 7.10 TESTING AND QUALITY CONTROL

The Contractor shall engage the services of an approved independent laboratory or other institution as applicable for quality testing, to ensure that his work complies with the Specifications.

No separate payment will be made for such testing, the cost of which will be deemed to be included in the Contractor's rates bid for the items of work that require testing in accordance with the Specifications.

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality-control system and provide experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates bid for the related items of work.

The Contractor's attention is drawn to the provisions of the various Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Engineer for examination, the Contractor shall furnish the Engineer with the results of the relevant tests to indicate compliance with the Specifications.

PS 7.9 CALL CENTRE

A call center has been established by the Employer to log, route and monitor incoming breakdown calls.

The call center is administered centrally and is responsible for the routing of breakdown calls on each contract at the installation. The call center is operational 24 hours per day, 365 days per year. The Contractor shall be responsible for the fixed and variable call costs incurred by the call center for a relevant contract. The Contractor shall be re-reimbursed from an amount included in the Bill of Quantities, on written instruction of the Engineer. Operating costs of the call center will be calculated, based on the number of breakdowns logged per contract, and invoiced on a monthly basis.

The Contractor is entitled to a percentage of the value of each payment in relation to the call center to cover his expenses in this regard (see payment item PSA 8.12).

PS 8 CERTIFICATES OF PAYMENT

The statement to be submitted by the Contractor in terms of Clause 49 of the General Conditions of Contract shall be prepared in accordance with the standard payment certificate prescribed by the Engineer and shall comprise at least two sets of A4-size paper copies.

All costs for the preparation and submission of the statements shall be borne by the Contractor.

PS 9 CONSTRUCTION IN RESTRICTED AREAS

Working space in certain areas may be restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. However, the Contractor must note that measurement and payment will be according to the specified cross-sections and dimensions irrespective of the method used, and that the rates and prices submitted will be deemed to include full compensation for difficulties encountered while working in restricted areas. Neither extra payment nor any claim for payment due to these difficulties will be considered.

PS 10 DRAWINGS

The Contractor will, in terms of Clause 13 of the General Condition of Contract, be provided free of charge with three paper prints of each drawing issued to him.

All information in the possession of the Contractor that is required by the Engineer's representative to complete the as-built drawings must be submitted to the Engineer's representative before a Certificate of Completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless required by the Engineer. The Engineer will provide the dimensions that may have been omitted from the Drawings.

PS 11 LEGISLATION

a. Changes in legislation

Reference in the General Conditions of Contract and in any other standard document forming part of this Contract to legislation which has been amended or superseded by other legislation since the most recent publication of such standard document, shall be deemed to be a reference to the amended or replacement legislation.

Such amended or replaced legislation shall be applicable during the Contract Period provided the amendment or replacement occurred more than 28 days before the closing date for bids in terms of Clause 46.4 of the General Conditions of Contract as amended in Part 1 of the Contract Data.

b. The Occupational Health and Safety Act

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2003 as promulgated in Government Gazette No

25207 and Regulation Gazette No 7721 of 18 July 2003. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and hazards likely to be encountered on this Contract are detailed in the Scope of Work, Pricing Data and Drawings. The Employers' health and safety specifications (subclause 4(1)) of the regulations will be issued separately.

The Contractor shall in terms of subclause 5(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned Construction Regulations 2003.

PS 12 INSURANCE AMOUNTS

The amounts for which the Contractor must insure the Works in terms of Clause 35 of Part 1 of the Contract Data are stated in the Agreement.

PS 13 TIMES FOR COMPLETION

Times for completion of repair work to installations as well as the maintenance down-time for different types of breakdowns are given under Clause 42.1 of Part 1 of the Contract Data. The time for completion will start on the date of access to an installation.

PS 14 PRACTICAL COMPLETION

a. The Contractor shall be entitled in terms of Clause 51.1 of the General Conditions of Contract to receive a Certificate of Practical Completion when the Works to be executed under the Contract have been completed to the stage where:
   - all materials which are required to be replaced have been replaced and installed to the satisfaction of the Engineer; and
   - all repair works have been completed.

b. The Engineer shall issue to the Contractor and the Employer a Certificate of Completion in terms of Clause 51.4 of the General Conditions of Contract except where a thirty-day commissioning period, as stated in paragraph (c) below, is applicable.

c. Where indicated at the end of this paragraph, the issuing of a Certificate of Practical Completion for a certain installation will be followed by a thirty-day commissioning period. The tasks of the Contractor during the thirty-day commissioning period are described in Additional specification SC: General Decommissioning, Testing and

Commissioning Procedures. After the completion of the thirty-day commissioning period to the satisfaction of the Engineer, a certificate of completion will be issued to the Contractor as described in Clause 51.4 of the General Conditions of Contract.

PS 15 PENALTIES

Penalties in terms of Clause 43.1 of the General Conditions of Contract for late completion of repair work to different installations are given under Clause 43.1 of Part 1 of the Contract Data. Payment reductions for exceeding the maintenance down-time for different types of breakdowns are given under the applicable pay items in the Bill of Quantities for Additional specifications SA: General Maintenance. Penalties will run concurrently where applicable.

a. Penalty for failing to meet undertakings and/or conditions pertaining to Targeted Procurement for the award of points

If the bid adjudication points awarded to the Contractor are found to be based on incorrect or false information or the conditions pertaining to the award of points are not met and the Contractor fails to substantiate that such failure is due to a reason acceptable to the Employer (as being) beyond the Contractor's control, the Contractor shall be liable for and pay to the Employer, and amount determined in accordance with clause 2 and subject to clause 1 both of the Works Information, Part 2 of the Conditions of Bid.

b. Payment reduction for non-performance

If the Contractor shall fail to rectify a fatal breakdown, an emergency maintenance breakdown, an ordinary maintenance breakdown and damage breakdown within the time as stipulated in Additional Specifications SA: General Maintenance, the Contractor shall be liable to the Employer for the sum/sums stated in the Bill of Quantities for Additional Specification SA as a payment reduction for every hour/day down-time counting from the hour/day the breakdown was reported to the Contractor until the day it was repaired. These payment reductions will be cumulative and will run concurrently.

Where indicated above that the money will be recovered from the Contractor by means of payment reductions, the fixed negative amounts in the rate column of the Bill of Quantities will be used to reduce payments due to the Contractor.

The imposition of such payment reductions shall not relieve the Contractor from his obligation to complete the Works or from any of his obligations and liabilities under the Contract.

c. Application of penalties to be accumulative

The imposition of all penalties in terms of this clause shall be accumulative and shall not relieve the Contractor from his obligation to complete the Works or from any of his obligations and liabilities under the Contract.

PS 16 NON-WORKING DAYS AND HOURS

Whenever any special non-working days stated in Clause 1.6 and Clause 38 of Part 1 of the Contract Data fall within the days allowed or stipulated in the Contract in terms of Clause 1.6 of Part 1 of the Contract Data, such special non-working days shall also be excluded from the calculation of the number of working days concerned.

The Contractor shall not work on any statutory public holidays or on any public holidays declared by the Government to be statutory non-working days, except for work related to repair fatal and emergency breakdowns which influences the functionality of any of the installations.

Working hours might be limited and the Contractor shall work in close cooperation with the User Department and Engineer in this regard. Working hours for the different installations are indicated at the end of this clause where applicable.

The Engineer shall be entitled at any time during the Contract, to vary the normal working hours specified in the Bid documents, including increasing or decreasing the total number of hours per day during which the Contractor may execute the Works or specific portions thereof.

If any variation by the Engineer of the normal working hours specified in the Bid Documents should result in an increase or a decrease in the total number of hours per week during which the Contractor is permitted to execute the Works or any particular portions of Works, then the time allowed in the Contract for the completion of the respective part of the Works to which the varied normal working hours apply shall be adjusted proportionately in relation to:

a. the remaining time allowed for completion of the specific part or parts of the Works; and

b. the extent of the variation in the total normal working hours per week.

3.5.2 AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATION:

Insert amendments

C3.5.3 PARTICULAR SPECIFICATIONS:

PSA 1 SCOPE

REPLACE SUBCLAUSE 1.1 WITH THE FOLLOWING:

"1.1 This specification covers requirements, principles and responsibilities of a general nature that are normally applicable to all Civil Engineering Contracts, as well as the requirements for the Contractor's establishment on the Site."

PSA 2 INTERPRETATIONS

PSA 2.3 DEFINITIONS

(a) General

ADD THE FOLLOWING DEFINITIONS:

"General conditions: The General Conditions of Contract specified for use with this Contract, and the Contract Data.

Specified: As specified in the standardised and standard specifications, the Drawings or the Scope of Work.

Permanent Works: as defined in Clause 1.1.17 of the General Conditions of Contract shall for the purpose of this Contract, be regarded as the repair work and maintenance work as defined in Subclause SA 02.06 of Additional Specification SA: General Maintenance."

(c) Measurement and payment

REPLACE THE DEFINITIONS FOR "fixed charge", "time-related charge" AND "value-related charge" WITH THE FOLLOWING:

"Fixed charge: A charge that is not subject to adjustment on account of variation in the value of the Contract price or the Contract Time of Completion.

Time-related charge: A charge, the amount of which varies in accordance with the Time for Completion of the repair work, adjusted in accordance with the provisions of the Contract.

Value-related charge: A charge, the amount of which varies pro rata with the final value of the measured repair work executed and valued in accordance with the provisions of the Contract."

PSA 2.4 ABBREVIATIONS

(a) Abbreviations relating to standard documents

ADD THE FOLLOWING ABBREVIATION:

"CKS: SABS Co-ordinating Specification."

PSA 3 MATERIALS

PSA 3.1 QUALITY

ADD THE FOLLOWING:

"All manufactured materials supplied shall be new materials unless the contrary is specified. All materials specified in accordance with SABS Specifications shall bear the SABS mark, whether so specified or not."

ADD THE FOLLOWING SUBCLAUSE:

PSA 3.3 ORDERING OF MATERIALS

The quantities set out in the Bill of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be approximate quantities only. Before ordering materials of any kind the Contractor shall check with the Engineer whether or not the scope of the work for which the materials are required is likely to change substantially. No liability or responsibility whatsoever shall be attached to the Employer for materials ordered by the Contractor except when ordered in accordance with written confirmation issued by the Engineer."

PSA 4 PLANT

PSA 4.2 CONTRACTOR'S OFFICES, STORES AND SERVICES

ADD THE FOLLOWING PARAGRAPH BEFORE THE FIRST PARAGRAPH:

"The Contractor's construction camp shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. The camp shall always be kept in a neat and orderly condition.

No personnel may reside on the Site. Only one night-watchman may be on the Site after hours."

ADD THE FOLLOWING TO THE SECOND PARAGRAPH:

"One chemical toilet per 10 workmen shall be provided and must be screened from public view and its use shall be enforced.

The Contractor shall, where applicable, make the necessary arrangements for the removal of night soil."

PSA 5 CONSTRUCTION

PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

REPLACE THE HEADING AND THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES

PSA 5.4.1 Location of existing services

Before underground or excavation work is carried out, the Contractor shall ascertain the presence and position of all services likely to be damaged or interfered with by his activities. He shall obtain up-to-date plans from the Engineer for this purpose, showing the position of

services in the area where he intends to work. As services can often not be reliably located from such plans, the Contractor shall determine the exact position of such services by means of suitable detecting equipment and afterwards by careful hand excavation where necessary in order to expose the services at the positions of possible interference by his activities. This procedure shall also be followed in respect of services not shown on the plans but believed to be present.

All such services, the positions of which have been located at the critical points, shall be designated as 'known' services and their positions shall be indicated on a separate set of Drawings, a copy of which shall be furnished to the Engineer.

While he is occupying the Site, the Contractor shall be liable for all damage caused by him to known services as well as for consequential damage, whether caused directly by his operations or by the lack of proper protection.

PSA 5.4.2 Protection during repair and maintenance work

The Contractor shall exercise all the necessary care to prevent damage to known services during repair and maintenance work. Where applicable, major excavating equipment and other Plant shall not be operated dangerously close to these services. Where necessary, excavation in close proximity to these services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional payment will apply to such more difficult work.

Services left exposed shall be suitably protected from damage.

PSA 5.4.3 Alterations and repairs to existing services

Unless the contrary is clearly specified or ordered, the Contractor shall not carry out alterations to existing services. When this is necessary, the Contractor shall inform the Engineer, who will either make arrangements for such work to be executed by the owner of the service, or instruct the Contractor to make such arrangements himself.

When existing services are damaged by the Contractor, he shall immediately inform the Engineer, or when this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases the Contractor shall take the necessary steps to minimise damage to and interruption of the service. No repairs of telecommunication cables or electric power lines and cables shall be attempted.

The Employer will accept no liability for damages due to a delay in having such alterations or repairs effected. The Contractor shall provide all reasonable opportunity, access and assistance to persons carrying out alterations or repairs of existing services."

ADD THE FOLLOWING SUBCLAUSE:

"PSA 5.9 SITE MEETINGS

The Contractor will be required to attend regular site meetings, normally held once a month to discuss general progress, quality of work, problems, claims, payments, etc., but not matters concerning the day-to-day running of the Contract."

PSA 6 TOLERANCES

ADD THE FOLLOWING SUBCLAUSE:

"PSA 6.4 GENERAL

No guarantee is given that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified or when clearly not applicable, all quantities for measurement and payment shall be determined from the 'authorised' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Engineer, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorised' dimensions.

If the work is therefore constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, quantities will be based on the 'authorised' dimensions regardless of the actual dimensions to which the work has been constructed.

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Engineer may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be based on the actual dimensions as constructed."

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 MEASUREMENT

PSA 8.1.2 Preliminary and general items or section (for repair phase only)

PSA 8.1.2.2 Bid sums

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The Contractor's bid sums under items PSA 8.3 and PSA 8.4 shall collectively cover all charges during the repair phase for

- risks, costs and obligations in terms of the General Conditions of Contract, the Contract Data and of this Standardised Specification, except where provision is made in these Project Specifications to cover compensation for any of these items;

- head-office and site overheads and supervision;
- profit and financing costs;
- expenses of a general nature not specifically related to any item or items of permanent or temporary work;
- providing facilities on Site for the Contractor's personnel, including offices, storage facilities, workshops, ablutions, for providing services such as water, electricity, sewerage, sewage and rubbish disposal, for access roads and all other facilities required, as well as for the maintenance and removal on completion of the Works of these facilities and the cleaning-up of the camp site on completion of the Works;
- providing facilities for the Engineer and his staff as specified in SABS 1200 AB and in these Project Specifications"

PSA 8.2 PAYMENT

PSA 8.2.1 Fixed-charge and value-related items

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"Payment of fixed charges in respect of item 8.3.1 will be made as follows:

Eighty per cent (80%) of the sum bid will be paid when the facilities have been provided and approved. The remaining 20% will be paid when the repair works have been completed, the facilities have been removed and the camp site has been cleared and cleaned.

Payment for the sum bid under item 8.3.2 will be made in three separate instalments as follows:

(a) The first instalment, which is 40% of the sum, will be paid when the Contractor has fulfilled all his obligations to date under this Standardised Specification, the General Conditions of Contract and the Contract Data, and when the value of work certified for payment, excluding materials on Site and payments for preliminary and general items, is equal to not less than 5% of the total value of the repair work listed in the Bills of Quantities.

(b) The second instalment, which is 40% of the sum, will be made when the amount certified for payment, including retention monies but excluding this second instalment, exceeds 50% of the repair work.

(c) The final payment, which is 20% of the sum, will be made when the repair works have been certified as completed and the Contractor has fulfilled all his obligations to date under this Standardised Specification, the General Conditions of Contract and the Contract Data.

Should the value of the measured repair work finally completed be more or less than the Bid Sum for repair work, the sum bid under item 8.3.2 will be adjusted up or down in accordance with the provisions of Clause 50 of the General Conditions of Contract as amended in Part 1 of the Contract Data, and this adjustment will be applied to the third instalment. No adjustment will apply to item 8.3.1 in respect of variations in the value of work done or after the finally authorised Time for Completion."

Note: Payment under item 8.3.2 will only be applicable to repair work.

PSA 8.2.2 Time-related items

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"Subject to the provisions of Subclauses 8.2.3 and 8.2.4, payment under item 8.4.1 (time-related item) will be made monthly in equal amounts for each installation, calculated by dividing the sum bid for the item by the repair phase period for the installation in months, provided always that the total of the monthly amounts so paid for the item is not out of proportion with the progress of the work on the installation as a whole.

Should the Engineer grant an extension of Time for Completion of the repair works on the installation, the Contractor will be entitled to an increase in the sum bid for the time-related item, which increase shall be in the same proportion to the original sum bid as the extension of time is to the original Time for Completion of the repair works.

Payment of such increased amounts will be deemed full compensation for all additional time-related preliminary and general costs due to the circumstances pertaining to the extension of time granted for an installation. The length of the repair phase for each installation is indicated in Part 1 of the Contract Data.

In the Bills of Quantities separate provision is made for time-related items for each installation individually. Time-related payment for an installation shall only be made when the repair work on the installation is in progress and shall end when the time for completion or an extension of time granted by the Engineer expires. When repair work on more than one installation is in progress, time-related payment will be made for each installation and the conditions as stated above shall apply to each installation individually."

PSA 8.3 BILLED FIXED-CHARGE AND VALUE-RELATED ITEMS

REPLACE THE ITEMS WITH THE FOLLOWING:

"PSA 8.3.1 Fixed preliminary and general charges Unit : Sum

PSA 8.3.2 Value-related preliminary and general charges Unit : Sum

The sums bid shall include full compensation for all fixed and value-related preliminary and general charges as described in Subclause PSA 8.1.2.2. Payment will be made as described in Subclause PSA 8.2.1."

PSA 8.4 BILLED TIME-RELATED ITEMS

REPLACE THIS ITEM WITH THE FOLLOWING:

"PSA 8.4.1 Time-related preliminary and general charges:

(a) Boesmansnek, Ramatselitso and Ongeluksnek Land Ports of Entry Unit: Month

The sums bid shall include full compensation for all time-related preliminary and general charges as described in Subclause PSA 8.1.2.2. Payment will be made as described in Subclause PSA 8.2.2.

NOTE: The total amount bid for items PSA 8.3.1, PSA 8.3.2 and PSA 8.4.1 shall not exceed 15% of the total amount bid for repair work, excluding value-added tax.

PSA 8.6 PRIME COST ITEMS

REPLACE THIS ITEM WITH THE FOLLOWING:

"PSA 8.6 PRIME COST SUMS:

(a) Housing for Engineer's representative Unit: PC Sum

(b) Charge required by Contractor on subitem (a) above Unit: %

The Prime Cost Sum provided under subitem (a) in the Bill of Quantities will be expended in accordance with Clause 45.2 of the General Conditions of Contract.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment made to the Engineer.

PSA 8.8 TEMPORARY WORKS

REPLACE ITEM 8.8.4 WITH THE FOLLOWING:

"PSA 8.8.4 Location and protection of existing services:

PSA 8.8.4.1 Provision of detecting devices for:

(a) Water and sewer pipes Unit : Sum

(b) Electrical and other cables Unit : Sum

The bid sums shall cover the cost of providing and operating suitable equipment for as long as it is needed to locate all the existing services likely to be affected by the construction activities. Alternatively, an approved specialist firm may be employed to carry out the work.

PSA 8.8.4.2 Hand excavation necessary for locating and exposing existing services in all material:

(a) in roadways — Unit: m3

(b) in all other areas — Unit: m3

The rates shall cover the cost of excavating by means of hand tools within authorised dimensions, for all precautionary measures to protect the services from damage during excavation and backfilling, and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 90% of the modified AASHTO density.

The rate for hand excavation in roadways shall include compensation for compacting excavated or selected backfill material to 93% of modified AASHTO density.

The bid rates shall also include for keeping excavations safe, for dealing with surface and subsurface water, for removing surplus excavated material from the Site, for transporting all material, and for supplying adequate supervision during both excavation and backfilling operations."

ADD THE FOLLOWING ITEMS:

"PSA 8.9 ADDITIONAL TESTS:

(a) Additional tests required by the Engineer — Unit : Sum

(b) Attendance and profit — Unit : %

An amount has been allowed in the Bill of Quantities under subitem (a) to cover the cost of additional tests required by the Engineer. The Engineer will have the sole authority to spend the amount or part thereof.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment made to the testing authority.

Note in connection with subitem (a):

The Contractor is responsible for both the cost of normal testing as described in Subclause PS 8.10 in portion 1 of the Project Specifications and for the cost of any additional test that indicates that the Specifications have not been complied with.

PSA 8.10 SECTIONAL FENCING FOR THE PROTECTION OF THE WORKFORCE **Unit : m**

The bid rate shall include full compensation for the supply, delivery, initial erection and finally removal from the site of the sectional fencing. The cost to move the fencing will not be paid for separately but shall be deemed to be included in the rate bid.

PSA 8.11 MAINTENANCE MATERIAL:

Supply and deliver maintenance material to the site:

(a) Description of type of service for which material is needed:

(i) Description of specific material Unit: litre, m², m, number

(ii) Etc., for other types of material.

(b) Etc. for other types of service.

The unit of measurement shall be the litre, square metre, metre or number as applicable to each item ordered on the written instructions of the Engineer.

The bid rates shall include full compensation for supplying and delivering to the maintenance store(s) of the Employer on the Site of the Works each item as billed and shall include for all labour, material, waste and, transport.

A complete book keeping system with delivery notes and order "invoices" shall be kept by the Contractor and the cost thereof shall be deemed to be included in the rates bid for the various items.

The rates bid will be fixed for the full duration of the repair phases and shall be applicable to any quantity "ordered" irrespective of size, contents, volume of container or the number. The actual square metre size of the "ordered" items will be calculated to two decimal points for payment purposes. No "rounding-off" to the nearest square metre quantity will be allowed. It is expected that the maintenance material will be ordered in small quantities throughout the duration of the Contract."

PSA 8.12 CALL CENTRE

(a) Call center operating costs for breakdown calls logged Unit: Sum

(b) Charge required by contractor on subitem (a) above Unit: %

An amount has been allowed in the Bill of Quantities under subitem (a) to cover the cost of administrating breakdown calls logged through the call centre. The call centre will submit to the contractor a monthly invoice for breakdown calls logged and monthly subscription . The

Contractor will be responsible for prompt payment of the invoice received from the call centre.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment pertaining to the call centre to cover his expenses in this regard.

Payment to the Contractor will only become due upon submission of proof of payment to the call centre.

PSA 8.13 COMPLIANCE WITH OHS ACT AND CONSTRUCTION REGULATIONS 2003 **Unit: sum**

The bid sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and the Construction Regulations 2003 at all times during the repair and maintenance phase, as described in PS 13 of Portion 1 of the Project Specifications. The successful bidder shall provide the Engineer with a complete breakdown of this bid sum.

This sum will be paid to the Contractor in equal monthly amounts for the entire duration of the contract period.

PSAB ENGINEER'S OFFICE

PSAB 3 MATERIALS

PSAB 3.1 NAMEBOARDS

REPLACE THE FIRST SENTENCE OF SUB-CLAUSE 3.1 OF SANS 1200AB WITH THE FOLLOWING:

"The Contractor shall supply and erect at locations approved by the Engineer, the number of contract nameboards specified in Portion 1 of the Project Specifications, which, unless otherwise specified in the Contract, shall comply with the recommendations for the standard board of the South African Association of Consulting Engineers, with regards to size, painting, decorating and detail, and the requirements described hereunder."

PSAB 3.2 OFFICE BUILDING(S)

REPLACE THE WORDS: "as scheduled" IN PARENTHESIS IN THE FIRST LINE OF SUBCLAUSE 3.2 OF SANS 1200 AB WITH: "as specified in Portion 1 of the Project Specifications";

AND REPLACE SUBCLAUSE 3.2(j) OF SANS 1200 AB WITH THE FOLLOWING:

"(j) a heater and fan / air-conditioning unit both of such capacity that the inside of the office(s) is always at a temperature of between 20°C and 24°C."

ADD THE FOLLOWING SUBCLAUSE IN CLAUSE 3:

"PSAB 3.3 CAR-PORT

The Contractor shall construct the number of carports indicated in Portion 1 of the Project Specifications, for the sole use of the Engineer and his staff. Each car-port shall be constructed so that the vehicle parked under it is always protected against the direct rays of the sun. The carport area shall be at least 36 m² and the floor shall be covered with a layer of crushed stone to alleviate dusty and muddy conditions. The carport(s) shall be positioned so as to provide easy and convenient access to the Engineer's office."

PSAB 4 PLANT

PSAB 4.1 TELEPHONE

REPLACE THE WORDS: "Department of Post and Telecommunications" WITH "Telecoms Provider" AND ADD THE FOLLOWING AT THE END OF SUBCLAUSE 4.1 OF SABS 1200 AB:

ADD THE FOLLOWING NEW SUBCLAUSES TO CLAUSE 4 OF SABS 1200 AB:

"PSAB 4.2 COMPUTER EQUIPMENT

Where it is specified in Portion 1 of the Project Specifications that the Contractor shall provide computer equipment on site for the exclusive use of the Engineer and his staff, such computer hardware and software shall comply with the specifications set out in Subclauses PSAB 4.2.1 and PSAB 4.2.2 hereunder.

PSAB 4.2.1 Computer hardware

(a) Computers

Laptop shall comply with the following minimum specifications:

System Features

1x laptop with CPU - Intel® Core™ i7-12th generation (2.90 GHz, 4 MB L3 cache, 4 cores) Genuine Windows® 11 Professional 64

Mobile Intel® QM57 Express

Memory - 32 GB MEMORY

Storage - 1TB Solid State Drive

Graphics – 15 .6 LED-backlit FHD Anti-Glare 4k display

NVIDIA Quadro FX 8000M with 8 GB dedicated GDDR5 video memory

Ports - 3USB 3.0 ports,

Mobile Broadband 4G/LTE/5G wireless card

1x 32-inch 4k display monitor

(b) Printers

Printers shall, unless otherwise approved by the Engineer, be DeskJet (Black and White) or laser printers.

All computer hardware shall be provided complete with the requisite connecting cables and all inter-facing devices and software necessary for its efficient operation as an integral system.

PSAB 4.2.2 Computer software

The following software shall be properly installed on the computer, and the original licence agreements and disks shall be provided to the Engineer for safekeeping:

(a) Microsoft Windows® 11 Professional 64-bit

(b) MS-Office 2021 Professional

PSAB 4.3 TELEFAX FACILITIES

Not applicable

PSAB 4.4 SURVEY EQUIPMENT

No survey equipment is required.

PSAB 5 CONSTRUCTION

PSAB 5.4 TELEPHONE

REPLACE THE CONTENTS OF SUBCLAUSE 5.4 OF SABS 1200 AB WITH THE FOLLOWING:

"PSAB 5.4.1 Telkom telephones

The Contractor shall advise Telkom promptly of any faults which develop in the telephone service and shall, in such circumstances, arrange for the earliest possible restoration of the said service.

The Contractor shall ensure that the telephone account is promptly paid.

PSAB 5.4.2 Cellular telephones

The Contractor shall advise the cellular service provider of any faults which develop in the cellular telephone service and/or the cellular telephone handsets and shall, in such circumstances, arrange for the earliest possible restoration of the said service.

The costs of any necessary repairs and/or the replacement of components to the handsets of the cellar telephones shall be for the Contractor's account.

The Contractor shall ensure that all accounts for cellular phone calls and the respective service contracts are promptly paid."

ADD THE FOLLOWING NEW SUBCLAUSES TO CLAUSE 5 OF SABS 1200 SB:

"PSAB 5.6 COMPUTER EQUIPMENT

All computer equipment provided shall be kept fully serviceable at all times by the Contractor. The Contractor shall have any defective equipment repaired or replaced at his own cost within 12 hours after notification by the Engineer's staff.

The Contractor shall further provide at his own cost, all paper and black ink cartridges and other consumables reasonably required by the Engineer.

PSAB 5.7 TELEFAX FACILITIES

Not applicable

PSAB 5.8 SURVEY EQUIPMENT

No survey equipment is required.

C3.6 STANDARD MINIMUM REQUIREMENTS

In terms of section 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 establish and promote best practice standards, Standard Requirements and Guidelines which includes the following but not limited to:

C3.61 cidb Best Practice: Green Building Certification, No. 34158 Government Gazette, 1 April 2011

C3.6.2 cidb Standard for Developing Skills through Infrastructure Contracts, No. 36760 Government Gazette, 23 August 2013

C3.6.3 cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013

C3.6.4 Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017, No. 40553 Government Gazette, 20 January 2017

C3.6.5 cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts, No. 41237 Government Gazette,10 November 2017

C3.6.6 cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017

C3.6.7 cidb Standard for Minimum Requirements for Engaging Contractors and Sub- Contractors on Construction Works Contracts, No. 42021 Government Gazette, 9 November 2018

C3.6.8 cidb Standard for Developing Skills through Infrastructure Contracts, No 48491 Government Gazette, 23 April 2023

C3.7 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the respective CPGs. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

C3.7.1 Minimum Targeted Local Material Manufacturer Contract Participation Goal

The Minimum Targeted Local Building Material Manufacturers CPG is *applicable* to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Manufacturers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020.

A Targeted Local Material Manufacturer is a targeted enterprise that operates or maintains a factory or establishment that produces on its premises materials or goods required by the principal contractor for the performance of the contract.
Note: Adapted from SANS 10845-7:2015, definition 2.13

Preference shall be given to the Targeted Local Material Manufacturer where feasible in **Matatiele in Easter Cape and Underberg in KwaZulu-Natal**, and provided that:

(a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
(b) The non-availability of such materials shall not adversely affect the desired progress of the specific works,
(c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
(d) Materials of at least **10% Ten Percent** of the total value of materials purchased excluding VAT to be sourced from within **50 km** radius of the project site,
(e) Material of at least **10% Ten Percent** of the total value of materials purchased excluding VAT to be sourced from within **100 km** radius of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorate targeted value of materials not complied with unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.2 Minimum Targeted-Local Building Material Suppliers Contract Participation Goal

The Minimum Targeted Local Building Material Suppliers CPG is *applicable* to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Suppliers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

A targeted supplier is a targeted enterprise that

a) owns, operates or maintains a store, warehouse or other establishment in which goods are bought, kept in stock and regularly sold to wholesalers, retailers or the public in the usual course of business; and
b) engages, as its principal business and in its own name, in the purchase and sale of goods.

Note: Adapted from SANS 10845-7:2015, definition 2.14

Preference shall be given to the local material suppliers where feasible in the **Matatiele in Easter Cape** and **Underberg in KwaZulu-Natal**, and provided that:

(a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
(b) The none availability of such materials shall not adversely affect the desired progress of the specific works,
(c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
(d) Materials of at least **10% Ten Percent** of the total value of materials purchased excluding VAT to be sourced from within **50 km** of the project site,
(e) Material of at least **10% Ten Percent** of the total value of materials purchased excluding VAT to be sourced from within **100 km** of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorate targeted value of materials not complied with, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.3 Minimum Targeted Local Labour Skills Development Contract Participation Goal

The Minimum Targeted Local Labour Skills Development CPG is *applicable* to this project.

It is the requirement of the employer that the contractor enhances the use of local labour in executing this contract. This is required to be done through the use of both traditional building techniques and labour-intensive construction techniques careful and considered construction planning and implemented in the project irrespective whether a minimum percentage Participation Goal is applicable or not.

The Minimum Targeted Local Skills Development Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

Targeted labour: individuals who:

a) are employed by the principal contractor, sub-contractor or targeted enterprises in the performance of the contract;
b) are defined as the target group in the targeting data; and
c) permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

Adapted from SANS 10845-7:2015, definition 2.12

Targeting of labour by skills categories is only permissible within categories of semi-skilled and unskilled labour.

Contract participation goals for semi-skilled and unskilled labour shall be limited to on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract and in a manner that does not compromise worker health and safety. In the case of targeted labour, the certification of records shall be in accordance with SANS 10845-8.

Beneficiaries will be sourced from the **Matatiele in Easter Cape** and **Underberg in KwaZulu-Natal** for the full duration of the Construction Period, employed by either the principal contractor, sub-contractors or targeted enterprises. The total number of working days to complete the Works amount to **365** working days. The minimum CPG participation for Targeted Local Labour Skills Development is **10% Ten Percent**, expressed as a percentage of the total number of working days required to complete the Works. The contractor shall attain or exceed the CPG in the performance of the contract. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of **R5 000** (Excluding VAT), per working day which training has not been provided to the workforce in attendance, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.4 CIDB BUILD PROGRAMME: Minimum Targeted Enterprise Development Contract Participation Goal

The Minimum Targeted Enterprise Development CPG is *applicable* to this project.

The aim of this best practice standard for indirect targeting for enterprise development in accordance with the Standard for Indirect Targeting for Enterprise Development (published in Government Gazette 36190 of 25 February 2013), as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. is to promote enterprise development by providing for a minimum Contract Participation Goal (CPG) of **five percent (5%)** of the contract amount as defined in the Standard (Tender amount, excluding allowances and VAT) on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

The lead partner or main contractor shall dedicate a **minimum five percent (5%)** of the tender value at the time of award, excluding allowances and VAT, to provide developmental support to targeted subcontractor or joint venture partner applicable to contracts in Grades 7 to 9, General Building and Civil Engineering contracts. Preference will be given to General Building, Electrical, Mechanical, Plumbing, etc. It could be either or any combination of all Enterprises.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.4.1 Criteria

The main or lead partner of the successful bidder shall:

(a) There must be a needs analysis for indirect targeting and development or skill standard and should be development in at least any two developmental areas namely;

- Administrative and cost control systems
- construction management systems and plans
- planning, tendering and programming
- business; technical; procurement skills
- legal compliance
- credit rating/history; financial loan capacity/history
- contractual knowledge

(b) The above needs analysis shall be mutually agreed upon between contractor and targeted enterprise

(c) The contractor shall appoint an enterprise development coordinator to:

- perform needs analysis on the targeted enterprise to identify developmental goals
- develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas
- provide internal mentorship support to improve the targeted enterprise/s performance
- monitor and submit to the employer's representative a monthly enterprise development report thereby reporting on the progress of the agreed development areas with the targeted enterprise/s
- submit a project completion report to the Employer's representative for each targeted enterprise.

C3.7.4.2 Management

The contractor shall provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

C3.7.4.3 Competence Criteria for an Enterprise Development Co-ordinator

The enterprise development co-ordinator shall have the following competencies:

- Minimum experience of 5 years in the construction industry at Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager or Enterprise Development Manager.
- Minimum experience of 2 years in training and development in Building or Construction; and
- National Diploma or B Degree in the Built Environment or Business Management

C3.7.4.4 Format of Communications

The contractor shall submit to the Employer's Representative:

- *Project interim reports* in the specified format **(ED105P)** detailing interim values of the CPG that was achieved together with an assessment of the enterprise development support provided should be tabled and discussed at least monthly at progress meetings between employer's representative and the contractor;
- *Project completion report* in the specified format **(ED101P)** to the Employer's Representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or of the joint venture entered into; and the participation parameter
- *Enterprise development declaration* ***(ED104P)***.

C3.7.4.5 The Key Personal

The contractor shall appoint an Enterprise Development Co-ordinator and a competent person/s to provide internal mentorship.

C3.7.4.6 Management Meetings

The contractor shall report to the Employer's Representative on the implementation and progress of the targeted enterprise development and CPG at monthly progress site meetings.

C3.7.4.7 Forms for contract administration

The contractor shall submit to the Employer's Representative the following proformas:

- Form ED 105P Project Interim Report
- Form ED 104P Enterprise Development Declaration
- Form ED 101P Project Completion Report

C3.7.4.8 Records

The contractor shall:

- keep records of the targeted enterprise development
- keep records of the payments made to the targeted enterprises in relation to the CPG.
- ensure all the documentation required in terms of the Standard is provided with each monthly progress payment certificate and according to a prescribed format where applicable.

C3.7.4.9 Payment Certificates

The contractor shall:

- achieve the measurable CPG and providing enterprise development support to the targeted enterprise/s as per the Standard.
- submit payment certificates to the Employer Representative at intervals determined in the Contract.

C3.7.4.10 Compliance requirements

Non-compliance with the Best Practice Project Assessment Scheme

The wording of regulation 27A of the cidb regulations makes provision for the Board to enforce the cidb code of conduct in the event of clients being found to be in breach of the best practice project assessment scheme.

- Not including the requirements of the cidb standards in the conditions of tender
- Not registering the award of contract on the cidb Register of Projects (RoP)
- Not reporting practical completion on the cidb Register of Projects (RoP)

3.7.5 **CIDB BUILD PROGRAMME: Minimum Targeted Contract Skills Development Goal (CSDG)**

The Minimum Targeted Contract Skills Development CPG is *applicable* to this project.

The contractor shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No 48491 of 23 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a **thirty percent (30%)** penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

C3.7.5.1 Methodology

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 sixty percent (60%) of the artisan learners being holders of public TVET college qualifications;

Method 3: work integrated learning opportunities for University of Technology or Comprehensive University students completing their national diplomas;

Method 4: structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council.

The contract skills participation goals, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 1 in the Standard for the applicable class of construction works.

Table 1: Contracting 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		Construction skills development goal (CSDG) (%)
Designation	**Description**	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and 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

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 2 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

Table 2: Notional Cost of Training per Headcount
Source: cidb Standard for Skills Development

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	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College 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	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasuarble item.

(a) (a) The successful contractor may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 - List of cidb accredited SDAs).

(b) The successful contractor must employ at least sixty percent (60%) of the learners from an FET / TVET college should the contractor select to have part/full occupational qualification learners and trade qualification learners contributing to the CSDG.

(c) The successful contractor shall employ at least **minimum five percent (5%)** from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the employer.

(d) The successful contractor shall ensure that no single method shall contribute more than seventy five percent (75%) of the CSDG for the contract.

(e) The successful contractor may only place thirty three percent (33%) employed employees or that of his subcontractors contributing to the CSDG.

(f) The contractor shall employ at least sixty percent (60%) of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.

(g) One of the objectives of the project is to train **minimum five percent (5%)** Occupational qualifications, trade qualification, work integrated learners – P1 and P2 learners, professional candidates.

C3.7.5.2 Management

(a) The successful contractor must keep site records regarding the part/full occupational qualification learners', trade qualification learners', work integrated learners' or candidates' (delete that which is not applicable) progress, site attendance, hours worked and other relevant information as required by the Standard.

(b) The successful contractor shall provide the required number of appropriately qualified mentors to the maximum number of part/full occupational qualification learners, trade qualification learners, work integrated learners in the proportion as specified in the Standard.

(c) The successful contractor shall provide a supervisor to manage the training of the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates.

(d) The successful contractor shall submit to the employer's representative a baseline training plan in the specified format (Pro-forma A2) for the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates 30 days of start of the contract.

(e) The successful contractor shall submit to the employer's representative project interim report in the specified format (Pro-forma A3) on the progress of each of part/full occupational qualification learner, trade qualification learner, work integrated learner, candidate every three months.

(f) The successful contractor shall submit to the employer's representative the names and particulars in the specified format (Pro-forma A4) of the supervisor, mentors for the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates within 30 days of start of the contract.

(g) The successful contractor shall keep a daily record of all the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates on site and their daily activities and shall be made available to the employer's representative on request.

(h) The successful contractor shall submit to the employer's representative the reports on the progress and status of the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates with the monthly invoice for the payment certificate.

(i) The successful contractor shall have health and safety inductions for all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.

(j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.

(k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates at the start of their employment on site.

(l) Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 - List of cidb accredited SDAs). The contractor shall ensure that no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

C3.7.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME (NYS)

The National Youth Service Training and Development Programme is *applicable* to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Monthly reports are to be submitted to the Employer's Representative.

Failure by the contractors to achieve the specified number to be trained in the NYS section of the CPG section within the Bills of quantities will result in a payment reduction as per bill of quantities per person, excluding VAT unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.7.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is *applicable* to this project.

Where labour intensive work is specified in the Bill of Qualities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

Failure by the contractor to achieve the specified value of the Labour Intensive Participation Goal as stipulated within the Bills of Quantities will result in a **thirty percent (30%)** penalty of the value of the works not done by means of labour intensive methods, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

Employer's objectives:
The employer's objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines.

Labour-intensive works:
Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-intensive competencies of supervisory and management staff:
Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/ Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent QCTO qualifications (See Appendix C) at NQF outlined in Table 1

C3.7.7.1 GENERIC LABOUR-INTENSIVE SPECIFICATION

Contractors are referred to the Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Publics Works Programme (EPWP) for the generic labour-intensive specification applicable to the contract.

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- trenches having a depth of less than 1.5 metres
- stormwater drainage
- roads
- sidewalks and non-motorised transport infrastructure
- water and sanitation

Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail

Hand excavatable material

Hand excavatable material is:

a) granular materials:

i) whose consistency when profiled may in terms of Table 3 be classified as very loose, loose, medium dense, or dense; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

i) whose consistency when profiled may in terms of Table 3 be classified as very soft, soft, firm, stiff and stiff / very stiff; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

1) A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.

2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 3: Consistency of materials when profiled

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	**DESCRIPTION**	**CONSISTENCY**	**DESCRIPTION**
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.

Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

Trench excavation
All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)
Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers;
a) to ninety percent (90%) Mod AASHTO;
b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than ten (10%) gravel of size less than 10mm and contains no isolated boulders, or
c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation
All excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

Clearing and grubbing
Grass and bushes shall be cleared by hand.

Shaping
All shaping shall be undertaken by hand.

Loading
All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the greatest extent possible.

Haul
Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Offloading
All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage.

Spreading
All material shall be spread by hand.

Compaction
Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required or for large areas.

Grassing
All grassing shall be undertaking by sprigging, sodding, or seeding by hand.

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand.
Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.
Grout shall be mixed and placed by hand.

Manufactured Elements
Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

C3.8 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

C.3.9 Submission of Monthly Local Material Utilisation Report (Local Content)

Submission of Monthly Local Material Utilisation Report (Local Content) is *applicable* to this project.

The contractors shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account.

Failure by the contractors to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. Allowance must be made for submitting monthly reports illustrating the value of local material utilisation report.

Examples of calculating CPGs and related penalties

CPGs values are based on the Tender Amount at the time of the award. Determining the actual values is based either on the Tender Amount including allowances and Vat or the Tender Amount at the time of award excluding allowances and VAT, where Allowances include the following:

- Provisional amounts
- CPG allowances
- Nominated and/or selected subcontractors
- Contract price adjustment (Not provided for within the B of Q by NDPWI)
- Contingency amounts (Not provided for within the B of Q by NDPWI)

CPG values in the CPG Bill of Quantities Section will be recalculated based on the "Tender Amount" or the "Contract Amount" which ever applicable and the provisional amounts adjusted accordingly. Sanctions (penalties) are applicable to all CPGs where the contractor fails to achieve the minimum specified requirements, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. No penalties will be applied should the CPG value, based on the original "Tender Amount" or the "Contract Amount", has been achieved.

1.1 Targeted Local Building Material Manufacturers CPG

When applicable, the CPG is expressed as a percentage of the "Contract Amount", i.e. the Tender Amount

at the time of award excluding allowances and VAT.

CPG calculation example:
"Tender Amount" = R150 Mil all inclusive of allowances and VAT
"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG to be achieved = 5% as specified in the Scope of Works (PG01.1)
CPG target value = R130 Mil x 5% = R 6,5 Mil (Value of material to be purchased from local manufacturers, excluding VAT)

Calculation of penalty:
Percentage penalty applicable = 10% as specified in the Scope of Works (PG01.1)
CPG target value = R6,5 Mil excluding VAT
CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT
Penalty = R1 Mil x 10% = R100 000 excluding VAT

1.2 Targeted Local Building Material Suppliers CPG

When applicable, the CPG is expressed as a percentage of the "Contract Amount", i.e. the Tender Amount at the time of award excluding allowances and VAT.

CPG calculation example:
"Tender Amount" = R150 Mil all inclusive of allowances and VAT
"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG to be achieved = 5% as specified in the Scope of Works (PG01.1)
CPG target value = R130 Mil x 5% = R 6,5 Mil (Value of material to be purchased from local suppliers, excluding VAT)

Calculation of penalty:
Percentage penalty applicable = 20% as specified in the Scope of Works (PG01.1)
CPG target value = R6,5 Mil excluding VAT
CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT
Penalty = R1 Mil x 20% = R200 000 excluding VAT

1.3 Targeted Local Labour Skills Development CPG

When applicable, the CPG is expressed as a percentage of the total number working days required to complete the Works.

CPG calculation example:
"Tender Amount" = R150 Mil all inclusive of allowances and VAT
"Contract amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
Number of working days required to complete the Works based on the construction period = 600 days
CPG percentage participation to be achieved = 30% as specified in the Scope of Works (PG01.1)
Required number of working days training to be provided = 180 days (600 x 30%)

Calculation of penalty:
Payment reduction = R 5 000 per day for not providing training as specified in the Scope of Works (PG01.1)
CPG = 600 working days x 30% = 180 working days training to be provided
CPG Achieved = 160 days (20 days shortfall where no training was provided)
Penalty = 20 days x R5 000 payment reduction per day= R100 000 excluding VAT

1.4 Cidb BUILD Programme: Enterprise Development

When applicable, the Enterprise Development CPG expressed as a percentage of the "Contract amount" = Tender amount at the time of award excluding allowances and VAT. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of an amount specified in the Scope of Works (PG01.1) per working day where training was not provided.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of beneficiaries to be trained is dependent on the "Contract Amount" as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will therefore be adjusted in terms of the "contract Amount", the number of beneficiaries to be trained and the

actual cost for providing the training.

Part 1: Calculation of 5% CPG example:
"Tender Amount" = R150 Mil all inclusive of allowances and VAT
"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG percentage participation to be achieved = 5% as specified in the Scope of Works (PG01.1)
CPG value = R6,5 Mil (Value of work to be subcontracted to emerging enterprises)

Calculation of penalty
Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.1)
CPG Minimum 5% = R6,5 Mil
Achieved = R5,5 Mil (Only subcontracted work to the value of R5,5 Mil, i.e. R1 Mil shortfall)
Penalty = R1 Mil x 30% = R300 000 Excl. VAT

Part 2: Calculations in terms of training to be done:
The number of enterprises to be developed is subject to the contract amount and the apportionment of the work as per Example 1 below.
Number of enterprises to be trained = 6 x 1 GB subcontractors
Total cost for training = R 1 660 000

Calculation of penalty
Total number of enterprises to be trained = 6
Total number trained = 4 (2 Shortfall)
Training cost per beneficiary = R1 660 000 / 6 = R 276 666,67 per beneficiary
Penalty = R 276 666,67 x 2 x 30% = R166 000 Excl. VAT

B of Q Item	Description	Unit	Rate	Quantity	Amount (R)
5	**Enterprise Development**				
5.1	Enterprise Development of Targeted Enterprise or JV partners				
5.1.1	Appointment of training co-ordinator	Per Quarter	45 000	8	360 000
5.1.2	Appointment of Mentor /Training Service provider	Per Quarter	135 000	8	1 080 000
5.1.3	Needs Analysis and Enterprise Development Plan per Targeted Enterprise	No.	5 000	6	30 000
5.1.4	Monitoring and Interim reporting per targeted enterprise	Per Quarter	20 000	8	160 000
5.1.5	Project Completion report per Targeted Enterprise	No.	5 000	6	30 000
	Provisional Sum to be carried over to CPG bill of quantities				**1 660 000**
	"Contract amount" Tender amount excl. allowances and VAT.	130 000 000			
	CPG Monetary value (5%) to be subcontracted to beneficiaries for training	6 500 000			
	No of enterprises based on the CPG value	6	Grade 1 / 2 GB/CE,ETC.		
	Contract period (months)	24			

Note: Rates to be determined by PQS and adjusted to accepted quotation amounts

1.5 Cidb BUILD Programme: Skills Development (Principal contractor including subcontractors and consultants)

When applicable, the contract skills development participation goals, expressed in Rand, shall be no less than the "contract amount" multiplied by a percentage (%) factor for the applicable class of construction works.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of beneficiaries to be trained is dependent on the "Contract Amount" as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will therefore be adjusted in terms of the "Contract Amount", the number of beneficiaries to be trained from which *Method* and the actual cost for providing the training.

CPG Calculation

Table 2: Contracting skills development goals for different classes of engineering and construction

works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 7)

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 and 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

"Contract amount" = Tender amount at the time of award excluding allowances and expenses, and VAT

Contractor CPG:

CPG calculation

"Contract amount" x factor from Table 3 above.

CPG calculation example:

"Tender Amount" = R150 Mil for GB, all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

Factor for GB = 0,5% (as per Table 2 above)

CPG in R value = R130 Mil x 0,5% = R650 000 i.e. total notional cost of training to amount to R650 000

Calculation of penalty:

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.1)

CPG value = R650 000

Achieved = R550 000 = R100 000 Shortfall

Penalty = R100 000 x 30% = R30 000 Excl. VAT

Calculations based on "Contract Amount" after bid award and appointment of beneficiaries

Actual CPG training requirement value after award upon selecting method/s of training and appointment of beneficiaries = R676 000 (Table 4 below) and the provisional amount allowed for to be adjusted accordingly. The new monetary value of training required will then form the basis for determining penalties applicable. No **penalties will be applied should the CPG value, based on the "Contract Amount" be achieved.**

Table 4: Notional cost recalculation upon appointment of beneficiaries.

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 10)

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost / learner / year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	2	R23 000	R92 000	R184 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	2	R61 500	R246 000	R492 000
Total	4			R676 000

Note: the required CPG will be recalculated based on the awarded Tender amount and "Contract Amount" once the beneficiaries have been appointed and actual costs are known

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI as published by Stats SA. The rates will be adjusted as an adjustment to the provisional amounts should the rates increase after bid award or during the construction period

1.6 National Youth Service Programme (NYS) CPG

When applicable, a separate NYS Bill of Quantities will be included in the tender documentation will indicate the number of beneficiaries to be trained.

Calculation of penalty:

Payment reduction per person not trained as stipulated in the NYS Bill of Quantities = R 2 500 per person.
Total number of NYS Beneficiaries as stipulated in the NYS Bill of Quantities = 25
Total Number of NYS beneficiaries trained = 20 (shortfall of 5 beneficiaries)
Penalty = 5 x R2 500 = R12 500 Excl. VAT

1.7 Labour Intensive Works CPG

When applicable, the work to be done by way of Labour intensive methods are specified in the Bills of Quantities with a "LI".

CPG calculation example:
"Tender Amount" = R150 Mil all inclusive of allowances and VAT
"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG value = R10 Mil (Total value of labour-intensive works specified in the Bills of Quantities)

Calculation of penalty:
CPG value = R10 Mil
Percentage penalty applicable = 30% as specified in the PG01.1 Scope of Work
CPG Achieved = 9 Mil (R1 Mil shortfall)
Penalty = R1 Mil x 30% = R300 000 Excl. VAT

Additional Specifications

SA	:	General Maintenance
SB	:	Operating and Maintenance Manuals
SC	:	General Decommissioning, Testing and Commissioning Procedures
SD	:	General Training
SF	:	General Operation
SH	:	HIV / Aids Requirements
SI	:	Occupational Health and Safety (OHS Act)
SJ	:	Covid- 19 Occupational Health and Safety Guidelines for Management of Risk on Construction Sites
SN	:	Implementation of Labour-Intensive Infrastructure Projects Under the Expanded Public Works Programme (EPWP)
SS	:	Site Specific Inventory

ADDITIONAL SPECIFICATION

SA GENERAL MAINTENANCE

CONTENTS

SA 01	SCOPE
SA 02	MAINTENANCE APPROACH
SA 03	MAINTENANCE REQUIREMENTS
SA 04	MAINTENANCE CONTROL
SA 05	COMMUNICATION
SA 06	PERFOMANCE MEASUREMENT
SA 07	PREVENTATIVE MAINTENANCE
SA 08	MANDATORY PERIODICAL SERVICES
SA 09	FREQUENT SERVICING OF INSTALLATIONS
SA 10	MEASUREMENT AND PAYMENT

SA 01 SCOPE

Maintenance of the specified systems, services and/or parts of buildings and infrastructure shall all be referred to as "Maintenance of an Installation". Maintenance of all completed installations shall ensure reliable functioning and optimum service life thereof. Monthly maintenance responsibilities for each installation including all units and components as specified shall commence with access to the Site.

Maintenance of an installation shall be performed in accordance with the Technical and Particular Specifications, the Operating and Maintenance Manuals (where applicable) and the Maintenance Control Plan.

Remuneration for maintaining "installations" (systems, services and/or buildings and parts of the infrastructure) in good functional condition is provided for in the Schedules of Quantities by means of monthly payment items.

This Additional Specification covers maintenance requirements, development of a maintenance control plan, identification of equipment, site maintenance administration, maintenance performance measurement, as well as the items for measurement of the Contractor's service level and resulting payment.

The residential area at the Boesmansnek, Ramatselitso and Ongeluksnek Land Ports of Entry form part of an existing Repair and Maintenance Programme.

The various installations are in perfect working order. This places the emphasis of this Contract on maintenance.

No distinction will be made between prior to practical completion and completed installations for the purpose of maintenance.

The maintenance of the operational area for the plumbing and building electrical work will be divided into Section A and Section B as follows:

The Contractor will have the opportunity at the start of the contract to point out items which are not in perfect working order which in turn will be serviced/repaired as per the relevant tendered

rates. The Contractor must submit a written report of these items within 28 days of the date of site hand over. Failing to submit the report within the allowed time will render any and all defective items part of the Contractor maintenance responsibly as set out in the relevant Technical and Particular Specifications.

The Contractor will further more at the start of the contract perform annual maintenance on all the installations as per the items listed in the different Technical and Particular Specifications as part of the Contractor's maintenance obligation.

Maintenance of each of these installations will be the responsibility of the Contractor and will be evaluated on a monthly basis by the Engineer. The remuneration for maintenance work and responsibilities will be certified accordingly.

SA 02 MAINTENANCE AND SERVICING APPROACH

The Contractor is expected to be represented on **site full time**. Contractor must allow for the appointment of a qualified project manager to be available on site on a full time basis for the duration of the contract.

SA 02.01 ROUTINE PREVENTATIVE MAINTENANCE VISITS

When submitting the maintenance control plan (MCP), the Contractor shall schedule "routine preventative maintenance visits" to the site. A "routine preventative maintenance visit" shall be scheduled for the intervals as indicated in the table below. The duration of the "routine preventative maintenance visits" will depend on a time required to complete all routine preventative maintenance, corrective maintenance as well as breakdowns logged during the course of the month as specified. However, a "'routine preventative maintenance visit" may never be less than the minimum period specified in the table below. The Engineer will carry out a site inspection on any arbitrary day and measure the quality of maintenance and servicing. The Engineer will also inspect correction/repair of breakdowns that were logged with

INSTALLATION	FREQUENCY OF ROUTINE MAINTENANCE VISIT	MINIMUM DURATION OF ROUTINE MAINTENANCE VISIT
Boesmansnek, Ramatselitso and Ongeluksnek Land Ports of Entry	**7 days a week** (Monday - Sunday)	8 hours

* Note: Operational hours is not limited from above, and will vary from season to season. Operational hour changes will be confirmed by the User Client

The Contractor should indicate to the Engineer within 21 days after the site handover the days of the week which he will visit the site for his scheduled routine preventative maintenance visit including the various resources allocated for the different preventative maintenance actions, site keeping and cleaning services to be performed (at least 6 months in advance). Qualified electrician and plumber should also be available for the above-mentioned dates.

SA 02.02 EMERGENCY BREAKDOWN VISIT

Whenever an emergency breakdown is logged with the contractor, an "emergency breakdown repair visit" shall be carried out by the contractor to attend to the repair of the emergency breakdown within **12 hours** after it was logged with the contractor.
Remuneration for the material and labour required to attend to repair of the emergency breakdown shall be deemed included in the payment item for maintenance of an installation based on a point system and measured monthly. Payment for the "emergency breakdown repair visit" will be measured separately in the schedule of quantities to cover the cost of the call-out, in terms of travel and accommodation cost, including travel time and any cost associated with the call-out. No payment for the "emergency breakdown repair visit" shall be done if the call-out coincides with any of the monthly visits as listed in SA 02.01.

The Contractor will only be remunerated for emergency breakdown repair visits upon instruction of the Engineer or his representative.

Typically examples of "emergency repair breakdown visits" would be:

- A breakdown of any standby power generator that prevents the standby power generator from operating at its capacity and meeting the demand.
- A breakdown of any water supply pump or any other component of the water supply or bulk water installation that affects the water supply to such an extent that it cannot meet the demand.
- A breakdown of the water reticulation network or sewer reticulation network that affects water supply or sewer removal to such an extent that the service is disrupted to any site.
- A breakdown of site electrical or building electrical that disrupts power supply to a building (including residential unit)
- A breakdown of a geyser that prevents it from supplying hot water as per specification
- Any other breakdown that can be regarded as having the potential to cause damage to equipment or property and is included in the scope of work to be maintained and serviced by the Contractor, as per specifications. *The Engineer or his representative will be responsible for categorising a breakdown as an emergency.*

SA 03 MAINTENANCE REQUIREMENTS

SA 03.01 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall maintain the complete installations for the 36-month Contract period.

Maintenance implies and shall include monthly preventative maintenance, corrective maintenance, as well as breakdown maintenance on all components of the specified installations.

The maintenance control plan (specified in Clause SA 03) will be developed by the Contractor, to schedule the frequency of routine inspections and format of reports. The Contractor shall carry out inspections on the equipment as detailed in the Technical and Particular Specifications and the maintenance control plan. Each inspection, test or breakdown shall be recorded in an approved format and listed in a quarterly report (part of the maintenance control plan).

As part of repair of each installation, the Contractor shall submit a set of Operating and Maintenance Manuals where applicable. The Contractor shall ensure through training that the operating and maintenance personnel are conversant with the instructions as presented in the Operating and Maintenance Manuals. Continued training shall be included in the scope of

maintenance work for the duration of the 36-month Contract, in accordance with Additional Specification SD: General Training.

The Operating and Maintenance Manuals, as approved by the Engineer, shall be used as a basis of preventative maintenance. The Contractor shall perform all preventative and corrective maintenance as described in the Operating and Maintenance Manuals. This shall be in accordance with the Technical and Particular Specifications.

The Contractor shall, as part of his maintenance responsibilities repair or replace faulty equipment upon logging of a breakdown, within the down-time as defined in Clause SA 05.02 at the Contractor's cost, except in the event of replacement being labelled as exceeding liability as specified in Clause 63 of the Project Specific Conditions of Contract, in which case the Department of Public Works will bear part of the costs.

The Contractor shall rectify any faulty condition of which he becomes aware, even if it has not been logged. Such rectification shall also be logged and listed in the quarterly report.

SA 03.02 CONDITIONS FOR EXCEEDING THE CONTRACTOR'S LIABILITY DUE TO OPERATIONAL DAMAGE BREAKDOWNS

Irrespective the definition of operational damage given in the Oxford dictionary, it shall be defined for the purpose of this clause as being any damage caused on purpose or through negligence by the User Client's employees, suppliers, subcontractors, etc for any reason whatsoever. For the purpose of this clause, operational damage and vandalism shall have the same meaning. Where repair work is necessitated as a result of operational damage caused by User Clients or their associates, the Contractor will be requested to:

(a) perform work, using tendered rates for the supply, delivery and installation of material forming part of the repair work schedule, within the maximum down-time allowed for operational damage, where the Engineer rules that the damage has been caused by incorrect operation;

(b) submit one (1) quotation for repair and/or replacement of the damaged unit, where tendered rates are not available and where the Engineer rules that the damage has been caused by incorrect operation;

(c) perform the work on receipt of an order from the Engineer, within the time offered as part of the quotation, and

(d) notify the Engineer well in advance of completion of the repair work in order to enable inspection.

The responsibility of determining whether damage to the installation was caused by people other than employees or associates of the Contractor shall rest with the Engineer.

Damage caused by the employees, suppliers, subcontractors, etc of the Contractor, shall be repaired by the Contractor at his own cost.

SA 03.03 **CONDITIONS FOR EXCEEDING THE CONTRACTOR'S LIABILITY ABOVE MARGINAL BREAKDOWN COST**

In the event where the cost for the repair or replacement of any single component/subassembly where a breakdown has occurred due to a single failure, or where the cost for replacing a single item of equipment completely, exceeds the value of R15 000,00 (transport, accommodation and travelling cost excluded), the liability of the Contractor is limited to the value of R15 000,00. The additional cost above the value of R15 000,00 will be paid for by the Employer provided that conditions 1, 2 and 3 below have been met.

1. The defective part/component/subassembly or machine must be identifiable as a single subassembly or component and not the total of a number of small defects or breakdowns on subassemblies/components on any one or more machines.

   Examples of subassemblies/components are the following:

   (a) Should the wiring or bearings on an electric motor fail, the complete motor must be removed for repairs and the cost for the repairs on the complete motor will be regarded as repairs on a single subassembly/component.

   (b) A starter motor, for example, is a subassembly, which can be removed from the machine for repairs. The repairs on the starter motor together with the repairs on the main bearings will not be regarded as a repair on a single subassembly/component. If the complete diesel engine is replaced with its associated subassemblies the replacement of the complete unit will be regarded as a single component.

   (c) A pump as a whole is regarded as a single component. The pump and driving machine on long coupled pumps are regarded as separate subassemblies. Pumps and motors on close-coupled equipment are regarded as a single component. The pump and motor of a sump pump are therefore regarded as a single component.

   (d) Control equipment for the control of a single item, with the sensing device, the controller itself and the final controlled variable are regarded as a single component of the system. The repairs on any one item on a controller have an influence on the rest of the control equipment and must after the replacement be commissioned again as a unit.

2. The Contractor shall submit a written report to the Engineer for approval. This report shall contain the following information:

   (a) The make and model number of the machine serviced/inspected/ repaired/replaced;

   (b) The identification number of the machine;

   (c) A description or name and part number of the defective part/component or subassembly;

   (d) A statement on whether the component could be repaired, together with a cost estimate;

   (e) A quotation valid for a minimum period of 60 days if the component/part/subassembly has to be replaced or repaired by an outside firm. If the subassembly/machine is to be repaired or replaced by an outside company, the Contractor shall supply one (1) quotation for such parts/repairs or a quotation from any sole supplier. Only an original quotation will be accepted. The mark-up on such

work shall be a percentage as tendered and shall be applicable to the total cost (VAT excluded) of repair work by outside companies;

(f) The expected urgency for the replacement or repairs, and

(g) The delivery time of a new component/subassembly/machine or delivery times on spares required to repair the defective component/ subassembly.

3. A written approval to proceed with the work must be issued by the Department. Copies of the original VAT invoices from outside companies for all repairs or spare parts supplied must be attached to the Contractor's invoice.

SA 03.04 EMERGENCY BREAKDOWN REPAIR VISIT

Whenever an emergency breakdown is logged at a site where no access has been given the Contractor, an "emergency breakdown repair visit" shall be carried out by the Contractor to attend to the repair of the emergency breakdown within 24 hours after it was logged with the Contractor.

Remuneration for the material and labour required to attend to repair of the emergency breakdown shall be deemed included in the payment item for maintenance of an installation based on a point system and measured monthly. Payment for the "emergency breakdown repair visit" will be measured separately in the schedule of quantities to cover the cost of the call-out, in terms of travel and accommodation cost, including travel time and any other cost associated with the call-out.

The Contractor will not be remunerated for emergency breakdown repair visits once the specific installation or site has been completed (Completion Certified). The contractor will be remunerated for maintenance and attending to emergency breakdowns as per his payment item for maintenance of a completed installation based on a point system as measured monthly.

Typical examples of "emergency repair breakdown visits" would be:

- A Breakdown of any standby power generator that prevents the standby power generator from operating at its capacity and meeting the demand.
- A Breakdown of any water supply pump or any other component of the water supply or bulk water installation that affects the water supply to such an extent that it cannot meet the demand.
- A Breakdown of the water reticulation network or sewer reticulation network that affects water supply or sewer removal to such an extent that the service is disrupted to any building.
- A Breakdown of site electrical or building electrical that disrupts power supply to a building (including residential unit).
- A Breakdown of a geyser that prevents it from supplying hot water as per specification.
- Any other Breakdown that can be regarded as life threatening or having the potential to cause damage to equipment or property and is included in the scope of work to be maintained by the Contractor, as per the technical and particular specifications. The Engineer will be responsible for categorising a breakdown as an emergency.

SA 03.05 COMPONENTS INCLUDED IN MAINTENANCE SCOPE

The following main sections of a facility with their subsections are as set out in the Technical Specifications and Particular Specifications where applicable and in the Schedule of Quantities and will each be deemed "an installation". Maintenance, as specified, will be applicable to all of these installations.

INSTALLATIONS: BOESMANSNEK, RAMATSELITSO AND ONGELUKSNEK PORTS OF ENTRY

- Installation C1.M: Structural and Building Works
- Installation C2.M: Plumbing, Drainage and Wet Services
- Installation C3.M: Wastewater and Sewer Networks
- Installation C4.M: Fencing, Cleaning and Site Keeping
- Installation C5.M: Bulk Water & External Water Reticulation
- Installation C6.M: Roads and Storm water Drainage
- Installation E1.M: Building electrical and Site Electrical
- Installation E2.M: External Lighting
- Installation E3.M: Standby Power
- Installation M1.M: Heating, Ventilation and Air-Conditioning Systems
- Installation M2.M: Conventional Fire-Fighting Equipment

Building Structural and Building related installations are excluded from the maintenance portion of the contract. The Contractor will however be instructed during the maintenance phase to repair certain damaged structural items. The Contractor will be remunerated for the structural items repaired as per his tendered rates in the schedule of quantities No additional fixed or time related P&G may be claimed for the repair work to damaged structural items.

SA 03.06 COMMENCEMENT OF MAINTENANCE PERIOD

Maintenance responsibilities for an installation prior to practical completion of repair work shall include maintenance of all individual units, equipment or components thereof, for which no repair work is required (as per the contract document) or for which the repair work has not yet started, and shall commence with access to the installation.

Where access to an installation with a view to commence repair work is delayed, then the maintenance responsibilities which in such cases will consist of keeping the installation in the condition it is in, shall commence immediately at the start of the Contract.

Such maintenance before access is obtained, shall consist for example of fixing leaks without replacing pipework or opening a blocked pipeline without further altering or inspecting such pipes.

The Contractor shall accept full maintenance responsibilities for each completed installation upon issue of a Certificate of Practical Completion for repair work of that installation.

The preliminary construction programme differentiates between commencement of maintenance on various installations.

SA 03.07 **PREVENTATIVE MAINTENANCE: DEFINITION**

This entails the rendering of services and servicing of equipment according to a predetermined maintenance control plan to:

(a) replace and service components of equipment, units or parts thereof for each installation at prescheduled moments regardless of condition;

(b) readjust, reset, clean, corrosion protect all components of equipment, units or parts thereof for each installation, and

(c) carry out all implied actions to maintain installations in their present functional condition.

Preventative maintenance shall be aimed at minimisation of breakdowns.

SA 03.08 **CORRECTIVE MAINTENANCE: DEFINITION**

This entails regular observation of the equipment, identifying pending breakdowns, maladjustment or anomalies of equipment, units or parts of installations and subsequent action to restore installations to the functional condition as before the breakdown.

SA 03.09 **BREAKDOWN MAINTENANCE: DEFINITION**

This entails repair and/or replacement of defective equipment, units or parts of installations following a breakdown that leaves the installation inoperable or unsafe, and subsequent action to restore installations to their normal functional condition, within the maximum down-time allowed.

SA 03.10 **OPERATIONAL DAMAGE BREAKDOWN MAINTENANCE: DEFINITION**

This entails repair and/or replacement of defective or damaged equipment, units or parts of installations following a breakdown that leaves the installation inoperable or unsafe, and subsequent action to restore installations to their normal functional condition, within the maximum down-time allowed.

Typical examples of "operational damage breakdown visits" would be:

- A Breakdown of any structural items such as locks, window handles and stays, windows, doors and any other structural related items.
- A Breakdown of any plumbing, drainage or sanitary ware related items.
- A Breakdown of any electrical related items.
- Any other damaged items not caused by normal wear and tear.

SA 03.11 **SITE MAINTENANCE RECORD KEEPING**

The Contractor shall provide and maintain hard-cover A4 maintenance files for each installation for the duration of the Contract. All schedules, checklists, breakdown reports, preventative maintenance records, component replacement records and quarterly reports shall be filed, together with information regarding repairs exceeding the Contractor's liability, as set out in SA 03.02 and SA 03.03.

Site maintenance records shall be submitted at each monthly meeting.

SA 03.11 OPERATIONAL DAMAGE BREAKDOWN DEFINITION

SA 32.12.01 Labour

Competent personnel that have been trained by the Contractor, in accordance with Additional Specification SD: General Training shall execute all maintenance work.

SA 03.12.02 Equipment

All tools and equipment required for maintenance work shall be supplied by the Contractor at his cost (except where otherwise provided).

SA 03.12.03 Material

All material, spare parts, components, equipment and appurtenances necessary for the complete maintenance of each installation shall be supplied and installed by the Contractor at his cost, to a maximum value per part/subassembly as specified in the Special Conditions of Contract for exceeding Contractor's Liability.

Materials as provided for in the Schedule of Quantities, shall be supplied and delivered by the Contractor at the tendered rates upon order of the Engineer only, and shall be free-issued to the User Client for own use. The Contractor shall inform the Engineer of all scheduled deliveries to arrange official hand-over with the User Client.

SA 03.13 IDENTIFICATION OF EQUIPMENT

A unique identification number will be allocated only to each mechanical equipment item forming part of the installation. This identification number will be allocated and administered in collaboration with the User Client and must be described in the maintenance control plan.

Reference shall be made to identification numbers in the maintenance control plan, operating and maintenance manuals and during all maintenance activities, including the logging of breakdowns and other correspondence. Identification numbers shall also be indicated on as-built drawings.

SA 04 MAINTENANCE CONTROL

SA 04.01 SCOPE

Maintenance quality control shall be the responsibility of the Contractor. The Contractor shall introduce a maintenance control plan to assist him in ensuring that preventative, corrective and breakdown maintenance are performed as described in the operating and maintenance manuals and Technical and Particular Specifications.

SA 04.02 PRELIMINARY MAINTENANCE CONTROL PLAN

A preliminary version of the maintenance control plan shall be submitted with the programme and the framework of the preliminary version shall be as close as possible to that of the final maintenance control plan as specified in SA 03.03 below. Detail contained in this preliminary maintenance control plan shall include:

(a) Actual time that a representative of the Contractor will be present on Site for the duration of the maintenance period;

(b) the scope and frequency of routine inspections

(c) repair methodology

(d) details of training plan to be implemented in accordance with Additional Specification SD

SA 04.03 **MAINTENANCE CONTROL PLAN**

(a) The maintenance control plan shall be based on the Contractor's preliminary maintenance control plan, and shall be bound in a neat, A4-sized, ring-bound document with a cover page and back cover. The contents of the document shall be indexed.

In drawing up the document, the Contractor may reproduce relevant paragraphs and clauses from any of the specifications forming past of the Contract documents, but should there be any discrepancies between such clauses and paragraphs in the maintenance control plan and those in the Contract documents, those in the Contract documents shall be regarded as being correct and shall apply.

(b) To ensure that the Engineer is satisfied that the Contractor understands the purpose and advantage of carrying out maintenance work according to a maintenance control plan he shall, as an introduction to the control plan document, set out his views as to what he believes the implementation of a maintenance control plan will achieve.

(c) The maintenance control plan shall also contain the following:

(i) A summary of the repair and maintenance work to be carried out under the Contract giving details of the conditions of the various installations at the facility(ies) affected by the activities under the Contract. The Contractor shall bear in mind that maintenance work may have to be carried out before the repair phase of the installation has been entirely completed and the summary mentioned above shall therefore differentiate between maintenance work before and after the repair phase has been completed.

(ii) Details of how the Contractor intends to carry out the various types of maintenance work especially breakdown maintenance should breakdowns occur.

(iii) Details of how the call centre works, as specified in clause SA 04 as well as all statistics of breakdowns, leakages, blockages, etc. available from the call centre for the installation and the age of the installation that has been taken into account in compiling the contents of the maintenance control plan.

(iv) A list of organisations and persons directly involved with the Contract or whose requirements have to be taken into account during the entire Contract Period such as the Department of Public Works, the User Client, the Consulting Engineer, the Contractor, the Local Authority, etc. Each person's position within his organisation as well as the applicable phone numbers shall be given.

(v) Details of monthly meetings to be hold with the Department of Public Works, the User Client, Contractor and Engineer;

(vi) Reports to be submitted after every routine inspection (all reports, checklists, breakdown records, score card results, etc. for each system of an installation shall be kept on the site in a hard cover file);

(vii) Procedures to address complaints and logged breakdowns;

(viii) Details of quarterly reports, summarising all inspections, together with inspection data such as nature of test, names of persons carrying out tests and inspection results. Detail of repairs and replacements, together with testing of repaired equipment shall also be reflected in this report, and

(ix) Assistance to be given by the Engineer with decisions regarding material, equipment and other recommendations.

(d) The codes of practice as set out in ISO 10006 and ISO 9004 for quality systems and management shall be used as a guideline for compiling a maintenance control plan. ISO accreditation is not a requirement in terms of this Contract.

(e) The maintenance control plan shall be upgraded when its contents are no longer representative of actual conditions.

(f) The Contractor shall check the contents of existing Operating and Maintenance Manuals (if available) and shall update or modify and then incorporate applicable data into his own manuals. Where no manuals exist, the Contractor shall draw up his own Operating and Maintenance Manuals.

Pertinent data contained in the Operating and Maintenance Manual may be transferred to the Maintenance control plan to make it a document which can be used as an independent handbook for maintenance work.

The Contractor is referred to the contents of paragraph (a) above regarding the reproduction of data, as this shall also be applicable to data reproduced from Operating and Maintenance Manuals.

SA 05 COMMUNICATION

The maintenance control plan (Clause SA 03) will provide, after agreement between the Contractor and the Engineer, for the following communication and complaint logging procedure:

(a) The Contractor shall establish a telephone and fax line and a cellular telephone connection to ensure that he can be reached at any time.

(b) The Contractor shall primarily be responsible for determining the items requiring preventative, corrective and breakdown maintenance, and shall communicate this information directly to his maintenance workforce.

(c) Should the Engineer or operating personnel of the User Client determine or suspect that preventative, corrective or breakdown maintenance is required, a call shall be logged through the call centre to reach the Contractor as soon as possible.

(d) Reaction times will be as described in Clause SA 05.02.

(e) All complaints of the User Client shall be reported to the Engineer via the call centre, as set out in the maintenance control plan, and the Engineer shall issue instructions to the Contractor. After the Contractor has attended to the complaint, the Engineer will provide feedback to the call centre both telephonically and via fax.

The call centre logs the details of the Engineer's call and provides feedback to the complainant.

SA 06 PERFORMANCE MEASUREMENT

The Contractor's performance shall be measured against the following parameters:

SA 06.01 SPECIAL TESTING OF AN INSTALLATION

The Engineer may at any time inspect any part of the entire installation. During Maintenance work, the Engineer shall at his discretion order special tests to be carried out on complete installations at intervals of not less than four months, to verify the satisfactory functional condition of the installation.

The Engineer reserves the right to select at random component equipment and trade practices to be tested by independent authorities for compliance with specifications as specified in this Contract document.

The Contractor shall provide all equipment, tools and instruments required for testing.

SA 06.02 MAXIMUM MAINTENANCE DOWN-TIME

After a complaint has been logged and forwarded to the Contractor, the Contractor shall be expected to minimise the maintenance down-time until the system component is fully operational to the satisfaction of the Engineer. Should the Contractor not respond within the maximum down-time, the Engineer may arrange, at the cost of the Contractor, for the necessary repair work to be done by others.

Should the actual down-time exceed the maximum down-time the Contractor shall be liable to a payment reduction for the difference between actual down-time and maximum down-time. This is reflected in the table below:

No.	REQUIRED MAINTENANCE	MAXIMUM DOWN-TIME ALLOWED	PAYMENT REDUCTION IF EXCEEDED
1.	Fatal Breakdown	1 hour	R1 000/hour
2.	Emergency Breakdown	12 hours	R2 000/day
3.	Ordinary Breakdown	7 days	R500/day
4.	Operational damage repair	7 days	R500/day

"Maximum down-time" shall mean the period of time allowed to repair a breakdown, and "actual down-time" shall mean the measured period from the instant when the breakdown was logged with the Contractor until the installation has been repaired to its functional specification.

"Immediate response repairs" shall imply breakdown maintenance repair work where no breakdowns are allowed at any time in terms of the Technical Specification.

"Emergency maintenance repairs" shall imply any breakdown maintenance repair work required to rectify a component or unit of the installation that disables the installation from functioning at its designed maximum requirement in terms of the Technical Specification.

"Ordinary maintenance repairs" shall imply all breakdown maintenance repair work required other than immediate response or emergency maintenance repairs.

"Operational damage repairs" shall imply all operational damage breakdown repair work required on any other damaged items not caused by normal wear and tear and shall also include and structural related breakdowns.

SA 06.03 PERFORMANCE-BASED PAYMENT

Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly maintenance payments for the various installations.

SA 06.03.01 Score-card

The Engineer shall inspect each installation monthly after Practical Completion of the repair phase of the installation. The Engineer shall use a score-card to measure the quality of preventative and corrective maintenance rendered by the Contractor during the preceding month, on all components that form part of the installation, in accordance with the maintenance specifications. The Engineer will record his inspection directly onto the score-card. The score-card shall serve to evaluate ten performance indicators each month.

SA 06.03.02 Performance indicators

Performance indicators shall be selected to measure the Contractor's service level of preventative and corrective maintenance.

The Engineer shall have the opportunity to select ten (10) performance indicators each month, which shall focus on the measurement of maintenance quality against the relevant specifications for the ensuing month. All ten (10) performance indicators are known to both the Engineer and the Contractor.

The Contractor shall aim to perform satisfactorily on all ten performance indicators. All indicators shall be selected from the scope of his normal preventative and corrective maintenance work and shall be based on the maintenance control plan and operating and maintenance manuals. The work shall either be satisfactory, or unsatisfactory, and the Contractor shall score one (1) or zero (0) respectively per indicator.

Performance indicators shall be used to focus on certain key aspects of the work and shall in no way limit the Contractor's responsibility to do all the required work.

SA 06.03.03 Satisfactory performance

The Engineer shall inspect the site on an arbitrary day to measure the quality of maintenance against the ten selected performance indicators. Should the Contractor score the maximum points (10) he shall receive his full maintenance payment for the installation. Should the quality of preventative maintenance, or components requiring persistent corrective maintenance be unsatisfactory according to the score-card, the Contractor may fail to achieve full payment due to a reduced service level. Each monthly payment for maintenance shall be subject to evaluation based on the score-card.

A copy of the score-card including a guideline for the use thereof is included in this Specification.

SA 07 PREVENTATIVE MAINTENANCE ACTIONS

The preventative maintenance actions for the various installations for preventative maintenance are described in this section. Remuneration for maintenance of the infrastructure shall be deemed included in the tendered monthly payment for the respective installations

The said maintenance and servicing work shall be executed in accordance with the relevant codes of the practise, standards, regulations, municipal laws and by-laws and the manufacturer's specifications and codes of practise.

The maintenance schedules and frequency shall be developed under the maintenance control plan to be instituted by the Contractor.

The maintenance and servicing work to be performed and executed shall include but not be limited to the items listed below. These actions and findings shall be logged and reported on the relevant approved schedules and reports forming part of the Maintenance Control Plan.

The Ports of Entry consists of various facilities, are listed in additional specification **SS: Site Specific Inventory**. The preventative actions required are divided into maintenance installations and grouped as follows:

1. Plumbing and Drainage

- SA 07.01 – Plumbing and Drainage Installations

2. Electrical Installations

- SA 07.02 – Electrical Installations

3. Fencing, Refuge Removal and Pest Control

- SA 07.03 – Fencing
  SA 07.04 – Refuge Removal and Pest Control

4. Cleaning and Site Keeping

- SA 07.05 – Cleaning and Site Keeping

5. External Water and Sewer Networks

- SA 07.06 – Water Distribution Networks
- SA 07.07 – Water Reservoirs and Storage Tanks
- SA 07.08 – Borehole Pump Systems
- SA 07.09 – Water Pump Systems
- SA 07.10 – Sewerage Networks

6. Roads and Stormwater Drainage

- SA 07.11 – Roads
- SA 07.12 – Stormwater Drainage

7. External Lighting and Standby Power

- SA 07.13 – External Lighting
- SA 07.14 – Low Voltage Distribution Networks
- SA 07.15 – Standby Power Systems

8. Heating, Ventilation and Air-Conditioning Systems

- SA 07.16 – Heating, Ventilation and Air-Conditioning Systems

9 Fire Fighting Equipment

- SA 07.17 – Fire Fighting Equipment

SA 07.01 **PLUMBING AND DRAINAGE INSTALLATIONS**

RAINWATER DISPOSAL SYSTEM

NO	PREVENTATIVE MAINTENANCE ITEM DESCRITPTION	MAINTENANCE FREQUENCY
1	Clean out and clear all rainwater gutters and full bores	Bi-monthly
2	Clean out and clear all catch pits, channel drains and floor outlets	Bi-monthly
3	Clean and unblock all pipes	Bi-monthly
4	Check alignments of gutters	Six-monthly
5	Check and inspect all rainwater outlet gratings and replace if necessary	Six-monthly
6	Check gutter and pipe bracketing systems	Four-monthly
7	Check and inspect manhole covers and frames for damage or missing	Monthly

SOIL AND WASTEWATER DRAINAGE SYSTEM

NO	PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Check, inspect and clean out all gullies	Monthly
2	Replace broken or missing gully gratings	Monthly
3	Check, inspect, repair or replace all manhole covers and frames	Bi-monthly
4	Check, inspect and repair manhole benching	Four-monthly
5	Check, inspect, repair or replace all inspection eyes, end caps and cleaning eye covers	Monthly
6	Check, inspect, repair or replace all bracketing systems	Four-monthly
7	Check, inspect, report and unblock any blockage that occurs	Monthly
8	Check, inspect, service, repair/replace all vacuum and two-way vents	Four-monthly

DOMESTIC WATER DISTRIBUTION AND RETICULATION SYSTEMS

NO	PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Check, inspect, report and repair all leaks	Monthly
2	Replace all valve gaskets, gland packings and seals	Annually
3	Check, inspect, repair and readjust all pressure-reducing valves	Annually
4	Check, inspect and test operation of all valves on site	Four-monthly
5	Clean out all strainers	Monthly
6	Check, inspect, service test and repair/replace all safety and expansion release valves	Six-monthly
7	Check, inspect, repair or replace all bracketing systems	Four-monthly
8	Check, inspect, service, repair/replace all air release valves and vacuum breakers	Four-monthly
9	Check, service, repair or replace all ball float valves	Four-monthly
10	Check, inspect, test, service and repair all geyser installations	Four-monthly
11	Check, inspect, test, service and repair all non-return valves	Four-monthly

SANITARY AND BRASSWARE EQUIPMENT

NO	PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Inspect, repair/replace WC seats and covers	Monthly
2	Replace all tap washers	Annually
3	Replace all tap gland packings	Annually
4	Check, inspect, repair, fix and where necessary replace sanitary ware mountings and brackets	Four-monthly
5	Check, inspect, service, repair/replace all cistern flushing mechanisms	Monthly
6	Check, inspect, service, repair/replace all brassware	Four-monthly
7	Check, inspect, service, repair/replace all sanitary ware	Four-monthly
8	Check, inspect, service, repair, readjust all flushing valves	Four-monthly
9	Repair all flushing valve internal parts with replacement kits	As occur
10	Stained equipment to be cleaned with approved manufacturer's cleaning agent	Six-monthly
11	Check, inspect, report and repair all leaks	Monthly
12	Check, inspect, repair/replace all shower gratings	Four-monthly
13	Check, inspect, repair, service, replace all missing valves	Six-monthly
14	Replace missing tap handles	As occur
15	Replace missing bath, basin, sink, plug, etc	As occur

SA 07.02 ELECTRICAL INSTALLATIONS

SA 07.02.01 Monthly maintenance

Check operative protective and monitoring devices.

Verify operation of switching elements and meters

Check lamp operation

Measure phase voltages and currents in distribution board and record values in Record book

Inspect and repair the following:

- any visible damage to the installations
- setting of protective and monitoring devices

Ensure upkeep of the labelling of the distribution board, equipment, cabling and wiring

Ensure presence of labelling on face plates or bodies of light switches, socket, outlets and isolators.

SA 07.02.02 Annual maintenance

Service all luminaries, distribution boards, socket outlets, isolators, light switches, etc.

Witnessed testing of all earth leakage protection units on all socket outlet units.

Visually inspect the following and repair if required:

- Connection of cables and conductors including earthing and bonding.
- Presence of appropriate devices for isolation and switching.
- Correct connection of socket outlets, light switches, isolators, lamp holders, etc.

SA 07.03 FENCING

Maintenance shall include replacing of components, fixing defects, tightening, redressing or any other actions or rectifying measures necessary for complete operation of the fencing installation. This shall include keeping the installation free of litter or any other element interfering with the function or integrity of the system, 0,5 wide on each of the fence.

SA 07.03.01 Monthly maintenance

- Clearing the fence route.
- Inspect and repair ant visible damages to installation.
- Corrosion protection on fencing, gates and tubular posts.
- Inspect fence for tightness to straining wire redress of repair or repair of necessary.
- Inspect tension of straining wires and repair if necessary.

SA 07.04 REFUGE REMOVAL AND PEST CONTROL

The whole of the site within the perimeter fences of the Boesmansnek, Ramatselitso and Ongeluksnek Ports of Entry project shall be kept free of litter, rubble and solid waste. Litter and rubble (solid waste) shall be collected, stored by the Contractor and removed from site as frequently as necessary

Removal of household solid waste to the municipal dump site will be carried out by the Contractor. The cleanliness of the site will be the sole responsibility of the Contractor.

Garden refuse may be amongst the litter rubble to be collected and disposed off by the Contractor.

The tendered monthly payment for maintenance for site keeping shall be deemed to include to *continuously* collecting litter and rubble across the entire site, placing it in a central solid waste container (skip) and removing it off-site to a formal waste facility.

NO	ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Cleaning out all waste bins in public areas	Daily
2	Cleaning out all waste bins at residential units	Weekly
3	Collect litter, rubble and other waste across the entire site within the perimeter fences of the Boesmansnek, Ramatselitso and Ongeluksnek Ports of Entry project and place in central solid waste container (skip)	Continuously
4	Re-fill all rodent bait stations	Monthly
5	Internal pest, termite and rodent control	Monthly
6	External pest, termite and rodent control	monthly

SA 07.05 CLEANING AND SITE KEEPING

The Contractor shall further be responsible for supplying and maintaining the grass cutting equipment in a perfect working condition.

SA 07.05.01 Site keeping

Site keeping activities will include providing all equipment and consumables necessary for site keeping, such as lawn mowers, brush-cutters, rakes, fuel, shovels, etc, and shall be deemed included in the monthly maintenance cost for Site keeping and Cleaning.

NO	ACTION	FREQUENCY
1	Cleaning out of *and supply* of black waste bin bags to all waste bins in public areas	Daily
2	Cleaning out of all waste bins in residential areas	Weekly
3	Emptying the solid waste skip and removal of waste off-site to approved dumping site	At least monthly (when required)
4	Watering of plants, shrubs, grass and trees (*only* if water is readily available and instructed for by Engineer)	daily
5	Removal of weeds	Weekly
6	Clearing of weeds and grass along the edges of paved areas	Weekly
7	Cutting of grass. Lawns: No grass to exceed the length of 40mm. Open areas: No grass shall exceed the length of 100mm.	At least weekly (when required)
8	Trimming of dense shrubs	2 Monthly
9	Removal of undesirable shrubs	Quarterly
10	Trimming of trees where branches cause obstruction	Quarterly
11	Collecting of litter and foreign objects	Continuous Daily

SA 07.05.02 Cleaning tasks for Offices, Ablutions and Support Facilities

The Contractor shall be responsible for cleaning ablution facilities as frequently as necessary to maintain them in a clean and healthy condition. The actions outlined below serve only as a benchmark for the cleaning and maintaining of the facilities.

Cleaning activities will include providing all cleaning agents and equipment necessary for cleaning. Consumables such as toilet paper, sanitizers, bin liners of she-bins, paper towels and hand wash soap will be replaced by the Contractor as and when necessary and shall be deemed include in the monthly maintenance cost for Site Keeping and Cleaning. It can be assumed that toilet paper will be consumed at 3 rolls per toilet (public ablution) per day (single ply), and hand washing soap at 2 litres per soap dispenser per month.

CLEANING TASKS FOR OFFICE AND SUPPORT FACILITIES

NO	ACTION	FREQUENCY
1	Disinfect and cleaning of floors in public passage areas and open plan offices	Daily (before the opening of the port of entry)
2	Disinfect and cleaning of counter tops and under counter shelves	Daily (before the opening of the port of entry)
3	Emptying of waste baskets in offices and service buildings	Daily
4	Disinfect and cleaning of office floors / Vacuum of carpets	Weekly
5	Washing of windows and dusting of window sills and ledges	Weekly
6	Clean and polish all fittings	Weekly
7	Washing of walls	Weekly
8	Dusting of interior of the building to remove dust and spider webs	Weekly

CLEANING TASKS FOR ABLUTION FACILITIES

NO	ACTION	FREQUENCY
1	Disinfecting, cleaning and ensuring that the ablution facilities are in a pristine sanitary condition at all times	Continuous 7 days a week
2	Disinfect, washing and cleaning of floors	Continuous 7 days a week
3	Empty and clean all waste receptacles	Continuous Daily
4	Clean and sanitise all bowls, basins and urinals	Continuous Daily
5	Clean, sanitise and polish all fittings and mirrors	Continuous Daily
6	Sanitising and cleaning out of she-bins	Continuous Daily
7	Washing of windows and dusting of window sills, ledges, pipes and fittings	Weekly
8	Disinfecting and washing of walls	Monthly
9	Dusting of interior of the building to remove dust and spider webs	weekly

SA 07.06 WATER DISTRIBUTION NETWORKS

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Water Audit	Monthly
2	Clean out all strainers	Monthly
3	Check, inspect, repair or replace all bracketing systems	Four-monthly
4	Pant repairs to piping, fittings and equipment	Annually

CLEANING OF EXISTING PIPELINES

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Remove silt, debris and loose lime deposits from within pipeline where required by scouring	Annually
2	Do general cleaning in areas where leakage has occurred	Six-monthly

FITTINGS AND STRUCTURES

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Replace all valves gaskets, gland packings and seals	Annually
2	Check, inspect, service, repair and readjust all pressure reducing valves	Annually
3	Check, inspect and test operation of all valves on site	Four-monthly
4	Check, inspect, service, test and repair/replace all safety and expansion release valves	Six-monthly
5	Check, inspect, service, test and repair/replace all air release valves and vacuum breakers	Four-monthly
6	Check, service, repair or replace all ball float valves	Six-monthly
7	Clean out structures of debris	Four-monthly
8	Check, inspect, test, service and repair/replace all non-return valves	Four-monthly

SA 07.07 WATER RESERVOIRS AND STORAGE TANKS

NO	ROUTINE PREVENTATIVE MAINTENANCE OF PRESSED STEEL TANKS AND ANCILLARIES	MAINTENANCE FREQUENCY
1	Check for and repair all leaks. Repair leaks.	Monthly
2	Corrosion protection.	Annually
3	Clean and sterilise pressed steel tanks.	annually

SA 07.08 BOREHOLE PUMP SYSTEMS

The borehole pumping equipment and systems shall be serviced and maintained to keep it in perfect functional condition.

NO	ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Service submersible pumps	Annually
2	Clean filters/ strainers	Three-monthly
3	Check V-belts (Lister Engine)	Monthly
4	Measure rest water-level	Three-monthly
5	Check and clean MCC panel	Three-monthly
6	Check electric motors	Monthly
7	Monitor supply to storage tanks from borehole	Daily

SA 07.09 WATER PUMP SYSTEMS

Maintenance shall include all repairs, replacing of components or materials, routine setting or any other actions necessary to ensure a perfect functional condition

NO	ROUTINE PREVENTATIVE MAINTENANCE OF CLEAR-WATER PUMP SYSTEMS	MAINTENANCE FREQUENCY
1	Check, service, repair and clean all pumps	Annually
2	Corrosion protect pumps, motors and surface piping	As required
3	Check, inspect, report and repair all leaks	Monthly
4	Check and lubricate moving parts	Four-monthly
5	Operation and supply of diesel for water pump at Boesmansnek, Ramatselitso and Ongeluksnek Ports of Entry	Daily

SA 07.10 SEWAGE NETWORKS

SA 07.10.01 Sewage Network Systems

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MANTENANCE FREQUENCY
1	Check, inspect, repair or replace all manhole covers and frames and builder's work to manholes	Four-monthly
2	Check, inspect and repair manhole benching	Four-monthly
3	Check, inspect, repair or replace all inspection eye, end caps and cleaning eye covers	Four monthly
4	Check, inspect, report and unblock any blockages that occurs	Monthly
5	Systematically mechanical cleaning of all sewer manholes and unblocking of all sewer line	Monthly
6	Check, inspect, repair/replace sewer pipes where necessary to maintain good working condition at all times	Four-monthly

SA 07.11 ROADS

All components of a roadway infrastructure, which includes the road surface, underlying layer works, kerbing, road markings, road sins and sidewalks, shall be maintained during the Contract.

Maintenance shall all repair work, replacing of components, fixing of defects, or any other actions or rectifying measures necessary for complete and safe functioning of the road infrastructure.

Maintenance of the road infrastructure shall also include all other actions related to maintenance, such as temporary accommodation of traffic through and around work areas, and provision of temporary accesses to properties.

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Check, inspect, repair all surface failures	Two-monthly
2	Check, inspect, repair all pavement failures	Six-monthly
3	Inspect and repair gravel shoulders	Six-monthly
4	Check, inspect, repair, repaint, replace road markings	Six-monthly
5	Check, inspect, repair, repaint, replace road markings	Annually
6	Remove loose material from the surface of parking areas by means of mechanical brooming	monthly

SA 07.12 SRORMWATER DRAINAGE

All components of the stormwater drainage infrastructure, including surface as well as underground components, shall be maintained during the contract.

Maintenance shall include all repair work, replacing of components, fixing of defects, cleaning, or any other actions or rectifying measures necessary for complete and safe functioning of the stormwater drainage infrastructure.

Maintenance on the stormwater drainage infrastructure shall also include all other actions related to maintenance, such as temporary drainage features and temporary accommodation of traffic.

NO	ROUTINE PREVENTATIVE MAINTENANCE ITEM DESCRIPTION	MAINTENANCE FREQUENCY
1	Check, inspect, repair or replace all manhole or inlet covers, grids and frames and builder's work to manholes.	Four-monthly
2	Check, inspect and repair manhole and inlet benching.	Four-monthly
3	Check, inspect, report and unblock any blockage that occurs.	Monthly
4	Clean all vegetation and debris accumulated in inlets and around stormwater pipes / culverts.	monthly

SA 07.13 EXTERNAL LIGHTING SYSTEMS

Maintenance shall include all repairs, replacing of components or materials, routine setting or any other actions necessary to ensure a perfect functional condition. The following shall be used as guidelines to ensure effective maintenance:

SA 07.13.01 Area Lighting

Monthly Maintenance

- Verify operation of switching element.
- Check lamps.
- Check mast door for weatherproof seal.
- Check earth connection at footing, record value.

Annual Maintenance

- Service all luminaries
- Measure earth resistance of electrode.
- Measure earth resistance of trench earth.
- Record values in record book.

SA 07.13.02 Security lighting

Monthly Maintenance

- Verify operation of switching element.
- Check lamps.
- Check that all pole covers are secure.
- Visually check distribution kiosk.

Annual Maintenance

- Measure phase voltages and line currents in distribution kiosk or local distribution board.
- Do vermin protection.
- Service all luminaires.
- Paint timber poles with creosote.

SA 07.13.03 Street Lighting

Monthly Maintenance

- Verify operation of switching element.
- Check lamps.
- Check that all pole covers are secure.
- Visually check distribution kiosk

Annual Maintenance

- Measure phase voltages and line currents in distribution kiosk.
- Do vermin protection.
- Service all luminaires and distribution kiosks.
- Paint timber poles with creosote.

SA 07.14 LOW VOLTAGE RETICULATION

SA 07.14.01 Monthly maintenance

- Verify operation of volt and ammeters.
- Check that access covers are secure.
- Visually check distribution board.
- Check all connections.
- Check operation of switching timers.
- Inspect and secure access doors and covers.
- Inspect distribution kiosks.
- Inspect overhead conductors, insulators and poles.
- Monthly electricity meter readings.

Annual maintenance

- Service all low voltage boards.
- Measure phase voltages and line currents in low voltage distribution board.
- Record values in record book and Maintenance Control Plan.
- Service all distribution and metering kiosks.
- Service overhead distribution system.

SA 07.15 STANBY POWER SYSTEMS

SA 07.15.01 Weekly maintenance

1. Simulate a power failure **EVERY FRIDAY** at **11:00** to ensure generator is fully operational. Test run shall be undertaken, if possible on load, and running hours, diesel levels, volt, ampere and frequency readings recorded.

SA 07.15.02 Monthly maintenance

1. The following activities shall be executed during the monthly generator inspections:

   - Check oil level and top up as required.
   - Check oil viscosity for dilution by water or fuel.
   - Check starter battery terminals and apply contact grease.
   - Check battery cables for damage and secure termination.
   - Check battery electrolyte.
   - Check battery voltage and record.
   - Check battery voltage drop during engine cranking and record.
   - Check battery charger operation after cranking test.
   - Check starter motor for abnormal noise.
   - Check diesel engine while running for noise, vibration or loose components.
   - Check all flexible hoses for leaks, corrosion and ageing.
   - Check all engine V-belts.
   - Monitor engine / alternator coupling for noise.

2. Verify that the alarm functions are operational by simulation:

   - Low oil pressure.
   - High engine temperature.
   - Low engine coolant level.
   - Abnormal speed.
   - Synchronising failure (if applicable).
   - Cooling water pump failure.
   - Cooling tower fan failure (if applicable).
   - Low battery voltage.
   - Fuel pump failure.
   - Low fuel bulk tank (if applicable).

3. Test that following alarms trigger correctly by creating the alarm condition:

   - Unit not in auto : turn selector switch to manual or test
   - Battery charger failure : switch off AC supply to battery charger
   - Auxiliary supply failure : switch off auxiliary power supply

4. Alternator shall be checked for accumulation of dust on the regular and for any loose components.

5. Test run shall be undertaken, if possible on load, and volt, ampere and frequency readings recorded.

6. Alternator shall be cleaned and switched back into 'auto' mode

7. Complete standby Generator monthly log sheets

8. Record running hours, diesel consumption etc in the following prescribed format (example):

	Previous Measurement	This Measurement	Consumption	Average Per day
Date:	01-Apr-2016	03-May-2016	Total	32 days
Diesel Tank Meter Reading (litres)	26542.2	30546.2	(litres) 4004.0	(ltrs/day) 125.1
Running Hours:			(hours)	(hrs/day)
Generator 1 (hrs)	1245.6	1604.2	358.6	11.2
Generator 2 (hrs)	2535.6	2927.6	392.0	12.3
Total Generator hours (hrs)			750.6	
Average Diesel consumption			5.3	ltrs/hr

SA 07.15.03 Annual maintenance

The following activities shall be executed in addition to the monthly maintenance work after every twelve months.

1. Drain an oil sample and submit for analysis to establish need for an oil change. Fix test report in Record book
2. Record output parameters while on load.
3. Record running hours
4. Replace oil and fuel filters if not replaced during 1 year as part of 200hrs service).
5. The cooling system shall be drained, flushed and refilled with water and prescribed water conditioner.

SA 07.16 HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS

SA 07.16.01 Monthly maintenance

REFERENCE NUMBER	ACTION
S-1	Clean filters, replace if required
S-2	Inspect air intake and discharge for blockages
S-3	Check all refrigerant, drainage pipes for damage and leaks
S-4	Check sight glass: clear or flash gas
S-5	Carry out visual inspection of condenser coil for blockages and correct operation of fans
S-6	Carry out visual inspection of evaporator coil for blockages and correct operation of supply fan
S-7	Check enclosure for damages
S-8	Check electric motor running temperature
S-9	Check electric connections for tightness
S-10	Test thermostat and control operation
S-11	Clean condensate tray and test drainage for proper operation
S-12	Check cooling and heating cycle

SA 07.16.02 Bi-Annual maintenance (6-months)

REFERENCE NUMBER	ACTION
S-1	Clean filters, replace if required
S-2	Inspect air intake and discharge for blockages
S-3	Check all refrigerant, drainage pipes for damages and leaks
S-4	Check sight-glass: clear or flash gas
S-5	Carry out visual inspection of evaporator coil for blockages and correct operation of fans
S-6	Carry out visual inspection of evaporator coil for blockages and correct operation of supply fans
S-7	Check enclosure for damages
S-8	Check electric motor running temperature
S-9	Check electric connections for tightness
S-10	Test thermostat and control operation
S-11	Clean condensate tray and test drainage for proper operation

S-12	Check filter/dryer
S-13	Check superheat and functioning of expansion valve
S-14	Check operation of HP and LP
S-15	Check operation of controllers
S-16	De-rust, neutralize and touch up paint work
S-17	Check cooling and heating cycle
S-18	Clean evaporator and condenser oil chemically
S-19	Clean all filter frames and seals
S-20	Check fan motor and compressor current
S-21	Check and test overload settings
S-22	Lubricate all bearings

SA 17.17 FIRE FIGHTING EQUIPMENT

The routine preventative maintenance work to be performed and executed shall include, but not be limited to the items listed below under the respective headings. These actions and findings shall be logged and reported on the relevant approved schedules and reports.

SA 17.17.01 Fire Extinguisher: Monthly Maintenance

- Check charge of the extinguisher.
- Check the condition of the discharge.
- Check the mechanism condition of the discharge hose.
- Update the log entry on the extinguisher.
- Log maintenance schedule
- DCP extinguishers: Check charge and replace powder at prescribed intervals.
- CO_2 extinguisher: Check charge.

SA O8 MANDATORY PERIODIC SERVICE

.The following mandatory periodical services shall be measured for payment separately and does not form part of the remuneration for monthly preventative maintenance items

SA 08.01 Log all water meter readings and calculate losses on a monthly basis and report in the following format (example):

	Previous Measurement	This Measurement	Consumption	Average per day (kl)
Date:	01-Apr-2016	03-May-2016	Total	32 days
WATER SUPPLY: (kl) Main Supply (input)	 278540.6	 279235.5	(kl) 694.9	(kl/day) 21.716

Admin	15642.0	15690.0	48.0	1.500
Cell Block	15674.0	15721.5	47.5	1.484
House A1	18569.5	18610.8	41.3	1.291
House A2	32598.0	32650.5	52.5	1.641
House B1	13349.4	13396.0	36.6	1.144
House B2	89562.5	89620.7	58.2	1.819
House B3	98685.3	98721.1	35.8	1.119
Ablution A	85684.0	85723.2	39.2	1.225
Ablution B	53265.5	53397.6	132.1	4.128
Building A	25689.2	25790.2	101.0	3.156
Building B	26858.8	269521.1	93.3	2.916
Total consumption Output)			685.5	21.422
Loss (Input – Output)			9.4	0.294
PORTABLE WATER SUPPLY: Water supply within standards Water test report attached	 Yes/No Yes/No	 Yes/No Yes/No		

SA 08.02 **Sample potable water supply and chemical analyses to be provided by an authorised company on a monthly basis. The water report should be provided monthly in the following format, In accordance with SANS241:**

SANS 241:2006	Unit	Class 1 (recommended values)
Chemical report		
pH		5.5 tot 9.5
Electrical conductivity	mS/m	150
Calcium as Ca	mg/L	150
Magnesium as Mg	mg/L	70
Sodium as Na	mg/L	200
Potassium as K	mg/L	50
P-Alkalinity	mg/L	
M-Alkalinity	mg/L	
Fluoride as F	mg/L	1
Chlorine as Cl	mg/L	200
Bromide as Br	mg/L	**3
Nitrate as N	mg/L	10
Phosphate as PO_4	mg/L	
Sulphate as SO_4	mg/L	400
Calcium Hardness	mg/L	375
Magnesium hardness	mg/L	287
Total hardness as $CaCO_3$	mg/L	662
Aluminium as Al	mg/L	0.300
Arsenic as As	mg/L	0.010

Chromium as Cr	mg/L	0.100
Copper as Cu	mg/L	1.000
Iron as Fe	mg/L	0.200
Manganese as Mn	mg/L	0.100
Lead as Pb	mg/L	0.020
Zinc as Zn	mg/L	5000
Bacteria report		
Heterotrophic plate count	cfu/ml	100
Total coliform	cfu/100ml	0
e. coli	cfu/100ml	0

SA 08.03 Log all electricity meter readings on a monthly basis in the following format:

	Previous Measurement	This Measurement	Consumption	Average per day (kl)
Date:	01-Apr-2016	03-May-2016	Total	32 days
ELECTRICITY: (kWh)			(kWh)	(kWh/day)
Main Supply	124899.0	145865.9	20966.9	655.2
Admin	135899.0	1523.3	167.3	5.2
Cell Block	3596.5	3658.2	61.7	1.9
House A1	8976.0	9256.3	280.3	8.8
House A2	9686.0	9785.2	99.2	3.1
House B1	9565.0	10152.2	587.3	18.4
House B2	3594.0	4512.3	918.3	28.7
House B3	3594.0	4689.2	1095.2	34.2
Ablution A	3598.0	4154.3	556.8	17.4
Ablution B	5975.0	8785.3	2779.3	86.9
Building A	5698.0	8520.0	2822.0	88.2
Building B	5689.0	8654.2	2965.2	92.7

SA 08.04 Cleaning and sterilization of water storage reservoir/tank to be performed annually.

SA 08.05 Remove and empty waste from skip to external waste disposal site on a weekly basis.

SA 08.06 De-sludge and cleaning of septic tanks as and when required and instructed for by the Engineer.

SA 08.07 Service submersible pumps for borehole installations annually.

SA 08.08 Statutory annual servicing of fire extinguishers.

SA 08.09 Annual Pest control (internal and external).

SA 09 FREQUENT SERVICING OF INSTALLATIONS

SA 09.01 Wastewater Treatment

General frequent servicing of the wastewater treatment works shall be done in accordance with this specification.

SA 09.01.01 General

The general frequent servicing work to be performed and executed shall include, but shall not be limited to the items listed in the table below:

Item	Description	Frequency
01	General housekeeping: keeping site in neat and acceptable condition.	Daily
02	Control access to the site.	Daily
03	Maintain safety conditions on site.	Daily
04	Log and report spills, pollution events, power failures, extraordinary process phenomena, etc. check auto-reset of power to mechanical equipment	Event
05	Develop a feel for effective treatment by means of visual indicators of good/bad plant performance: colour, odour, foam, algae growth, aerator spray patterns, effluent clarity, bubbles, floating material, solids accumulation, flow patterns, turbulence, touch.	Daily
06	Record operating hours and kW-hours of all mechanical equipment	Daily
07	Check operation of all valves and sluices	monthly

SA 09.01.02 Specific Processes and Units

The specific frequent servicing work to be performed and executed shall include, but shall not be limited to the items listed in the table below:

Item		Operation of Specific Processes and Units	Frequency
01		Septic tanks and French drains	
	01	Check and log scum, water and sludge depths in tank	6 Months
	02	Empty tank as specified frequencies (max. 3years) or when full	3 Years
	03	Inspect French drain for accumulation of water or for seepage to surface. If positive, repair again	3 Months
	04	Clean connecting pipes and accessories and remove tree and grass roots from pipes	3 Months
02		Inlet works	
	01	Hand-raked screens: remove screenings rags, plastics, etc), ensuring that only degradable material is passed on to subsequent process units. (Last removal after evening peak flow	2 hours during day
	02	Wash screenings and grit, and return degradable material to treatment train	Hourly
	03	Dispose of screenings and grit by on-site burial	Daily
03		Oxidation/maturation ponds	
	01	Remove floating material from trap at an inlet pond and dispose of by off-site removal.	Daily
	02	Remove tree and grass roots from verges of ponds.	Monthly
	03	Check leak detection facilities (if provided) for signs of leakages	Monthly
	04	Ensure that surface growths are not accumulated in ponds.	monthly

04		Settling tanks	
	01	Scour settling tank and check for clumps of floating sludge.	Daily
	02	Remove scum and clean overflow weirs.	Daily
	03	Clean submerged portion of settling tank walls by pushing settled sludge on inclined surfaces down to the apex of the cone.	Monthly
05		Sludge drying beds	
	01	Apply sludge to drying beds in depths to suit climatic conditions, and remove when adequately dried.	Daily
	02	Keep sludge beds free of weed growth.	Daily
	03	Replenish filter media when required.	Event
06		Sludge disposal facilities.	
	01	Remove tree grass roots from verges of sludge lagoon.	Monthly
	02	Check leak detection facilities (if provided) for signs of leakage from lagoon.	Monthly
	03	Maintain hygienic conditions at sludge handling facilities.	Daily
07		Pump stations	
	01	Check operation and correct switching of pumps.	Daily
	02	Clean pump sumps.	Weekly
08		Bio filters	
	01	Check operation of dosing siphons and snifter pipes.	Daily
	02	Check operation of flow distribution pipes.	Daily
	03	Flush flow distribution pipes.	Weekly
	04	Check spread of flow and clean distribution nozzles/holes	Weekly
	05	Evaluate, by means of measurement and calculation, flushing rates, frequency and duration.	6 Monthly
	06	Inspect health of biological growth on filter media.	Weekly
	07	Check occurrence of blockages, ponding and nuisance conditions on filter media.	Monthly
	08	Check operation of dosing and re-circulation pumps.	Daily
09		Chemical phosphate removal	
	01	Check operation of dosing equipment.	Daily
	02	Select chemicals and dosing rates by means of beaker tests. Ensure correct calculation of dosage concentration and dosing rates.	6 Months
	03	Check, by means of measurement and calculation, the accuracy of dosing rates and their control proportion to flow rate.	Daily
	04	Manage provision, storage and control of chemicals.	Daily
	05	Ensure continuous dosing – avoid pulsing of dosing stream.	Daily
10		Disinfection	
	01	Check operation of dosing facilities.	Daily
	02	Clean chlorine contact tank.	4 Months
	03	Ensure chlorine-dosing proportional to flow rate.	Weekly
11		Effluent disposal facilities	
	01	Oxidation ponds: manage irrigation of effluent as means of disposal.	Daily
	02	Ensure erosion free discharge to receiving water body.	Monthly

SA 09.01.03 Monitoring and Reporting

The contractor shall keep a written record of all measurements taken and analyses done for process control and reporting to relevant authorities in terms of legal or project requirements.

A logbook shall be kept for daily recording of failures, malfunctions, spills, pollution events, power failure and detail of measures taken.

SA 10 MEASUREMENT AND PAYMENT

SA.01 **MAINTENANCE OF A COMPLETE INSTALLATION** ..... Unit: point

The unit of measurement shall be a point. Each month shall represent a maximum of ten points and a minimum of zero points, depending on the performance and quality of maintenance. Ten points per month, determined by using the tendered rate per point, shall include full compensation for all liabilities and obligations described or implied in the Contract document and deemed by the Contractor to be applicable to the maintenance phase of the Contract, for the complete monthly maintenance of an entire installation, and all appurtenant works deemed to form part thereof, as defined in the relevant Technical or Particular Specifications.

tendered Contract Price) shall also include full compensation for complete preventative, corrective and breakdown maintenance (as defined in this General Maintenance Specification), including full compensation for all costs related to resetting, repair, procurement, supply, delivery, replacement, protecting, furnishing, installing, testing and commissioning of all items and material required to maintain the complete installation in a perfect functional condition. The only items not to be included in the rate for monthly maintenance points are:

1. Supply, delivery, installation and testing of special equipment/materials that will be measured elsewhere, and

2. Special testing of an installation.

Different installations shall be listed in the Schedule of Quantities, in accordance with the definition of each installation.

Although ten points per month shall include full compensation for preventative, corrective and breakdown maintenance, the Contractor might fail to achieve all points applicable in the event of unsatisfactory performance, in which case he shall still perform all maintenance requirements according to specification, but at his own cost where a reduction in points awarded is insufficient to cover his cost.

SA.02 **ADDITIONAL TESTS:**

SA.02.01 **Where ordered by the Engineer**..... Unit: rand (R)

SA.02.02 **Charge required by the Contractor on subitem SA.03.01 above** ..... Unit: %

An amount has been allowed in the Schedule of Quantities to cover the cost of additional tests required by the Engineer. The Engineer will have the sole authority to spend the amount or part thereof under subitem SA.03.01.

The tendered percentage under subitem SA.03.02 will be paid to the Contractor on the value of each payment made to the approved testing authority.

SA.03 **PAYMENT REDUCTION DUE TO EXCEEDING OF MAXIMUM ALLOWABLE DOWN-TIME DURING EMERGENCY BREAKDOWN**..... Unit: days

The unit of measurement shall be the number of days, in excess of 36 hours, during which a component of an installation was in a disfunctional condition that required emergency repairs.

The negative fixed rate shall include full compensation for the User Client's loss in productivity and, multiplied by the number of days measured, shall be deducted from the certified amount due to the Contractor.

SA.04 **PAYMENT REDUCTION DUE TO EXCEEDING OF MAXIMUM ALLOWABLE DOWN-TIME DURING ORDINARY BREAKDOWN**.....Unit: days

The unit of measurement shall be the number of days, in excess of 7 days, during which a component of an installation was in a disfunctional condition that required ordinary repairs.

The negative fixed rate shall include full compensation for the User Client's loss in productivity and, multiplied by the number of days measured, shall be deducted from the certified amount due to the Contractor.

SA.05 **PAYMENT REDUCTION DUE TO EXCEEDING OF MAXIMUM ALLOWABLE DOWN-TIME DURING OPERATIONAL DAMAGE BREAKDOWN**.....Unit: days

The unit of measurement shall be the number of days, in excess of 7 days, during which a component of an installation was in a disfunctional condition that required ordinary repairs.

The negative fixed rate shall include full compensation for the Client's loss in productivity and, multiplied by the number of days measured, shall be deducted from the certified amount due to the Contractor.

SA.06 **CALL-OUT FOR REPAIR OF EMERGENCY BREAKDOWN (24 Hours)**.....Unit: No

The Unit of measurement shall be number. The Contractor will be remunerated for the number of call-out trips to the site, in order attend to the repair of an emergency breakdown logged (Before Access to a Site) with him by the Engineer. The tendered rate shall provide full compensation for all travel, accommodation and travel-time cost to and from the site. Remuneration for material and labour cost is deemed to be included under the "maintenance of a completed installation" payment item in the schedule of quantities, based on the points system and measured monthly.

DEPARTMENT OF PUBLIC WORKS

MAINTENACE SCORE-CARD

CONTRACT NUMBER: WCS

CONTRACT:

CONTRACTOR:

ENGINEER:

INSTALLATION: **MONTH:** OF 36

The following components of the installation were selected by the contractor at the Monthly Operation Meeting nr. as performance indicators to be tested according to specification:

1. ENGINEER'S SELECTION

		0	1
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
1.10			

TOTAL SCORE:

Engineer's Representative **Signature** **Date** D D / M M / Y Y

GUIDELINE FOR THE USE OF THE MAINTENANCE SCORE-CARD

The score-card and performance indicators must be used as a maintenance management tool. The aim with each score-card is to ensure that:

(a) the project focuses on key aspects of maintenance per month;
(b) the Contractor receives payment for his work, and
(c) the Employer receives value for money and a sustained high level of service.

Performance indicators must be selected to measure the Contractor's service level of preventative and corrective maintenance that will be based on the Maintenance Control Plan and the Operating and Maintenance Manuals (containing information specified in the Contract documentation).

For each specific installation, different performance indicators must be defined each month based on the content of the maintenance in relation to the scope of maintenance work per installation and must be based on the Contractor's service level record on preventative and corrective maintenance.

Breakdowns must be dealt with if and when necessary by logging of the breakdown and monitoring the downtime.

The Contractor and the Engineer must agree on all performance indicators at an occasion prior to the month during which the Contractor's performance (service level of maintenance) will be measured.

ADDITIONAL SPECIFICATION

SB OPERATING AND MAINTENANCE MANUALS

CONTENTS

SB 01	SCOPE
SB 02	PROCEDURE FOR SUBMISSION OF MANUALS
SB 03	FORMAT OF OPERATING AND MAINTENANCE MANUALS
SB 04	CONTENTS
SB 05	MEASUREMENT AND PAYMENT

SB 01 SCOPE

The Contractor shall be responsible for the compilation of complete sets of Operating and Maintenance Manuals. A separate Operating and Maintenance Manual shall be supplied for each installation where required and as defined in the Additional Specification SA: General Maintenance.

SB 02 PROCEDURE FOR SUBMISSION OF MANUALS

SB 02.01 SUBMISSION OF DRAFT MANUALS

A draft copy of each Operating and Maintenance Manual shall be submitted to the Engineer prior to safety inspection of the installation. Approval of the draft Operating and Maintenance Manuals shall be a prerequisite for commencement of the safety inspection in terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

The manuals will be reviewed and checked by the Engineer and returned to the Contractor with comments, where necessary. The Contractor shall make the necessary changes and amendments to the manuals to incorporate the Engineer's comments.

SB 02.02 DEVELOPMENT OF FINAL MANUALS

A final draft copy of each Operating and Maintenance Manual shall be submitted to the Engineer at least one week prior to commencement of Day 1 tests on commissioning. This set of manuals will not be accepted without the Contractor's verification of the information contained in the manuals and the professional language editing thereof. The Engineer shall return the manuals to the Contractor, who shall make the final corrections. The Engineer will, however, not be responsible for the quality control on manuals. Approval of final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Practical Completion for repair of the installation.

After the Engineer has approved the final Operating and Maintenance Manuals, the Contractor shall provide the Engineer with seven (7) sets of the manuals. Approval of the final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Completion.

SB 03 FORMAT OF OPERATING AND MAINTENANCE MANUALS

(a) Manuals shall be bound in hardcover lever-arch files with plastic coatings. The files shall be clearly labelled on the front cover, as well as on the back band, with the following information:

(i) The title "Operating and Maintenance Manuals"

(ii) Name of the installation (as defined in Additional Specification SA: General Maintenance)

(iii) Name of the contract and contract number

(iv) The Contractor's name, address and contact telephone number and fax (logo optional)

(v) Month and year in which the manuals are finally handed over to the Employer

(vi) Name of the User Client.

(b) Pamphlets and bound leaflets/booklets from suppliers or manufacturers shall be placed in plastic pockets.

(c) Drawings and diagrams larger than A3 shall be folded and placed in plastic pockets to be easily removed or stored.

(d) The sections of the manuals specified below shall be clearly partitioned.

(e) Cross-referencing between drawings/diagrams and text shall be in a clear and consequent format.

(f) The Operating and Maintenance Manuals shall be supplied in English.

SB 04 CONTENTS

SB 04.01 TABLE OF CONTENTS

The table of contents shall appear on the second page and shall consist of the headings of the various sections in the manual and the relevant page numbers.

The table of contents shall essentially contain at least the following:

1. Introduction
   - 1.1 Scope of the manual
   - 1.2 General arrangement of the manual
   - 1.3 Description of installation
   - 1.4 Specifications
2. List of drawings and diagrams
3. Parts and components
4. Operating procedures

5. Maintenance

   5.1 Purpose of maintenance
   5.2 Preventative maintenance
   5.3 Trouble-shooting

6. Breakdown maintenance and repair

7. List of Appendices.

SB 04.02 INTRODUCTION

The introduction shall contain at least the following:

SB 04.02.01 Scope of the manual

A summary shall explain the scope of the contents.

SB 04.02.02 General arrangement of the manual

A brief description shall explain the way in which the manual is arranged.

SB 04.02.03 Description of installation

This section shall give a functional description of the complete installation covered by the manual, including all systems and/or functional units deemed to form part thereof, as defined in Additional Specification SA: General Maintenance.

SB 04.02.04 Specifications

A summary shall be given of the specifications applicable to the particular part of the Contract.

SB 04.03 DRAWINGS AND DIAGRAMS

SB 04.03.01 Mechanical flow diagrams (MFDs) and single line diagrams

Mechanical flow diagrams (for mechanical systems) or single line diagrams (for electrical systems) of the system and/or functional unit shall be included in the Operating and Maintenance Manuals for easy reference by the operators of the installation. Diagrams shall be drawn not only for parts of an installation that have been repaired, but also for the complete installation, including all the components.

SB 04.04 PARTS AND COMPONENTS

SB 04.04.01 Equipment data sheets

A data sheet shall be drawn up for each piece of equipment and/or machine forming part of the installation and shall contain the following information:

(a) Equipment tag number
(b) Equipment description
(c) Model/make/manufacturer
(d) Supplier/Reconditioning details
(e) Ordering details
(f) Details of fixed components

(g) Details of lubrication
(h) Maintenance references (refer to supplier/reconditioning technical manual).

SB 04.04.02 **Technical equipment manuals**

For each piece of equipment and/or machine forming part of the installation the following information shall be included in this section of the Operating and Maintenance Manuals:

(a) the supplier or reconditioning manual and/or standards of operating and maintenance instructions;

(b) illustrated parts breakdown and/or group assembly drawings as agreed with the Engineer;

(c) parts lists and data sheets, including all characteristic curves for machines indicating operation point, efficiency, power consumption, etc;

(d) calibration charts, and

(e) test certificates for hydraulic pressure tests, flame-proof grading, materials, non-destructive examinations, coating and lining details, etc.

Each detailed description shall be accompanied by a set of engineering drawings. From the drawings the functionality of each part or component used, as well as the special characteristics associated with the part or component shall be very clear.

SB 04.04.03 **Parts and components list**

A detailed description shall specify all the parts and components used for the duration of the Contract. This description shall include new parts and components, as well as existing parts and components that have either been reconditioned or used as specified in the Contract.

The description shall state at least the part or component number, part or component name, the size of the part or component, an explanatory description, the quantity used, the material of which the part or component is made, the coating (if any), date of purchase, as well as any relevant remarks as to the application thereof.

Details of the manufacturer of the part or component shall also be listed. This shall at least state the name, address, telephone number, fax number and name of a contact person.

The supplier of the part or component shall also be stated and shall include at least the name, address, telephone number, fax number, name of a contact person and an alternative supplier (if available).

SB 04.04.04 **Drawings**

Drawings shall contain a descriptive heading, an explanatory key and relevant comments. Drawings shall be done on a computer-aided design package approved by the Engineer.

A compound drawing for all subassemblies shall clearly indicate how and where the various parts fit in the subassembly. The compound drawing shall be linked to the equipment data sheets and parts and components list and shall clearly specify the parts or components used, their model numbers, their sizes and the quantities used. The compound drawings shall also be accompanied by a short description explaining the workings of the subassembly, as well as the assembly of the parts or components to complete the subassembly.

SB 04.05 OPERATING PROCEDURES

The operating instructions shall be a step by step description of the manual start-up and shut-down procedure for every piece of equipment and/or process reconditioned, repaired or supplied with references to the MFDs. For automatic operation the operators shall be referred to the automatic control manual (if applicable).

The functioning of the installation shall be clearly described, using a flow diagram depicting the interrelationships among the various subassemblies. The subassemblies shall be described by descriptive drawings.

Each mechanical or process flow diagram shall contain at least a heading, relevant comments and a key.

Every subassembly shall also have its own flow diagram explaining the operation of the subassembly, as well as the application of each part and component. The application of the subassembly shall also be very clear. The flow diagram shall consist of at least a heading, relevant comments and an explanatory key.

A detailed description shall be given of all operational systems forming part of the installation, explaining the operation and functioning of the system and the number of operations personnel required for performing the operation successfully.

The preparations, which are required before the system can be operational, shall be clearly stated and explained.

The operation tasks shall be clearly explained with reference to dangerous situations that might occur. Hazardous operations shall be explained in great detail and cover all the applicable safety precautions.

SB 04.06 MAINTENANCE

SB 04.06.01 Purpose of maintenance

The maintenance process shall be explained and the main responsibilities described.

SB 04.06.02 Preventative maintenance

A preventative maintenance and lubrication schedule shall be included in this section. This schedule shall be in table format and shall include a summary of all the maintenance actions required for each different system and/or functional unit covered by this manual, in order to give a single summary of all routine preventative maintenance actions required for the complete installation.

The schedule shall indicate daily, weekly, fortnightly, monthly and yearly maintenance actions. A lubrication schedule summary shall also be included under this section.

The frequency of routine preventative maintenance actions shall be indicated very clearly.

The Contractor shall provide the maintenance requirements as prescribed by the manufacturer. The type of maintenance shall be clearly indicated. The description of the maintenance to be performed shall include at least the part name, location of the part in either the assembly or subassembly, the model number, the quantity of the particular part or component to be maintained, the type of maintenance, and notes on the maintenance procedure.

A brief description shall accompany the maintenance schedule, indicating special tools to be used, maintenance and test equipment required for the test procedures. Any special tools necessary for maintenance shall be specified in terms of name, model, size, manufacturer, supplier (name, telephone number, fax number, contact person), coating (if any) and notes on the use of the equipment.

Remarks on the system readiness checks of each subassembly shall be explained in detail. Routine inspection and maintenance processes shall be described. It shall be very clear what needs to be done, how to perform the necessary task and any dangers that are present.

SB 04.06.03 **Trouble-shooting**

An explanation shall be given to assist the maintenance personnel in analysing and resolving malfunctions that might occur. Various scenarios with possible causes and rectification procedures shall be explained.

The scenarios shall be accompanied by drawings indicating the position of the part that is faulty. Each of these drawings shall have a heading, comments and an explanatory key.

SB 04.07 **BREAKDOWN MAINTENANCE AND REPAIR**

The Contractor shall describe the complete procedure to be followed in the event of a breakdown. It shall be very clear what the operating personnel should look for, how to eliminate any dangers due to the breakdown (eg electricity must be shut off in the event of problems with the wiring) and who should be contacted. The Contractor shall supply the names and telephone numbers of at least two contact persons who may be contacted in the event of a breakdown.

The Contractor shall refer to Additional Specification SA: General Maintenance, to determine the reaction time for the repair to the breakdown.

Repair instructions shall provide the maintenance personnel with detailed instructions for the removal and/or replacement of any item requiring replacement due to malfunctioning. Contact numbers shall also be given to assist maintenance personnel, should a breakdown occur.

The Contractor shall specify the actions expected of maintenance personnel in the event of a breakdown.

The Contractor shall also specify the testing procedures to be followed before the system can be put into operation again. Every procedure shall be described clearly and all the potential dangers pointed out, as well as the precautions that have to be taken.

The testing procedures shall be accompanied by drawings illustrating the process to be performed. Every drawing shall have a heading, comments and an explanatory key.

SB 05 MEASUREMENT AND PAYMENT

SB.01 **Compile and supply a complete set of Operating and Maintenance Manuals** ..... Unit : sum

The unit of measurement shall be a sum for each complete set (seven copies) of Operating and Maintenance Manuals. Operating and Maintenance Manuals for different installations shall be measured separately in the Schedule of Quantities.

The tendered sum shall include full compensation for all technical research, gathering of information, compilation of manufacturer's instructions, compilation of drawings and diagrams, and for writing of all the descriptions, instructions and functional procedures, as well as language editing, in order to provide a clear and correct set of Operating and Maintenance Manuals.

The tendered sum shall also include full compensation for all expenses such as paper, copy work, binding and printing necessary for the completion of the manuals.

The tendered sum shall also include full compensation for the compilation of draft sets of operating and maintenance manuals in accordance with the specification, and for incorporation of all comments and corrective requirements.

SB.02 **Compile and supply a complete site plan** ..... Unit : sum

The unit of measurement shall be a sum for the complete set (three A1-size copies for each plan) and electronic format of the site plan(s).

The tendered sum shall include full compensation for all expenses such as paper, copy work and printing required for the completion of the site plan.

The site plan shall include and comply with the following:

SB.02. 01 **SCOPE**

This specification provides minimum requirements for the preparation of a Site Layout Plan and is based on the specifications of the Department of Public Works.

SB.02. 02 **SPECIFICATIONS**

The Specification is based on the following specifications:

1. Civil Engineering Manual PW347/2012, Annexure A1
2. Specification of Materials and Methods to be Used PW371
3. Additional Specification SB: Operating and Maintenance Manuals.

Compile and supply a complete Site Layout Plan:

(a) Detail Ground Survey

All services must be shown on a complete Site Layout Plan as required by the Engineer, including roads, fences, paving, transmission and telephone lines, etc. For sewerage reticulation and storm water drainage systems the pipe sizes, as well as invert heights must be provided. An effort must be made to trace the routes of these services.

(b) Survey of Buildings

The "footprint" of all the buildings and structures must be surveyed.

(c) General

All survey data shall be captured in electronic format.

SB.02. 03 TITLE BLOCK

The standard drawing sheet layout and title block of the Department of Public Works must be used.

Complete all the relevant fields in the title block with reference to the name of the Port of Entry in the appropriate block. The words SITE LAYOUT PLAN should form part of the drawing title.

SB.01 Drawing Number

The drawing number should consist of a four-part identifier:

- Port of entry designator: WCS .....
- Group: 1
- Drawing number: Numbering will start at 1
- Revision number:Will start at 01

Typical example: WCS ...../1/1 Rev 01

SB.02 Overlay Sheets/Layering Scheme (if required)

The overlay sheet designator identifies the type of drawing (example: overlay for water reticulation) and can be added to the drawing number:

- C: Existing structures, facilities, roads, paving, fencing, etc
- CR: Storm water drainage system
- CE: Electrical power and equipment
- CF: Fire-fighting equipment
- CS: Sewer network
- CT: Telephone lines
- CW: Water reticulation system

Typical example for the numbering of an overlay sheet: WCS ...../1/**CW**/1 Rev 01

SB.02. 04 DRAFTING CONVENTIONS

The Site Layout Plan should be created following engineering conventions and standards in order to represent a clear drawing simplifying the huge amount of visual information.

SB.01 Paper Prints

Preference is given to size A1 plans, but for reporting size A3 will be used and the information should still be legible in this format.

SB.02 Scale

The Site Layout Plan must be drawn according to scale and the following scales can be used:

- 1:200 or
- 1:500 or
- 1:1000

SB.03 **Plan Orientation**

The Port of Entry should be rotated on the plan so that the north point arrow are pointing in the direction of either the upper left or upper right quadrants of the plan. The north point arrow to be placed in the top right hand corner of the drawing space.

SB.04 **Contours**

Contours do not form part of the Site Layout Plan.

SB.05 **Line Weight**

Line weight/width is extremely important and features such as the services should be drawn with lines that are more prominent. The following line weights (mm) can be used:

1. 0.10
2. 0.15
3. 0.25
4. 0.30
5. 0.35
6. 0.50
7. 0.70
8. 1.00

SB.06 **Line Type/Style**

The following typical standard line types that can be used:

TYPICAL LINE TYPES

LINE DESCRIPTION	LINE APPEARANCE
1. Centre Line	
2. Solid/Continuous line	
3. Short broken line	
4. Long broken line	
5. Break line	
6. Hatch lines 45°	

SB.07 **Hatching**

Hatching are angled line patterns to indicate the position of permanent structures. The spacing between lines should be consistent at 45° to the structure. Park Homes must be shown on the plan, but without hatching.

SB.08 **Surfaced Areas**

Surfaced roads should be indicated by two solid lines as well as paved areas.

Two long broken lines should be used to indicate gravel roads.

SB.09 **Non Standard Line Types**

The following lines could be used for the various services, but must be identified in the Legend as a non standard line type:

LEGEND

		Colour Code	Line Weight (mm)
W	Water pipe line	Cyan	0.50
S	Sewer pipe line	Black	0.50
EL	Electrical overhead line	Magenta	0.50
EC	Electrical cable	Magenta	0.50
T	Telephone line	Green	0.50
G	Gas pipe line	Brown	0.50
x	Fence line	Black	0.30
	Surfaced Road	Black	0.30
	Gravel Road	Black	0.30
	Railway Line	Black	0.25

SB.10 **Lettering and Font Styles**

Use the standard font style and font size for engineering drawings and do not use stylized fonts.

Create all text in upper case letters, except for certain unit designations such as km, m, mm, kVA, etc.

SB.11 **Site Layout Plan**

When the Port of Entry is too large for one sheet, divide the plan into logical sections. Add a key layout in the title block showing how the various sheets should be joined together to obtain a layout of the entire site. This key layout should form part of each sheet.

SB.12 **Facilities**

The name of the facility should be written adjacent to the facility. If the space is limited, a reference number of the facility, which refers to a description of the facility, is inserted in a table format in or close to the title block as a legend.

SB.13 **Fences and gates**

Show the position of the security fence and all other fences as well as gates. Include the height of all fences.

SB.14 **Destinations**

The destination to the nearest town with a pointing arrow should appear on all incoming and outgoing roads.

SB.02. 05 **SERVICES**

The position of the services is extremely important and should be indicated by lines that are more prominent/thicker. The description of the line types for the various services must be given in the Legend. See DIR04.09.

The following services, where applicable, must be shown on the Site Layout Pan for future reference:

SB.01 **Water Reticulation System**

Show the position of the water reticulation system and include the following:

- Pipe lines, pipe sizes, type of pipes, valves, meters, boreholes and tanks (include capacities). Show the direction of flow.

SB..02 **Sewerage Network**

Show the layout of the sewerage network and include the following:

- Pipe lines, pipe sizes, type of pipes, manholes, rodding eyes, septic tanks (include capacities), french drains (include volumes). Show the invert levels of all manholes as well as the position and level of the bench mark.

SB.03 **Electrical Power**

Indicate the position of electrical power lines, cables, substations, kiosks, flood lights along the perimeter as well as street lights and area lighting.

Air-conditioning units should be numbered and listed in table format including the type and size.

Give the source(s) of electrical power.

SB.04 **Telephone Lines**

Show the position of overhead telephone lines.

SB.05 **Storm water System**

Show the layout of the storm water system, culverts and sizes as well as inlet and outlet structures. Give the invert levels of all structures as well as the position and level of the bench mark.

SB.06 **Fire Fighting Equipment**

Include the pump installation, tank and capacity, fire hydrants, valves, meters, fire extinguishers and fire hose reels.

Fire extinguishers should be numbered and listed in table format including the type and size.

SB.02. 06 **ELECTRONIC FORMAT**

A complete set of electronic files shall be placed on CD(s) in a Data Exchange Format (DXF) or DWG format.

Affix a stick-on label to the CD with the following information:

- Department of Public Works and logo
- Name of Port of Entry
- WCS number
- Description: SITE LAYOUT PLAN
- Drawing number(s)
- Date issued
- Electronic format: DXF or DWG

SB.02. 07 **SUBMISSION**

The Consultant must submit A1 and A3 paper prints as well as a CD(s) of the Site Layout Plan(s) to the Project Manager before the Final Approval Certificate is signed.

The CD(s) must include the entire overlays/layering scheme and a compound drawing which includes all the services and information on one Site Layout Plan in DXF/DWG format.

During the Repair and Maintenance phase, the Project Manager will forward a request from time-to-time to the Consultants to prepare an A3 print(s) of the Site Layout Plan, which will be submitted as part of a report to Department of Public Works.

ADDITIONAL SPECIFICATION

SC GENERAL DECOMMISSIONING, TESTING AND COMMISSIONING PROCEDURES

CONTENTS

SC 01	SCOPE
SC 02	PHASED REPAIRS AND UPGRADING OF THE INSTALLATION
SC 03	DETAILED COMMISSIONING PROGRAMME
SC 04	COMMISSIONING COMMUNICATION CHANNELS
SC 05	COMMISSIONING RISK CONTROL AND PENALTIES
SC 06	DELAYS TO SCHEDULED SHUTDOWNS
SC 07	MATERIAL AND EQUIPMENT PROCUREMENT AND PROTECTION
SC 08	TESTING OF EQUIPMENT PRIOR TO RECOMMISSIONING
SC 09	TESTING OF MATERIAL AND EQUIPMENT SPECIFICATIONS AND WORKMANSHIP
SC 10	DECOMMISSIONING
SC 11	RECOMMISSIONING, COMMISSIONING AND COMPLETION OF INSTALLATIONS
SC 12	MEASUREMENT AND PAYMENT

SC 01 SCOPE

This specification encompasses all aspects of the repairs of systems and services that form part of an installation, including the factory and on-site testing, decommissioning, installation and commissioning of all equipment, instrumentation and materials reconditioned, supplied and installed as part of an installation as defined in Additional Specification SA: General Maintenance.

The specified procedures are the minimum requirements to be supplemented by various technical and particular specifications in this document. These requirements shall apply to all commissioning work scheduled as part of the initial repair work on installations, as well as commissioning work that is part of the routine preventive and corrective maintenance.

SC 02 PHASED REPAIRS AND UPGRADING OF THE INSTALLATION

When an installation consists of parallel systems or components, the complete installation and all its components shall be repaired without taking the complete installation out of commission at any time, unless otherwise specified in the Technical Specifications.

In order to schedule the repairs of an installation, all work shall be done in phases as specified in the Technical Specifications and illustrated in detail on the drawings. Repairs of each part shall terminate with the successful reconditioning of that part.

Each part of the system shall be decommissioned and recommissioned in the sequence specified in the Technical Specifications and on the drawings.

The Contractor shall install all the necessary temporary specials, spool pieces, supporting frames and brackets to provide a functional link between each repaired and upgraded part of the system and the part of the installation that has not yet been repaired and upgraded during recommissioning. Electrical and instrumentation Contractors and subcontractors shall ensure

that the system remains operational as specified, using either existing or newly installed instruments, cables and controls.

Payment is based on the successful recommissioning of a specific part of the installation.

SC 03 DETAILED COMMISSIONING PROGRAMME

No work of any kind on any part of the existing installation shall take place prior to the Engineer's approval of a detailed commissioning programme. This programme shall be submitted in addition to the general programme for planning and monitoring contract progress, at least two weeks prior to any programmed shutdown. The programme shall be the coordinated product of the Engineer and the User Department. Commissioning programmes shall take all process requirements into account. The detailed commissioning programme shall indicate all actions necessary for:

(a) Decommissioning
(b) Recommissioning of parts of the installation
(c) Commissioning of the installation as a whole.

All work deemed necessary for practical completion of the installation shall be indicated on the commissioning programme.

The programme shall indicate the milestones to be achieved before shutdown and decommissioning as activities of zero duration, all of which shall be prerequisites linked to the "start" of decommissioning.

The following specific actions shall be included in the programme, clearly indicating the time allowed for:

(a) Communication, including the time for confirmation of the official shutdown;

(b) Draining parts of the installation to sumps, where available, or to other storage facilities provided by the Contractor;

(c) Installation of temporary blanked flanges or other means of isolation where necessary;

(d) Partial decommissioning and removal of existing material and equipment to perform work, including protection of pipework against hot work, cutting into pipework, loosening bolts, flanges and all other work necessary for recommissioning;

(e) Installation of temporary functional links (pipe specials) between any two parts of the installation;

(f) Each individual field weld, subject to the Engineer's approval;

(g) Non-destructive testing of materials, for manufacturing/construction quality and for producing test results;

(h) Installation of all instruments and their connection to SCADA systems;

(i) Installation and connection of all power cables;

(j) De-aeration of all pipe sections;

(k) Communication between the Contractor, the Engineer, the Employer and the User Client;

(l) Start-up of the complete system, indicating start-up procedures.

Inspection of the prefabricated installation, testing of all equipment prior to final commissioning, pressure testing and non-destructive testing shall be clearly scheduled in the project progress programme.

Day 30 tests and instruction/training sessions with the User Department shall be scheduled in the project progress programme.

SC 04 COMMISSIONING COMMUNICATION CHANNELS

The Contractor shall communicate with the User Department's operating and maintenance managers via the Engineer to finalise start-up after decommissioning in accordance with the specified procedures.

The following key parties shall be involved before and during shutdown and decommissioning of any part of the system:

Contractor: Site Agent

Engineer: Resident Engineer

Employer: Representative of Area Manager

User Department: Operating and Maintenance Manager.

SC 05 COMMISSIONING RISK CONTROL AND PENALTIES

(a) The safety instructions stipulated by the Occupational Health and Safety Act, 1993 (Act 85 of 1993) shall be adhered to at all times.

(b) The Contractor shall not be allowed to work on any part of the installation without obtaining a commissioning check permit on the day of shutdown. A typical example of a commissioning check permit is included in this document, referring to the minimum required milestones to be achieved prior to decommissioning.

(c) Payment reductions for exceeding the maximum permissible down-time during maintenance shall apply as stipulated in the General and special Conditions of Contract. This stipulation does not include shutdowns during programmed routine preventive maintenance work.

SC 06 DELAYS OF SCHEDULED SHUTDOWNS

Specific dates on which an installation shall be shut down for decommissioning shall be finalised during coordination meetings of all the parties involved, including the Engineer, the Employer, the User Department and the Contractor.

Although a date for each shutdown will be scheduled at the coordination meetings, the actual date of the shutdown shall be determined by the process requirements and user demands, allowing for a window of seven (7) calendar days from the date of the planned shutdown.

Prospective tenderers shall make allowances in their tendered rates for the shutdown to occur at any time during this seven-day period. No additional payment shall be due if the shutdown occurs within this seven-day period.

If the Contractor fails to commence with the shutdown and decommissioning of the installation

within the scheduled period, all additional costs arising from the shutdown at a later stage shall be for the Contractor's account.

SC 07 MATERIAL AND EQUIPMENT PROCUREMENT AND PROTECTION

It is the responsibility of the Contractor to ensure the functionality of all units of new equipment prior to decommissioning, before installation of any specific part of the system. If the equipment, whether free-issued or not, does not conform to the functionality specifications during pre-installation testing, the Contractor shall notify the Engineer in writing without delay.

SC 08 TESTING OF EQUIPMENT PRIOR TO RECOMMISSIONING

The equipment shall be tested for functionality after pre-installation of equipment in parts of the installation.

(a) The Contractor shall inform the Engineer well in advance of his intention to perform the first tests and start-up of equipment in order to allow a representative of the Engineer to witness the tests. The extent of all precommissioning tests and checks shall be agreed with the Engineer prior to commencement.

(b) The Contractor shall first conduct his own tests of the equipment. When he is satisfied that the equipment complies with the specifications, he shall notify the Engineer that he is ready for the official tests on completion. The Contractor shall not conduct an official test without the Engineer's presence or approval. All equipment shall conform to the specified requirements.

(c) Before starting up any part of the installation or filling the tanks and sumps with liquid, the Contractor shall clean out the tanks, pipes, fittings, equipment or structures and, if necessary, make arrangements with other Contractors to remove their building rubble form the structures, check that all safety devices and alarms have been set and activated, all nuts have been tightened correctly, that all the equipment is complete and ready for start-up, that the plant has been installed correctly, and that copies of the operating manuals have been handed to the Engineer.

(d) The Contractor shall start up each section of equipment after ensuring that oil fillings, lubrication, vibration monitoring, cable termination and so on have been correctly completed. He is also responsible for the first refilling of all lubricating oils and for adjusting the plant to operate according to the specifications. Before any equipment is started or energised, the Contractor shall ensure that it is safe in terms of the personnel and equipment on the site to do so. The Contractor's tendered rates and sums shall allow for these costs.

All equipment shall be tested according to the relevant specifications that form part of this document.

No shutdown or decommissioning of any part of the system shall take place unless all the equipment to be installed have been tested by the Contractor and approved by the Engineer.

SC 09 TESTING OF MATERIAL AND EQUIPMENT SPECIFICATIONS AND WORKMANSHIP

All results of the required non-destructive, pre-commissioning and manufacturing testing shall be submitted to the Engineer well in advance of testing the equipment on recommissioning. All such test results shall be submitted before Day 1 commissioning tests and no certificate of practical completion shall be issued prior to receipt of the required test results.

SC 10 DECOMMISSIONING

The decommissioning period shall commence on the instant of the entire system shutdown. The recommissioning period shall start in parallel with decommissioning.

Shutdown and decommissioning shall not proceed without compliance with all the milestones in the detailed commissioning programme. The list of milestones in this document is not complete but indicates the minimum requirements. Milestones to be achieved prior to shutdown and decommissioning may be added to the programme at the Engineer's discretion.

The Contractor is responsible for the safe decommissioning of all material, equipment, components and instrumentation to avoid damage to parts or components of the installation.

SC 11 RECOMMISSIONING, COMMISSIONING AND COMPLETION OF INSTALLATIONS

SC 11.01 RE-COMMISSIONING

Re-commissioning means the commissioning of all sections or systems that form part of the installation to meet the required functional specifications for the individual section or system prior to commissioning of the repaired and upgraded installation.

The Contractor is responsible for the recommissioning of all parts of the system and he shall perform the tasks listed below.

(a) Prior notice shall be given to and proper arrangements shall be made for recommissioning with the Employer, the Engineer, the User Client and the suppliers of equipment that is affected by recommissioning and testing.

(b) If plant and equipment supplied by others are to be commissioned, the supplier's specific permission together with all requirements related to commissioning shall be obtained prior to recommissioning without in any way altering the Special Conditions of Contract with reference to the Contractor's liability in terms of defects.

(c) The new and reconditioned parts of the installation shall be thoroughly inspected by a responsible representative of the Contractor to ensure that manufacture/construction and installation work have been completed according to the specifications.

SC 11.02 COMMISSIONING AND COMPLETION OF REPAIRS AND UPGRADING WORK

Commissioning means commissioning of the repaired and upgraded installation as a whole to perform in perfect working order.

(a) The commissioning period for each installation as a whole:

(i) Commences with the Day 1 tests of the complete repaired and upgraded installation;

(ii) Includes commissioning of all sections and systems that have been recommissioned prior to the Day 1 tests;

(iii) includes training of the User Department's operating personnel and the maintenance teams;

(iv) Terminates with a Day 30 test in compliance with the commissioning report.

(b) The purpose of the Day 1 tests is to ensure that:

(i) The electronic, electrical and mechanical equipment and materials are functional and in perfect working order with respect to each other and the installation as a whole;

(ii) The commissioning period, including training, commences on successful completion of the Day 1 tests;

(iii) The Contractor is entitled to a certificate of practical completion for the repairs and upgrading of the installation on successful completion of the Day 1 tests;

(iv) The Contractor becomes responsible for maintenance of the installation and is entitled to performance-based payments in compliance with the Special Conditions of Contract and Additional Specification SA: General Maintenance.

(c) Commissioning shall be undertaken over a trouble-free period up to Day 30. During this period the Contractor shall train the User Department's operators and his maintenance team for operating and maintaining the installation. This training shall allow for all possible operational conditions, including emergency conditions, the correct servicing of every part, the type of oil or grease to be used, and similar tasks: The training shall take place by means of demonstrations, and the operating and maintenance manuals shall be referred to for this purpose.

(d) Day 30 commissioning tests shall be performed thirty calendar days after the successful completion of the Day 1 tests. The commissioning period of the installation terminates upon the successful completion of the Day 30 tests.

(e) The Contractor shall conduct all the tests required to satisfy the Engineer that the installation is performing according to specification, and shall make allowance for these tests in his tendered rates and prices. These tests shall be conducted to certify that the installation, as repaired, upgraded and installed, is in perfect working order in terms of the specified functional requirements. The Contractor shall note that all equipment is to be tested as part of an installation, where appropriate, and will not be passed if all protection devices, interlocking with other equipment, etc, are not fully functional.

(f) The Engineer shall provide commissioning sheets to the Contractor at least three weeks before the commissioning period commences, for all the equipment supplied, reconditioned and installed by the Contractor. The Contractor shall complete the commissioning sheets during the commissioning period and all items listed shall be entered. No completion certificate will be issued for an installation of which the equipment has incomplete commissioning reports. Information that is not available or applicable, or instances where certain tests have not been carried out, are subject to the Engineer's decision.

(g) Commissioning of the plant (which includes the thirty days between the Day 1 and Day 30 tests) includes operating under conditions that adequately prove that all the specifications have been met. All safety devices, standby plant, automatic controls and protection devices shall be adequately tested for reliability and correct functioning. The Contractor may be called upon to repeat testing during the maintenance period if the performance of the equipment is suspected to be substandard. Costs related to such tests shall be for the Contractor's account and shall comply with the specified requirements. Copies of updated commissioning reports shall be provided to the Engineer within two days after a test has been performed.

(h) The Contractor is responsible for providing all labour and materials (including testing equipment) during the commissioning period and shall carry out all the servicing and adjustments to ensure that the installation operates as specified. Valid calibration

certificates shall be available for all testing equipment on the site during the commissioning period.

(i) Programmes for the Day 1 tests, Day 30 tests and instruction/training sessions with the User Department's operators and maintenance team shall be prepared by the Contractor and submitted to the Engineer at least two weeks before the commissioning period commences. The Contractor shall provide weekly updates of these schedules for the duration of the commissioning period.

(j) The Contractor shall note that if any equipment fails during the commissioning period, the equipment shall be repaired or replaced by the Contractor, and testing and commissioning shall commence from scratch.

(k) Successful commissioning of an installation entitles the Contractor to a certificate of completion for the installation.

SC 12 MEASUREMENT AND PAYMENT

SC.01 **Decommissioning and removing parts of the installation**.....Unit: sum

The unit of measurement shall be a sum.

The tendered sum shall include full compensation for all actions and labour required for shutdown and decommissioning of the entire installation as specified to enable decommissioning and removal of parts of the installation as listed in the Schedule of Quantities.

The tendered sum shall include full compensation for the decommissioning and removal of the parts and components of an installation as listed individually in the Schedule of Quantities, including actions and/or costs resulting from such work, to enable the recommissioning of parts of the repaired and/or upgraded installation.

The tendered sum shall include full compensation for final dismantling of decommissioned materials and equipment and the removal of all such items to stores on site, as directed by the Engineer.

SC.02 **Commissioning and testing of parts of the installation**.....Unit: sum

The unit of measurement shall be a sum.

The tendered sum shall include full compensation for commissioning and testing parts of the installation to be operational while still incomplete in relation to the entire repaired and/or upgraded system or installation.

Separate payment items shall be scheduled for separate parts of the system.

SC.03 **Commissioning and testing of the installation**.....Unit: sum

The unit of measurement shall be a sum.

The tendered sum shall include full compensation for commissioning the upgraded installation as a whole and for all costs and expenses related to labour, removal, repair, reinstallation and testing of material and equipment during the commissioning period for each part of the installation. The tendered sum shall include full compensation for the final commissioning and

testing, including Day 1 and Day 30 tests, of all parts and components of the installation to the specified functional condition.

Payment shall be based on successful completion of the Day 30 tests.

SC.04 **Provision for safety and hot work requirements during shutdown** ..... Unit: number

The unit of measurement shall be the number of shutdowns during which all the required safety and hot work requirements are provided.

The tendered rates shall include full compensation for all the required safety and hot work requirements and arrangements in accordance with the specifications during a shutdown period, including all labour, personnel, equipment, materials and consumables required.

ADDITIONAL SPECIFICATION

SD GENERAL TRAINING

CONTENTS

SD 01 SCOPE
SD 02 BASIC METHOD REQUIREMENT
SD 03 TRAINING OF USER CLIENT PERSONNEL
SD 04 TRAINING OF MAINTENANCE PERSONNEL

SD 01 SCOPE

The Contractor shall be responsible for providing diverse training to various groups, including operating and maintenance personnel. The Contractor shall develop and facilitate initial training sessions for all parties, as well as training sessions at specified intervals to revive and supplement the initial training. An accredited trainer shall present all training sessions.

This specification includes all requirements for methods to be employed, the syllabus required by the User Client, the syllabus required for maintenance managers and workers and the method of measurement and payment.

SD 02 BASIC METHOD REQUIREMENT

The Contractor shall be responsible for conducting a complete investigation of the groups that have to be trained in order to compile a proper training plan.

The investigation shall cover at least the following aspects:

(a) Assess likelihood of conformance to task-specific requirements *(status quo)* of capabilities.

(b) Identify minimum pre-qualification criteria in terms of existing knowledge and skill levels in relation to reaching target requirements.

(c) Evaluate personnel in terms of pre-qualification criteria and tasks to be performed (skills profile).

(d) Identify training needs.

(e) Develop appropriate and accredited training courses and material in terms of task-specific activities and identified training needs, and compile the training syllabus per installation.

The Contractor shall identify an accredited trainer to assist in the above investigation and finalise the compilation of a training plan and syllabus. Approval of the syllabus shall be a condition for issue of a Certificate of Practical Completion for repair of an installation. Once the training plan and syllabus have been approved the Contractor shall liaise with the Engineer to establish a date and appropriate training venue that would be conductive to learning to perform training.

The training shall be revived within one month after initial training to determine its effectiveness. Further regular training sessions shall be scheduled according to the effectiveness of initial training.

The Engineer will be responsible for recording all training sessions and shall keep an attendance register. The Engineer will also examine the trainees officially with each training session and issue certificates of trainees' acquired skills on satisfactory completion of the training.

SD 03 TRAINING OF USER CLIENT PERSONNEL

The Contractor's training shall include training of the User Client's operators on biannual basis to acquaint them with operating of installations (especially electrical and mechanical systems). The training sessions shall comprise lectures and on-site (hands-on) demonstrations, and shall be conducted over two-day periods. The Contractor shall liaise with the Engineer to prepare for the correct number of trainee operators.

The content of training courses for operators shall include the essential features of operating the installation, as also described in the Operating and Maintenance Manuals.

Completion of an installation shall, in terms of the Special Conditions of Contract, be subject to successful completion of training. The training course shall also be based on the Operating and Maintenance Manuals. No training shall commence without the Engineer's approval of the final draft Operating and Maintenance Manual for the particular installation.

SD 04 TRAINING OF MAINTENANCE PERSONNEL

The Contractor shall train either his own employees, or local labourers, with regard to maintenance of the installation.

The training of maintenance managers shall include the following aspects:

(a) Awareness of safety, health and personal hygiene in terms of the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993);

(b) functioning of the installation, including all its systems, services, parts of buildings and infrastructure;

(c) all specific tasks related to routine preventative maintenance;

(d) interpretation and understanding of Operating and Maintenance Manuals with specific reference to requirements in cases of corrective and breakdown maintenance, and

(e) repair/reconditioning and installation/construction of equipment and materials forming part of an installation.

SD 05 MEASUREMENT AND PAYMENT

SD.01 **Development of a syllabus for training of operators** ..... Unit: sum

The unit of measurement shall be the lump sum for the compilation of a training syllabus for each installation that shall be measured separately in the Schedule of Quantities.

The tendered sum shall include full compensation for identification of pre-qualification criteria and training needs, staff assessment and evaluation prior to training, all technical research, development and compilation of an accredited training course and course material, and all other actions necessary for commencement of official training sessions in accordance with the specification.

The tendered sum shall also include full compensation for the compilation of a draft syllabus and for incorporation of all the Engineer's comments and corrective requirements.

SD.02 **Presenting a training course for operators** ..... Unit: number

The unit of measurement shall be the number of training courses presented based on the approved syllabus.

The tendered rate shall include full compensation for presenting a two-day training course, including lectures, demonstrations, on-site training and hands-on development and improvement of operators' skills to enable the operators to operate installations safely and efficiently.

The tendered rate shall include full compensation for the Contractor's time, appointment of the accredited trainer for the course, and for all material expenses such as paper hand-outs and slides for the whole group of trainees, the number of which shall be determined during development of the training course.

SD.03 **Presenting a training course for maintenance personnel** ..... Unit: number

The unit of measurement shall be the number of training courses presented.

The tendered rate shall include full compensation for presenting a two-day training course, including lectures, demonstrations, on-site training and hands-on development, and improvement of maintenance personnel's skills to enable them to maintain and repair installations safely and efficiently at the satisfactory functional condition specified.

The tendered rate shall include full compensation for the Contractor's time, appointment of the accredited trainer for the course, and for all material expenses such as paper hand-outs and slides for the whole group of trainees, the number of which shall be determined during development of the training course.

ADDITIONAL SPECIFICATION

SF GENERAL OPERATION

CONTENTS

SF 01	SCOPE
SF 02	OPERATION REQUIREMENTS
SF 03	OPERATION CONTROL
SF 04	COMMUNICATION
SF 05	PERFORMANCE MEASUREMENT
SF 06	MEASUREMENT AND PAYMENT

SF 01 SCOPE

Operation of the specified systems, services or equipment shall all be referred to as "Operation of an Installation". Operation of an installation shall ensure effective functioning and optimum operational condition thereof. Monthly operation responsibilities for each installation including all units and components as specified shall commence with access to the installation.

Operation of an installation shall be performed in accordance with the Technical and Particular Specifications and the Operating and Maintenance Manuals.

Remuneration for operating "installations" (systems, services and equipment) is provided for in the Bills of Quantities by means of monthly payment items, depending on the score achieved by the operators.

This Additional Specification covers operation requirements, site operation administration, communication operation performance measurement, as well as the items for measurement of the Contractor's service level and resulting payment.

SF 02 OPERATION REQUIREMENTS

SF 02.01 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall operate the complete installation for the 36-month Contract period.

Operation implies and shall include hourly operation, daily operation (night and day), weekly as well as monthly operation on all components of the specified installations, *including* public holidays and non-working days.

The Contractor shall operate the equipment as detailed in the Technical and Particular Specifications and the operation and maintenance manuals. Each operational function, task, test or action shall be recorded in an approved format and listed in a quarterly report by the Contractor.

As part of the repair of each installation, the Contractor shall submit a set of Operating and Maintenance Manuals where applicable. The Contractor shall ensure through training that the operating and maintenance personnel are conversant with the instructions as presented in the Operating and Maintenance Manuals. Continued training shall be

included in the scope of operation work for the duration of the 36-month Contract, in accordance with Additional Specification SD: General Training.

The Operating and Maintenance Manuals, as approved by the Engineer, shall be used as a basis of hourly, daily, weekly and monthly operations. The Contractor shall perform all operational tasks as described in the Operating and Maintenance Manuals.

SF 02.04 **COMPONENTS INCLUDED IN OPERATION SCOPE**

The main sections of a facility with their subsections are as set out in the Technical Specifications and Particular Specifications where applicable and in the Bill of Quantities and will each be deemed "an installation". Operation, as specified, will be applicable to all of the installations listed in the Bill of Quantities under the "OPERATION" section

SF 02.05 **COMMENCEMENT OF OPERATION PERIOD**

Operation responsibilities for an installation shall include operation of all individual units, equipment or components thereof, and shall commence with access to the installation.

SF 02.09 **SITE OPERATION RECORD KEEPING**

The Contractor shall provide and maintain hard-cover A4 Operation files for each installation that needs to be operated for the duration of the Contract. All schedules, checklists, actions, tasks, reports, hourly, daily and monthly operational records and quarterly reports shall be filed.

Site operation records shall be submitted to the Engineer at each monthly meeting.

These files will become the property of the Department of Public Works after the completion of the 36 months contract.

SF 02.10 **SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL**

SF 02.10.01 **Labour (qualified where necessary)**

Competent personnel (qualified where necessary) that have been trained by the Contractor or external training authority, in accordance with Additional Specification SD: General Training shall execute all operational work.

SF 02.10.02 **Equipment**

All tools and equipment required for operation work shall be supplied by the Contractor at his cost (except where otherwise provided).

SF 02.10.03 **Material**

All material, equipment, testing equipment, protective clothing and appurtenances necessary for the complete operation of each installation shall be supplied and installed by the Contractor at his cost. Remuneration for *maintenance* actions and material shall be measured elsewhere in this document.

The technical specification of each specific installation to be operated, shall indicate whether the Contractor should supply other consumables (such as chemicals or coal) as part of his operation requirements.

SF 03 OPERATION CONTROL

Operation quality control shall be the responsibility of the Contractor. The Contractor shall introduce his own quality assurance system to assist him in ensuring that hourly, daily and monthly operational tasks are performed as described in the operating and maintenance manuals and Technical and Particular Specifications.

SF 04 COMMUNCATION

The Contractor shall communicate in writing to the Engineer the following operational results on a monthly basis:

(a) The quantity of ground water or surface water extracted and the total recorded as at the last day of each month.

(b) The quality of waste water irrigated or discharged into the environment and the total recorded weekly (compiled monthly).

(c) The quantity of the waste water by grab sampling, at the point at which the waste water enters the effluent disposal system.

(d) Record keeping of activities as specified shall be up to date on a daily basis and available to the Engineer on inspection.

(e) The quality of domestic waste water discharged into the environment.

(f) Details of failures and malfunctions and details of measures taken to avoid environmental pollution.

SF 05 PERFORMANCE MEASUREMENT

The Contractor's performance shall be measured against the following parameters:

SF 05.03 PERFORMANCE-BASED PAYMENT

Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly operation payments for the various installations.

SF 05.03.01 Score-card

The Engineer shall inspect each installation monthly after access to the installation has been granted. The Engineer shall use a score-card to measure the quality of operational tasks rendered by the Contractor during the preceding month, on all components that form part of the installation, in accordance with the Operation specifications. The Engineer will record his inspection directly onto the score-card. The score-card shall serve to evaluate ten performance indicators each month in the manner set out below.

The Contractor shall always have the opportunity to score the maximum points, provided that his operation work complies with the Specifications. The Employer shall be protected against a reduced or unsatisfactory operational level and may refuse payment on such points.

SF 05.03.02 Performance indicators

Performance indicators shall be selected to measure the Contractor's service level of operation.

The Engineer shall select ten (10) performance indicators each month, which shall focus on the measurement of operation quality against the relevant specifications for the ensuing month. All ten (10) performance indicators are known to both the Engineer and the Contractor.

The Contractor shall aim to perform satisfactorily on all ten performance indicators. All indicators shall be selected from the scope of his normal hourly, daily and monthly operation work and shall be based on the operation control plan and operating and maintenance manuals. The work shall either be satisfactory, or unsatisfactory, and the Contractor shall score one (1) or zero (0) respectively per indicator.

Performance indicators shall be used to focus on certain key aspects of the work and shall in no way limit the Contractor's responsibility to do all the required work.

SF 05.03.03 Satisfactory performance

The Engineer shall inspect the site on an arbitrary day to measure the quality of operation against the ten selected performance indicators. Should the Contractor score the maximum points (10) he shall receive his full operation payment for the installation. Should the quality of operation be unsatisfactory according to the score-card, the Contractor may fail to achieve full payment due to a reduced service level. Each monthly payment for operation shall be subject to evaluation based on the score-card.

A copy of the score-card including a guideline for the use thereof is included in this Specification.

SF 06 MEASUREMENT AND PAYMENT

SF.01 OPERATION OF AN INSTALLATION ..... Unit: point

The unit of measurement shall be a point. Each month shall represent a maximum of ten points and a minimum of zero points, depending on the performance and quality of operation. Ten points per month, determined by using the tendered rate per point, shall include full compensation for all liabilities and obligations described or implied in the Contract documents and deemed by the Contractor to be applicable to the operation of an entire installation, and all appurtenant works deemed to form part thereof, as defined in the relevant Technical or Particular Specifications.

The combined bid rate for ten points shall also include full compensation for complete hourly, daily, weekly and monthly operation.

Although ten points per month shall include full compensation for hourly, daily and monthly operation, the Contractor might fail to achieve all points applicable in the event of unsatisfactory performance, in which case he shall still perform all operation requirements according to specification, but at his own cost where a reduction in points awarded is insufficient to cover his cost.

Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly operation payments for the various installations.

SF.02 **APPOINT MANDATORY CLASS I AND CLASS II PROCESS CONTROLLERS** ..... Unit: point

The unit of measurement shall be each month the stipulated number of process controllers has performed the duties as prescribed in the Contract and Technical Specifications. Each month shall represent 16 hours per day for 7 days per week. The rate tendered for the process controllers shall include all duties as required by the process controllers in terms of the Contract and Technical Specifications.

The item shall not limit the Contractor to the amount of personnel required to operate the works but shall be deemed the minimum requirement for the operation of the works as required in the Contract and Technical Specifications.

Any additional labour or process controllers required to perform any preventative or breakdown operation work shall be included in the Contractor's rate tendered for the ten operation scoring points per month.

The item shall be deemed mandatory and the Contractor shall be liable in terms of the ten operation scoring points per month to ensure that the required process controllers are appointed.

Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly operation payments for the various installations.

SF.03 **APPOINT MANDATORY CLASS III AND CLASS IV PROCESS CONTROLLERS** ..... Unit: point

The unit of measurement shall be each month the stipulated number of process controllers has performed the duties as prescribed in the Contract and Technical Specifications. Each month shall represent 8 hours per day for 5 days per week. The rate tendered for the process controllers shall include all duties as required by the process controllers in terms of the Contract and Technical Specifications.

The item shall not limit the Contractor to the amount of personnel required to operate the works but shall be deemed the minimum requirement for the operation of the works as required in the Contract and Technical Specifications.

Any additional labour or process controllers required to perform any preventative or breakdown operation work shall be included in the Contractor's rate tendered for the ten operation scoring points per month.

The item shall be deemed mandatory and the Contractor shall be liable in terms of the ten operation scoring points per month to ensure that the required process controllers are appointed.

Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly operation payments for the various installations.

DEPARTMENT OF PUBLIC WORKS

MAINTENACE SCORE-CARD

CONTRACT NUMBER: WCS _____

CONTRACT: _____

CONTRACTOR: _____

ENGINEER: _____

INSTALLATION: _____ **MONTH:** ____ OF **36**

The following components of the installation were selected by the contractor at the Monthly Operation Meeting nr. ____ as performance indicators to be tested according to specification:

1. ENGINEER'S SELECTION

		0	1
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
1.10			

TOTAL SCORE: ____

_____ _____ D D / M M / Y Y

Engineer's Representative **Signature** **Date**

GUIDELINE FOR THE USE OF THE OPERATION SCORE-CARD

The score-card and performance indicators must be used as an Operation management tool. The aim with each score-card is to ensure that:

(a) the project focuses on key aspects of Operation per month;
(b) the Contractor receives payment for his work, and
(c) the Employer receives value for money and a sustained high level of service.

Performance indicators must be selected to measure the Contractor's service level of operation that will be based on the Operating and Maintenance Manuals (containing information specified in the Contract documentation).

For each specific installation, different performance indicators must be defined each month based on the content of the Operation in relation to the scope of Operation work per installation and must be based on the Contractor's service level record on operation.

The Contractor and the Engineer must agree on all performance indicators at an occasion prior to the month during which the Contractor's performance (service level of Operation) will be measured.

ADDITIONAL SPECIFICATION

SH HIV/AIDS REQUIREMENTS

CONTENTS

SH 01 SCOPE
SH 02 MAINTENANCE REQUIREMENTS
SH 03 MAINTENANCE CONTROL
SH 04 COMMUNICATION
SH 05 PERFORMANCE MEASUREMENT
SH 06 MEASUREMENT AND PAYMENT

SH 01 SCOPE

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

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

SH 02 DEFINITIONS AND ABBREVIATIONS

SH 02.01 DEFINITIONS

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

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

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

SH 02.02 ABBREVIATIONS

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

SH 03 BASIC METHOD REQUIREMENT

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

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

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

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

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

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

- The nature of the disease;
- How it is transmitted;
- Safe sexual behaviour;
- Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- Attitudes towards other people with HIV/AIDS;
- Rights of the Worker in the workplace;
- How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially;
- How the Service Provider will support the Awareness Champion;

- Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- How the workshops will be presented, including frequency and duration;
- How the workshops will fit in with the construction programme;
- How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- How the video will be used;
- How the Service Provider will elicit maximum participation from the Workers;
- A questions and answers slot (interactive session)
- The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated.

SH 04 HIV/ AIDS AWARENESS EDUCATION AND TRAINING

SH 04.01 WORKSHOPS

The Contractor shall ensure that all Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Public Works, is to be screened to Workers at workshops. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

SH 04.02 RECOMMENDED PRACTICE

SH 04.02.01 WORKSHOP SCHEDULE

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

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

SH 04.02.02 SERVICE PROVIDERS

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

SH 04.02.03 HIV/AIDS SPECIFIC LEARNING OUTCOMES AND ASSESSMENT CRITERIA

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

04.02.03.01 UNIT 1: THE NATURE OF HIV/AIDS

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

Assessment Criteria:
1. Define and describe HIV and AIDS.
2. List and describe the progression of HIV/AIDS.

04.02.03.02 UNIT 2: TRANSMISSION OF THE HI VIRUS

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

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

04.02.03.03 UNIT 3: HIV/AIDS PREVENTATIVE MEASURES

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

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

04.02.03.04 UNIT 4: VOLUNTARY HIV/AIDS COUNSELLING AND TESTING

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

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

04.02.03.05 UNIT 5: LIVING WITH HIV/AIDS

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

Assessment Criteria

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

04.02.03.06 UNIT 6: TREATMENT OPTIONS FOR PEOPLE WITH HIV/AIDS

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

Assessment Criteria

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

04.02.03.07 UNIT 7: THE RIGHTS AND RESPONSIBILITIES OF WORKERS IN THE WORKPLACE WITH REGARD TO HIV/AIDS

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

Assessment Criteria:

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

SH 04.03 DISPLAYING OF PLASTIC LAMINATED POSTERS AND DISTRIBUTION OF INFORMATION BOOKLETS

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Public Works.

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

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

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

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

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

SH 05 PROVIDING WORKERS WITH ACCESS TO CONDOMS

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

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

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

SH 06 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

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

SH 07 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

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

The Awareness Champion shall be responsible for:

7.1 Liasing with the Service Provider on organising awareness workshops;
7.2 Filling condom dispensers and monitoring condom distribution;
7.3 Handing out information booklets;
7.4 Placing and maintaining posters

SH 08 MONITORING

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

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

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

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

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

SCHEDULE A

HIV/AIDS PROGRAMME: SITE CHECKLIST

When did construction commence _____

Name of Departmental Project Manager _____

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

Tick the block if Contractor satisfactorily complied with specifications

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

Tick the block if Contractor satisfactorily complied with specifications																								
	PI				**PI**				**PI**				**PI**				**PI**				**PI**			
	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
Support service poster/s in highly trafficked area																								
Support service poster/s in a good condition																								
Please indicate the applicable number for the reporting period																								
Workers on payroll (at PI)																								
Sub-Contractors who will be on site for longer than 30 days (at PI)																								
Workshop attendees																								
Number of workshops held																								
Scheduled workshops according to approved workshop plan																								
Booklets distributed																								
Male condoms distributed																								
Female condoms distributed																								

SCHEDULE A

Date of progress inspection (dd/mm/yy) _____

Reporting period: (dd/mm/yy)_____ to (dd/mm/yy) _____

Deviations from HIV/AIDS awareness programme plan:

Corrective actions

_____
Representative/Agent

_____
Date

_____
Departmental Project Manager

_____
Date

SCHEDULE B

HIV/AIDS AWARENESS PROGRAMME: SERVICE PROVIDER REPORT

Reporting period: (dd/mm/yy)_____ to (dd/mm/yy) _____

Number of workshops conducted in reporting period _____

Number of scheduled workshops according to approved workshop plan _____

Deviations from workshop plan:

State reasons for deviating from workshop plan:

Corrective actions:

_____ _____

Service Provider Contractor

_____ _____

Date Date

SCHEDULE B

HIV/AIDS AWARENESS PROGRAMME: WORKSHOP CONTENT ADDRESSED

Fill in the applicable information with regard to each workshop conducted																												
	W/S				**W/S**				**W/S**				**W/S**				**W/S**				**W/S**				**W/S**			
	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
Content of workshop: *(Mark the content included)*																												
SLO1																												
SLO2																												
SLO3																												
SLO4																												
SLO5																												
SLO6																												
SLO7																												
HIV/AIDS in construction video																												
Indicate the duration of the workshop in hours																												
Total number of Workers																												
Indicate workshop venue																												

SCHEDULE B

HIV/AIDS AWARENESS PROGRAMME: ATTENDANCE REGISTER

Fill in your name and indicate attendance by ticking the appropriate date

		W/S				W/S				W/S				W/S				W/S				W/S				W/S			
		D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
No	**NAMES**																												

SCHEDULE C

CONTRACTOR HIV/AIDS PROGRAMME REPORT

Project name _____

Project Location _____

Contract value of project (R) _____

Department of Public Works Project Manager _____

HIV/AIDS Programme duration: (dd/mm/yy) _____ to (dd/mm/yy) _____

AWARENESS MATERIAL

Describe location of posters displayed during the programme _____

_____

Comments on posters _____

_____

Indicate total number of booklets distributed _____

Comments on booklets _____

_____

CONDOMS

Indicate total number of male condoms distributed _____

Indicate total number of female condoms distributed _____

Describe where male condom dispenser was placed _____

Describe where female condom dispenser was placed _____

HIV/AIDS WORKSHOPS

Indicate the total number of HIV/AIDS workshops conducted _____

Indicate the duration of workshops _____

Indicate the total number of Workers that participated in the HIV/AIDS workshops _____

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

_____

Comments on HIV/AIDS workshops on site _____

_____

GENERAL

Briefly describe programme activities and satisfaction with outcome _____

_____

_____

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

_____

_____

_____

Please indicate if your company has a formal HIV/AIDS policy focussing on HIV/AIDS awareness raising and care and support of HIV/AIDS Workers	Yes	No	Currently developing one

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

Excessive weight loss	Coughing or chest pain	Vomiting
Reactive TB	Pain when swallowing	Meningitis
Hair loss	Persistent fever	Memory loss
Severe tiredness	Diarrhoea	Pneumonia

Number of HIV/AIDS-related deaths _____

_____ _____

Contractor **Date**

_____ _____

Departmental Project Manager **Date**

ADDITIONAL SPECIFICATION

SI OCCUPATIONAL HEALTH AND SAFETY (OHS ACT)

CONTENTS

SI 01	APPLICABLE LEGISLATION AND REGULATIONS
SI 02	SCOPE OF WORK
SI 03	THE PRINCIPLE CONTRACTOR'S DUTIES
SI 04	THE PRINCIPLE CONTRACTOR'S SPECIFIC DUTIES
SI 05	THE PRINCIPLE CONTRACTOR'S SPECIFIC DUTIES WITH REGARD TO HAZARDOUS WORK OR ACTIVITIES

SI 01 APPLICABLE LEGISLATION AND REGULATIONS

This document was prepared to guide the Agent in the compilation of a Health and Safety Specification in terms of Sub-regulation 4(1)a of the Construction Regulation as published under Government Notice R. 85 of 07 February 2014. The content of this document or the fact it was made available for the use of the Agent will not relieve the Agent of any of his obligations in terms of the act.

The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) together with its applicable Regulations ("the Act") forms part of this Health and Safety Specification. Any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned to it unless the context otherwise indicates.

SI 02 SCOPE OF WORK

All work forming part of this Contract is divided into installations.

Schedule 2: Corrective Maintenance Related Work

- Structural And Building
- Plumbing And Drainage
- Building And Site Electrical
- Fencing, Cleaning And Site Keeping
- Bulk Water Supply Systems And External Water Networks
- Wastewater Treatment Works And Sewer Networks
- Roads And Storm Water
- Heating, Ventilation And Air Conditioning
- Conventional Fire Fighting Equipment
- Incinerator

Structural and Building Works

- General structural repair due to operation damage, wear and tear work such as paintwork, replacement of damaged items, e.g. doors, locks, windows, etc. on all buildings
- Apply varnish to all exterior timber doors

- Painting of roof timbers and facia boards
- Repair work to two face brick houses

Plumbing and Drainage

- Replacement of missing or damaged toilette seats
- Replacement of damaged toilette pans
- Service of Cisterns and flush masters
- Servicing of all taps, valves, etc.
- Servicing and cleaning of geysers due to hardness salt precipitation
- Replacement of geyser due to hardness salt precipitation
- Repair work to two face brick houses

Building and Site Electrical

- Supply and install a cable to the chlorinator
- Power supply to the borehole pump
- Power supply to the pumps and equipment at the WWTW
- Service the HV Switchgear and transformers
- Replace the distribution kiosks at the park homes
- Lamp replacements
- Service distribution boards
- Replacement of faulty/damaged lights, light switches and socket outlets

Fencing, Cleaning and Site Keeping

- Installation of ablution block equipment
- Damage repair to fences
- Cleaning of fire break areas at perimeter fences

Bulk Water & External Water Reticulation

- Pressure cleaning the three existing boreholes that were drilled during the construction Contract.
- Test 4 boreholes.
- Connect one borehole for additional water supply and allow for repair of borehole pumps if required to ensure the recommend flow.
- Installation of a motor control centre for the army base borehole.
- Recondition existing motor control centres when required.
- Borehole pipe connections for four boreholes that will be utilised.
- Servicing of all type of valves.
- Replace all types of valves when required.
- Once off cleaning out of manholes in borehole pump line.
- Service manhole covers opening mechanisms on pumping main valve chambers.
- Supply, deliver and install new enclosure complete with roof and floor at the army base borehole as per drawing.
- Supply, deliver and install new enclosure complete with roof and floor at the reservoir as per drawing.
- Supply and Delivery of a Chlorination System.
- Compile operating and maintenance manuals to supply a complete set of operating and maintenance manuals.
- Repair of pipe lines when required, valves, sprinklers and manholes.

Wastewater Treatment Works and Sewer Networks

- Repair (When necessary) two sludge removal pumps in order to accommodate gravity sludge removal and to ensure a 100mm diameter solid passing through the pump
- Recondition existing motor control centres when required.
- Clean at raw sewer pump station
- Service motor control centre if required
- Servicing of existing flow measuring equipment
- Service existing pumps and motors when so required
- Cleaning out of rotating biological contactor
- Repair a leak in the biological contactor chamber.
- Service motor control centre if required
- Cleaning out of chlorination channel
- Service chlorinator
- Servicing of all types of valves if required
- Update existing operating and maintenance manual
- Commissioning and testing of the installation

Roads and Storm water Drainage

- Road marking and maintenance of road signs
- Replacement of damaged paving at residential area
- Repair exiting bitumen road surface at the residential area

Standby Power

- General servicing of the existing Standby Generators
- Provide diesel for the standby generators for the duration of the contract

External Lighting

- Servicing of the existing perimeter, street and area lights
- Bulk Lamp replacement

Heating, Ventilation and Air-Conditioning Systems

- Servicing of all the existing air conditioners in the various buildings and residential units
- Replacement of air conditioners that are at the end of their life cycle at the park homes

Conventional Fire-Fighting Equipment

- Servicing of all fire fighting equipment
- Compile fire plans for operational buildings

Incinerator

- Servicing of burners and equipment of Incinerator
- Provide diesel for the Incinerator for the duration of the contract

SI 03 DUTIES OF A PRINCIPAL CONTRACTOR

The Principal Contractor's duties in terms of this Health and Safety Specification are, but not limited to, the following:

(1) A principal contractor must-

(a) provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;

(b) open and keep on site a health and safety file, which must indicate all documentation required in terms of the Act and the Regulations, which must be made available on request to an inspector, the client, the client's agent or a contractor; and

(c) on appointing any other contractor, in order to ensure compliance with the provisions Act-

(i) provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications contemplated in regulation (5)(b) pertaining to the construction work which has to be performed;

(ii) ensure that potential contractors submitting tenders have made sufficient provision for the health and safety measures during the construction process;

(iii) ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;

(iv) ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Disease Act, 1993;

(v) appoint each contractor in writing for the part of the project on the construction site;

(vi) take reasonable steps to ensure that each contractors health and safety plan contemplated in subregulation (2)(a) is implemented and maintained on the construction site;

(vii) ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;

(viii) stop any contractor from executing construction work which is not in accordance with the clients health and safety specifications and the principal contractors health and safety plan for the site or which poses a threat to the health and safety of persons;

(ix) where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute work safely; and

(x) discuss and negotiate with the contents of the health and safety plan contemplated in subregulation (2)(a), and must thereafter finally approve that plan for implementation;

(d) ensure that a copy of his or her health and safety plan contemplated in paragraph (a), as well as the contractors health and safety plan contemplated in subregulation (2)(a), is available on request to an employee, an inspector, a contractor, the client or the client's agent;

(e) hand over a consolidated health and safety file to the client upon completion of the construction work and must, in addition to the documentation referred to in subregulation (2)(b), include a record of all drawings, designs, materials used and other similar information concerning the completed structure;

(f) in addition to the documentation required in the health and safety file in terms of paragraph (c)(v) and subregulation (2)(b), include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done; and

(g) ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of annexure 3.

SI 04 THE PRINCIPAL CONTRACTOR'S SPECIFIC DUTIES

The Principal Contractor's specific duties in terms of this Health and Safety Specification are specified in the Construction Regulation as published under Government Notice R. 85 of 07 February 2014. (Hereinafter referred to as "Construction Regulation, 2014").

The Principal Contractor is specifically referred to the following sub-regulations of the Construction Regulation, 2014:

Subject	Applicable sub-regulation of the Construction Regulation, 2014.
Definitions	1
Scope of application	2
Application of construction work permit	3
Notification of construction work	4
Duties of principal contractor and contractor	7
Management and supervision of construction work	8
Risk assessment for construction work	9
Approved inspection authorities	32
Offences and penalties	33
Withdrawal of regulations	34
Short life	35

The Principal Contractor will acquaint himself with these duties and will make provision in his Contract price for the implementation and supervision of these duties.

SI 05 THE PRINCIPAL CONTRACTOR'S SPECIFIC DUTIES WITH REGARD TO HAZARDOUS WORK OR ACTIVITIES

The following hazardous work or activities were identified in terms of the Construction Regulation, 2014, and it is the duty of the Principal Contractor to ensure that the said work and activities are performed or carried out in terms of the relevant sub regulations of the Construction Regulation, 2014 and other applicable Regulations.

SI 06 PERFORMANCE MEASUREMENT

The Contractors compliance to the Occupational Health and Safety Act shall be measured against pre-set parameters relating to compliance to the Act.

SI 06.01 INSPECTIONS BY THE APPOINTED OHSA OFFICER

The OHSA Officer shall inspect the construction site at any time during the construction and repair work period. The Officer shall complete a score card consisting of the following parameters to ensure that the Principal Contractor provide and maintain as far as reasonable a working environment that is safe and without risk to the health of his employees and other persons:

- Safety Management
- Appointments
- Registers
- Facilities
- Incident Management
- Signs
- Contractors (Sub-Contractors)
- Activity / Conditions
- Personal Protective Equipment
- Electrical
- Housekeeping
- Site Establishment
- Records

SI 06.02 EVALUATION SCORE CARD

The OHSA Officer shall inspect each of the above indicated compliance criteria relating to construction and repair work for each type of installation.

The Officer will use a score card to measure compliance under the 13 Sections culminating in a total of 82 possible inspection items, depending on construction activities being executed.

The Officer will record his inspection findings directly onto the Score Card. Items that are not applicable to the site or construction work will not be relevant on the score card and each will have a maximum score of 100%. The Contractor shall always have to comply 100% to each section in order to receive payment for the point associated with that particular section.

SI 06.03 PERFORMANCE SCORE CARD

The thirteen performance indicators shall be recorded on the Performance Score Card and will be used to measure the Contractors remuneration for compliance to the Occupational Health and Safety Act.

The Contractor shall aim to perform satisfactory on all 13 indicators. Compliance shall either be satisfactory (full compliance) or unsatisfactory(less than 100% per indicator) and the Contractor shall score one (1) or zero (0) respectively per indicator.

A copy of the OHSA Evaluation Score Card and Performance Score Card is included in this specification.

SI 07 MEASUREMENT AND PAYMENT

SI. 01 **COMPLIANCE TO OHSA REQUIREMENTS AND CONSTRUCTION REGULATIONS 2014** .....Points

The unit of measurement shall be a point. Each month shall represent a maximum of thirteen points and a minimum of zero points depending on the compliance to the OHSA.

Thirteen points per month shall mean full compensation for OHSA compliance for work.

DEPARTMENT OF PUBLIC WORKS OHSA
PERFORMANCE SCORE CARD

CONTRACT NUMBER: WCS _____

CONTRACT:

CONTRACTOR:

ENGINEER:

INSTALLATION:

MONTH: 0 0 OF 36

OHSA Performance Indicators

1. ITEMS	0	1
1.1 SAFETY MANAGEMENT		
1.2 APPOINTMENTS		
1.3 REGISTERS		
1.4 FACILITIES		
1.5 INCIDENT MANAGEMENT		
1.6 SIGNS		
1.7 CONTRACTORS (SUB CONTRACTORS)		
1.8 ACTIVITY / CONDITIONS		
1.9 PERSONAL PROTECTIVE EQUIPMENT		
1.10 ELECTRICAL		
1.11 HOUSEKEEPING		
1.12 SITE ESTABLISHMENT		
1.13 RECORDS		
TOTAL:		

Engineer's Representative Signature Date

Construction, Repair and Maintenance							
ADDITIONAL SPECIFICATION. SI OCCUPATIONAL HEALTH SAFETY EVALUATION SCORE CARD							
ITEM NO	**DESCRIPTION ITEM**	**POSSIBLE POINTS**	**POINTS AWARDED**	**NO**	**ITEM**	**ACTION POSSIBLE POINTS**	**POINTS AWARDED**
1	**SAFETY MANAGEMENT**			**7**	**CONTRACTORS (SUB CONTRACTORS)**		
1.1	Client SHE (SI) Specifications available on site?	1		7.1	Updated list of Sub Contractors available?	1	
1.2	Principal Contractors SHE Plan available?	1		7.2	Mandatory Agreements with all Sub Contractors on file?	1	
1.3	Adequate Risk Assessments available?	1		7.3	Safety File complete (appointments, risk assessments, safe work procedures, registers)?	1	
1.4	Safe Work Procedures available?	1		7.4	Sub Contractor's First Aider on site or alternatively	1	
1.5	Safe Work Procedures approved by Engineer?	1			First Aid Agreement in place with Contractor?		
1.6	Fall Protection Plan available?	1					
1.7	Notification of Construction Work available?	1					
2	**APPOINTMENTS**						
2.1	Contractor to confirm if there are any new appointments to be minuted	1		**8**	**ACTIVITY / CONDITIONS**		
2.2	Are all the appointments recorded and available in the Health and Safety File ?	1		8.1	Correct use of Scaffolding?	1	
3	**REGISTERS**			8.2	Correct use of Support Work?	1	
3.1	Fire Extinguisher (stores, site office etc.)	1		8.3	Workers working safely at Elevated Positions?	1	
3.2	Ladders	1		8.4	Safe Operations?	1	
3.3	Scaffolding	1		8.5	Barricading?	1	
3.4	Excavations	1		8.6	Roof work: Harnesses & Lifelines?	1	
3.5	Form / Support Work	1		8.7	Excavation: Shoring & Batter?	1	
3.6	Portable Electrical Tools	1		8.8	Manholes: Demarcated?	1	
3.7	Hand tool Inspection	1		8.9	Ladders Conditions?	1	
3.8	Personal Protective Equipment & Clothing (PPE & C)	1		8.10	Construction Vehicle Condition?	1	
3.9	Explosive Powered Tools	1		8.11	Haz. Chem. Substances Applications?	1	
3.10	Crane	1		8.12	Hand tools properly used and in good condition?	1	
3.11	Lifting Machines	1		**9**	**PERSONAL PROTECTIVE EQUIPMENT**		
3.12	Lifting Tackle	1		9.1	Correctly issued (documented in file)?	1	
3.13	Construction Vehicles	1		9.2	Used correctly?	1	
3.14	Material/ Man Hoist	1		**10**	**ELECTRICAL**		
3.15	Hazardous Chemical Register	1		10.1	DB's & COC's?	1	
4	**FACILITIES**			10.2	Good Plugs / Earth Wire?	1	
4.1	Hygiene Inspection performed?	1		10.3	Electrical Leads / Condition?	1	

4.2	Toilets adequate and clean for workers?	1	
4.3	Change Area available?	1	
4.4	Eating Area available for workers?	1	
4.5	Washing Area available for workers?	1	
5	**INCIDENT MANAGEMENT**		
5.1	First Aid Box adequate and available?	1	
5.2	First Aider on site & valid First Aid Certificate in place?	1	
5.3	Any incidents to report; (Annexure 1 report; recur/investigation; record to FEM)?	1	
6	**SIGNS**		
6.1	"No Unauthorized Entry" Signs?	1	
6.2	"Danger Construction Work" signs?	1	
6.3	"Danger Lifting Operations' sign?	1	
6.4	"Hard Hats" sign?	1	
6.5	"Dust Mask" sign?	1	
6.6	"Ear Protection" sign?	1	
6.7	"Eye Protection" sign?	1	
6.8	"Safety Harness' sign?	1	
6.9	"No Smoking" sign?	1	
6.10	Scaffold use: "Safe" or "Unsafe" signs?	1	
6.11	"Emergency Assembly Point" sign?	1	

10.4	Portable Electrical Tools?	1	
11	**HOUSEKEEPING**		
11.1	Good Stacking & storage?	1	
11.2	Cement spillage control?	1	
11.3	Dust control?	1	
11.4	Placing of Sand / Stone / Bricks/ materials?	1	
12	**SITE ESTABLISHMENT**		
12.1	Office	1	
12.2	Stores	1	
12.3	Fencing / Hoarding	1	
12.4	Access Control	1	
13	**RECORDS**		
13.1	OHS Act; OHS spec; Construction Regulations	1	
13.2	SANS 10085 (Scaffolding)	1	
13.3	Safety Rep. Inspections	1	
13.4	Safety Meetings (Toolbox Talks and/ or Safety Committee)	1	
13.5	Employees Induction	1	
13.6	Visitors Inductions	1	
13.7	Job Assessments	1	
13.8	Medical Certificates	1	
13.9	Training Certificates (*Crane, Lifting Machines,* Vehicles, Scaffold, Safety Rep., TLB, Water Cart, Grader, Excavator, Roller, Front Loader, Mobile Crane, Bob-Cat, Bomag, Wacker and Tipper Trucks)	1	

TOTAL POINTS TO BE AWARDED	**82**
TOTAL POINTS AWARDED	**0**
PERCENTAGE (%)	**0.00%**

The Principal Contractor's Score Achieved is:	**0.00%**

Compliance with Construction Regulations 2003 is SATISFACTORY / UNSATISFACTORY (delete which is N/A)

ADDITIONAL SPECIFICATION

SJ COVID- 19 OCCUPATIONAL HEALTH AND SAFETY GUIDELINES FOR MANAGEMENT OF RISK ON CONSTRUCTION SITES

CONTENTS

SJ 01 SCOPE
SJ 02 SPECIFICATIONS, ACTS AND REGULATIONS
SJ 03 GENERAL REQUIREMENTS
SJ 04 DEGREE OF RISK PER SITE TYPE
SJ 05 RISK MITIGATION PLAN
SJ 06 MEASUREMENT AND PAYMENT

SJ 01 SCOPE

This specification covers guidelines and requirements to reduce the risk of a COVID-19 outbreak in the workplace and the possible impact on workers and the public.

SJ 02 SPECIFICATIONS, ACTS AND REGULATIONS

SJ 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to the date of tender, of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

CODE	DESCRIPTION
SH	HIV/AIDS Requirements
SI	OHS Act: Health and Safety
SANS 1200	Standard Specifications. A. General.

SJ 02.02 ACTS AND REGULATIONS

All regulations and statutory requirements as laid down in the latest edition of the following Acts and Regulations shall be adhered to:

ACT	DESCRIPTION
Act No. 85 of 1993	Occupational Health and Safety Act
	Construction Regulations, 2014
	Hazardous Biological Agents Regulation, 2000
Act No. 57 of 2002	Disaster Management Act
	COVID-19 Occupational Health and Safety Measures in Workplaces Covid-19 (C19 OHS), 2020
	Section 27(2) Regulations, 29 April 2020

SJ 02.03 **MANUFACTURERS' SPECIFICATIONS, CODES OF PRACTICE AND INSTALLATION INSTRUCTIONS**

All equipment and materials shall be installed, serviced and repaired strictly in accordance with the manufacturers' specifications, instructions and codes of practice.

SJ 02.04 **MUNICIPAL REGULATIONS, LAWS AND BY-LAWS**

All municipal regulations, laws, by-laws and special requirements of the Local Authority shall be adhered to unless otherwise specified.

SJ 03 **GENERAL REQUIREMENTS**

SJ 03.01 **IMPLEMENTING WORKPLACE CONTROLS**

The legislation governing workplaces in relation to COVID-19 is the Occupational Health and Safety Act (Act 85 of 1993) as amended, in conjunction with the Hazardous Biological Agents Regulation.

A COVID-19 specific risk assessment together with a written policy concerning the health and safety of all employees, clients, suppliers and sub-contractors who are associated with the Contractor, shall be drawn up and communicated to all the relevant parties, along with mitigation measures which need to be monitored and adjusted should the need arise.

SJ 03.01.01 **WORKPLACE CONTROLS**

- All offices (including site offices) will be sanitised before opening for business each day.
- Place posters that encourage staying home when sick, cough and sneeze-etiquette, and hand hygiene at the entrances of offices and sites.
- On-site induction with special emphasis on COVID-19 will be done with all employees upon return to work.
- Provide tissues and waste bins lined with a plastic bag so that they can be emptied without contact with the contents.
- Instruct employees to clean their hands frequently using soap and water, for at least 20 seconds or with an alcohol-based hand sanitiser that contains at least 70% alcohol.
- Continue routine environmental cleaning, which includes tools and equipment.
- Increase ventilation in offices by natural or mechanical means.
- Provide soap and water and/or alcohol-based hand sanitiser (at least 70%) in the workplace in multiple locations and in common areas to encourage hand hygiene.
- Practice social distancing (2m) as far as possible (no handshakes, hugs, kissing, horseplay or touching each other). Keep distance from each other while working on site. Supervisors will monitor this throughout the day.
- While queuing at the gate to enter the site, employees must stand in a line, with at least 2m between them.

- Desks for employees working in the office (site office) will be spaced at least 1.5m apart or where this is not possible, protective barriers will be erected between desks.
- It is compulsory to wear face masks at all times. Each employee will be issued with two cloth face masks to wear at work and while commuting, with appropriate training on the use of these masks. Arrangements will be made for the washing, drying and ironing of cloth masks.
- Temperature testing will be done on all employees every morning upon arrival to site, and also randomly during the day. All readings will be recorded, monitored and sent to the SHEQ department. The testing will be conducted by the site safety officer. On sites where a full-time safety officer is not available, the responsibility will fall onto the supervisor.
- During the temperature screening, employees will be screened for any additional symptoms such as body aches, loss of smell or taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness. The results will be recorded in the Social Distancing Control Sheet and send to the SHEQ department. If an employee displays any of the symptoms, he will not be permitted to enter the site/offices.
- In addition to posters, brief employees and sub-contractors that anyone with a mild cough or low-grade fever (37.3 or more) needs to stay at home and take sick leave.
- Any employee who develops flu-like symptoms (i.e. cough, shortness of breath, fever) or any of the additional symptoms should inform his supervisor immediately.
- Where practical, the minimum number of employees will be allowed on site, and rotation, staggered working hours and shift work may be implemented. Promote working from home for employees who are able to do so.
- All visitors to site will undergo induction and temperature screening and must be in possession of the appropriate PPE (i.e. face mask) prior to being allowed access to site. No access will be granted to visitors not complying.
- All visitors will be required to sanitize their hands before entering the site as well as when they leave.
- Sub-contractors shall ensure that all of their employees are issued with face masks and any other necessary PPE, and that hand sanitiser and soap is available for their employees.
- Temperature testing will be done by the sub-contractor and records kept. Failure to do so will result in the sub-contractor's employee/s being put off-site until compliant.
- A copy of the Essential Service Permit must be available on site at all times. All sub-contractors to provide a copy of their Permit prior to being granted permission to work.
- All employees are obliged to comply with measures introduced in the workplace.

SJ 03.01.02 **<u>WHAT TO DO WHEN AN EMPLOYEE ON SITE BECOMES ILL WITH COVID-19</u>**

If someone becomes ill in the workplace and there is reason to suspect they may have contracted or come into contact with someone who has contracted the COVID-19 virus, the person must be isolated immediately, provided with a **FFP1 surgical mask**, and transport arranged for the employee to go home to be self-isolated or for medical examination. Ensure testing is done at an identified testing site.

The Department of Health and Department of Labour will be informed of any employees testing positive for COVID-19, whereafter an investigation will be conducted to establish the cause, including any control failures. The risk assessment will be reviewed to ensure necessary controls and PPE is in place.The risk of transmission will be assessed, the employees working area disinfected.

If an employee is confirmed to have COVID-19, his/her fellow employees will be informed of their possible exposure to COVID-19 in the workplace and referred for screening, but confidentiality must be maintained at all times, and no discrimination must be shown toward an employee who tested positive for COVID-19.

If evidence exist that the employee contracted COVID-19 as a result of Occupation Exposure, a Claim for Compensation will be lodged in terms of the Compensation of Occupational Injuries and Diseases Act 1993 (Act No. 130 of 1993) in accordance with Notice 193 published on 3 March 2020.

Once an employee was positively diagnosed with COVID-19 and isolated in accordance with the Department of Health Guidelines, the employee may only return to work after he has undergone a medical evaluation confirming the employee has tested negative for COVID-19. The employee will be required to wear a face mask, maintain social distancing and adhere to cough and sneeze-etiquette. The employee will also be monitored for symptoms upon his/her return to work.

SJ 03.01.03 TRANSPORT

- Where transport is provided, occupancy of the vehicle should be reduced in line with social distancing practice.
- All passengers must wear face masks or respirators.
- All passengers to sanitise their hands before getting into the transport, as well as when disembarking.
- Transport vehicles should be sanitised before and after each trip.
- Employees making use of public transport to ensure they wear face masks and sanitise their hands regularly (before getting into the transport and when disembarking) and attempt not to touch any surfaces unless absolutely necessary.

SJ 03.01.04 MEETINGS

Wherever possible, meetings are to be held via tele or video conference in order to maintain social distancing and prevent the possible spread of COVID-19.

Toolbox talk meetings, inductions and briefing sessions should be done in open areas with social distancing in place.

Progress meetings and technical meetings will be held in the site meeting building specified as 14 meter x 5 meter = 70m² to accommodate 12 persons. The conference table will accommodate 12 attendees, 2 meters apart. The room shall be well ventilated at a maximum temperature of 22°C.

SJ 03.01.05 TRACKING RECORD LOG

Example:

Tracking Record log (Employees/Visitors)								
DATE	NAME	ID NUMBER	AGE	TEMPERATURE IN	SIGNATURE	TEMPERATURE OUT	SIGNATURE	SECURITY CONTROL SIGNATURE

SJ 03.01.05 TRAINING ATTENDANCE REGISTER

Example:

Training Attendance Register			
		Session No	
Date of training			
Time training started		Time training ended	
Duration of training			
Instructor name and signature			
Training provided (Tick applicable box)			
Read only	Class Room	Practical Demonstration	Communicated Changes

Employee number	Employee name	Employee signature *(Signature indicates acknowledgement that training was understood)*	Type of training received

SJ 04 DEGREE OF RISK PER SITE TYPE

BUILDING AND PROJECT TYPE	SITE SET-UP AND STAFF WELFARE	CONSTRUCTION STAGE
Lower Risk	For most, but not all project construction stage risk may be as follows:	For most but not all sites, set-up risk may be as follows:
Industrial, Logistical, Roads and Bridge Construction	**Lower Risk**	**Lower Risk**
Medium Risk	• Excavation and groundworks • Foundations and Piling	• Large Sites
Residential Accommodation	**Medium Risk**	**Medium Risk**
High Risk		• Site and management offices
		High Risk
	High Risk	
	• Cladding and Glazing • M+E and Lifts • Interior First Fix • Interior Second Fix	
		GUIDLINE **For each construction site there will be different levels of risk and it will be critical to evaluate the specific risk of each individual project.**

SJ 05 RISK MITIGATION PLAN

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Demographics of Labour: • Inadequate procedures in place to identify potential infected employees and workers • Manage the exposure to COVID-19 on the project, including visitors and suppliers		**CONTRACTOR**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Origin of labour and transportation Need to minimize the risk of exposure to virus whilst in transport	• **On site transportation**: Where on site transportation is done, a policy needs to be available for how such transportation will be made safe and limit any opportunity for cross infection. If possible, the Principal Contractor should provide their own transportation of work force. (Where not possible, use of public transport can be considered to comply to transport limitations) • **Parking areas**: Private and public vehicles are required to park outside of the construction site • Support staff for professional service providers are to work from office location or from home • **Education and information**: Information boards are required at entrance of sites and within Site Offices with information on the virus and precautions to be taken during working hours and traveling. • **Social Distancing**: o **On site**: As far as possible, work activities must be so arranged that social distance is kept to a minimum of 2 metre. o **Site office**: seating arrangements must be of such that social distancing for roll players is kept to a minimum of 1 metre, ie; '**ONE CHAIR, SKIP CHAIR, ONE CHAIR, SKIP CHAIR**'. o Roll players must be limited to Professional Team and principal contractor. o Facial Masks must be worn at all times by all roll players. o Contractor work force when on site and transportation to and from site, where hand gloves can be used, they should be worn at all times to minimize touching of possible contaminated surfaces and injury.	**CONTRACTOR AND PROFESSIONAL TEAM**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Public transportation across boarders/towns/cities Where a return to work will necessitate travel between Provinces and cities for employees and workers to return to the project, The Principal Contractor and Sub-Contractors are to have in place procedures for or provision of transport for the return of workers to minimize the risk of exposure to the virus whilst in transit.	**The contractor to source/recommend a transport service provider that complies with all travel restrictions and requirements as gazetted by the government, inter alia:** • Maximum occupancy of vehicles to allow for social distancing • Vehicles sanitized before passengers board • Passengers provided with Face Masks and hand sanitizers provided within vehicles for passengers sanitization before boarding and after returning from vehicles for comfort breaks • Regular testing of body temperature • Adequate number of vehicles to be provided to comply with the maximum occupancy • Principal Contractor to put in place procedures for sanitization of personal belongings and luggage of work force on arrival at final destination • Permits to be provided per vehicle and per passenger from Authorising Authority	**CONTRACTOR**
Social Distancing: Construction site and facilities not set up in such a way that it will be possible as far as is practicable to maintain the required social distancing of 2 metres between persons when at work **Risk:** Manual labour for physical tasks and tasks that will not allow for social distancing;	**<u>Tasks that require more than 1 person to complete</u>:** • Providing adequate supplies of suitable PPE such as face masks, task specific gloves, safety glasses, disposable/additional coveralls; • PPE used during multi-person activities to be exchanged immediately after the task is completed; • Sealed bins to be provided for disposable PPE such as masks, disposable coveralls, disposable gloves, etc.; • Sealable bags provided to each person for keeping PPE requiring laundering, such as gloves and coveralls, and • Sanitizing/washing facilities provided for immediate sanitizing of hard hats, safety glasses, shoes, safety harnesses etc, on completion of multi-person tasks	**CONTRACTOR**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Site access by non-employees/security access Inadequate access control measures in places	• Stop all non-essential visitors • All employees and non-employees to be screened with non-contact thermometers (Thermal Thermometers); • Body temperature checks with thermometer upon employee's arrival and departure; • Introduce staggered start and finish times to reduce congestion and contact at all times; • Take body temperatures of anybody stepping on or off site; • Monitor site access points to enable social distancing; • Number of access points to be reduced to enable controlled monitoring; • Ensure disinfectants are in place for disinfecting of shoes on entering/leaving the site; • Provide hand sanitizer for all entering the site to sanitize hands; • Allow social distancing of 2 metres in ques for all entering the site; • Regular cleaning of common contact surfaces areas, e.g.; desks, telephones handsets, site office door handles, chairs, etc.; • Drivers of suppliers of materials and goods and services must remain with their vehicles if load will allow it, if not, drivers are to wash hands before unloading goods and materials	**CONTRACTOR**
Alcohol and Drug Testing Lack of safe testing procedures in place for alcohol and drug testing	• Alcohol testing may only be done using single use test units, and must be disposed of in the appropriate contaminated waste bins provided on site; • Drug testing will only be done by an occupational health facility either using urine or blood sampling; • A protocol will be drawn up by the Principal Contractor to manage this with the occupational health service being used.	**CONTRACTOR**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Medical Surveillance No methodology in place as part of the normal requirements for pre-placement, periodic and exit medicals that includes factors related to COVID-19	• The normal requirements of pre-placement, periodic and exit medicals will remain, with the Occupational health service providing a methodology of how they will be including factors relating to Covid-19. No lung functions or peak flows will be done until deemed safe to do so by the South African Thoracic Society. • It is preferable that occupational health service providers use a cloud-based record keeping service to ensure easy tracking and tracing. Free apps such as Square 1 is such an example. • Any person who contracts the virus may need to be reported to the Compensation Commissioner as an occupational disease where their work is to monitor and in contact with others. Such details are provided in the Compensation for Injuries and Diseases Act (COIDA). • Isolation of workers who have a temperature or any symptoms, and removal to the closest facility for testing and treatment, through the numbers provided. The PC is to ensure their policy on this includes such information. • Workers will be required to complete COVID-19 questionnaires prior to returning to site. Any worker with any symptoms is not to return to work, or notify the PC of same.	**CONTRACTOR**
Ablution Facilities on Site Unhygienic ablution facilities leading to poor hygiene	• Restrict the number of people using toilet facilities at any one time. e.g. use a welfare attendant; • Hand washing facilities (soap and water, paper towel) to be available where possible, and if not, to provide hand sanitizer. Wash hands before and after using the facilities • Induction training to educate to ensure all users are hand washing correctly; • Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush handle. Flush toilets preferably 1:15 ratio unless increased cleaning regime present; • Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently. Portable toilets to be provided at a 1:10 ratio; • Provide suitable and enough rubbish bins for hand towels with regular removal and disposal be cleaned and emptied more frequently; • Introduce staggered start and finish times to reduce congestion and contact at all times; • Consider increasing the number or size of facilities available on site if possible.	**CONTRACTOR AND EMPLOYEES**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Waste Management for Covid-19 Waste Outdated waste management arrangements in place that leads to an increased risk of the spread of Covid-19	Waste management arrangements to be updated to include provision for the disposal of additional waste generated due to preventative measures implemented. All waste to be managed as hazardous waste. **a. Disposal of any gloves, masks** The contractor shall dispose of all used gloves and masks as hazardous waste and provide sealable bags and containers for the safe disposal of this waste. **b. Paper towels** The contractor shall provide adequate supplies of paper towels on site. At points where these towels are provided lined waste bins to be placed in order to collect all used towels and then to be disposed of in hazardous waste. **c. Disinfectant solution** The contractor to provide adequate supplies of disinfectant on site where the use of water and soap for cleaning is not practical. If disinfectant dispensers are not refilled it should be disposed with other hazardous waste. **d. Wastewater** Wastewater at washing points, toilets, and bathrooms to be contained in a drainage system that prevent surface spills. If wastewater is contained in waste buckets it must be sealed when removed and disinfected after it is cleaned.	**CONTRACTOR**
Site Meetings Not limiting the number of employees at all activities to the minimum required to do the work in a safe manner.	Only necessary meeting participants should attend. • Attendees should be two metres apart from each other. • Rooms should be well ventilated / windows opened to allow fresh air circulation. • Consider holding meetings in open areas where possible. • Technological alternatives to be exploited for meeting • Attendance if possible (Zoom, Skype, MS Teams). • Training and awareness to address procedures and the importance of social distancing. • Toolbox talks to be conducted outdoors when possible in order for persons to maintain social distancing. Where inclement weather does not allow for this, toolbox talks to be conducted with smaller groupings of workers in a sheltered area large enough to maintain social distancing.	**CONTRACTOR**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Signage Conflicting messages/notices displayed on the site in contravention with current requirements to respond to Covid-19	The Principal Contractor is to review all current signs and notices displayed on site. The PC is to avoid conflicting messages/notices that have been in place prior to lockdown and review accordingly. **a. Access rules** The contractor shall install additional signage with site rules specific to the prevention of spreading the COVID-19 virus at the access control points of the site. **b. Notices/Posters with protocols** Notices and posters shall be placed and installed to raise awareness and regarding protocols to be followed on site. These notices and posters shall be placed conspicuously at various points on the site including the following places: • Entrance • Site notice board • Site Office • Eating areas • Next to toilets and bathrooms • Hand washing stations • Storerooms	**CONTRACTOR**
Emergency Planning Emergency plan not completed and undated in line with current Regulations of the National Disaster Management Act	An updated emergency plan is to be completed that is in line with the current Regulations of the National Disaster Management Act. **a. First aid** Extra gloves, and disinfectants are to be available, first aiders are to be issued with at least FFP2 masks should they be required to respond **b. Evacuation plans** Evacuation plans should consider social distancing. **c. Isolation of potentially infected workers** The emergency plan is to consider how anyone who arrives on site and displays any of the symptoms, or has a raised temperature.	**CONTRACTOR**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Welfare facilities Lack of procedures and arrangements for the provision of welfare facilities to prevent the spread of Covid-19 between employees on site	The Principal Contractor shall adapt arrangements regarding the provision of welfare facilities to be in line with Government guidelines and requirements. **a. Clean, storage for food and personal belongings** The Principal Contractor to provide lockable storage for all employees on site, which shall be disinfected daily. Training and awareness to address procedures and the importance of good hygiene practice. **b. No personal belongings to be kept on site** Apart from extra clean personal clothing no other personal belongings allowed on site accept if kept in locker provided by the Principal Contractor. **c. No communal drinking facilities (shared cups etc.)** The Principal Contractor to provide adequate supplies of bottled water to all employees on site. Empty bottles to be disposed of as normal waste. Training and awareness to address procedures and the importance of good hygiene practice. **d. Eating areas** The Principal Contractor is to limit the number of employees at all activities to the minimum. Stagger lunchbreaks and resting periods for work teams. Training and awareness to address procedures and the importance of good hygiene practice and social distancing. • Workers are required to stay on site once they have entered it and not use local shops. • Dedicated eating areas should be identified on site to reduce food waste and contamination. Where catering is provided on site, it should provide pre-prepared and wrapped food only; • Payments should be taken by contactless card wherever possible; • Crockery, eating utensils, cups etc. should be disposable if supplied; • Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced; • Tables should be cleaned and disinfected between each use; • All rubbish should be put straight in the bin and not left for someone else to clear up; • All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, vending machines and payment devices.	**CONTRACTOR AND EMPLOYEES**

RISK DESCRIPTION	MITIGATION PLAN/ACTION	RESPONSIBILITY
Consequence Management Inadequate processes and procedures in place for consequence management	• When non-compliance activities are noted, that activity will be stopped. Should the remedial actions not take place the site will be shut down till the corrective actions have been implemented. • Employees that do not work according to the SSHSS and SSHSP must be disciplined according to the company's disciplinary codes and practices. • Supervisory employees on site must ensure compliance, and when non conformances are noted disciplinary actions should also be followed. • Principal Contractor's should note that they could be fined and even according to the Disaster Management Act, arrested.	**CONTRACTOR**

SJ 06 MEASUREMENT AND PAYMENT

SJ 06.01 APPOINTMENT OF A COVID-19 AWARENESS CHAMPION .....Unit: Month

The unit of measurement shall be for the number of months the Awareness Champion is employed.

The tender rate shall include the training of the person on basic COVID-19 information and regulations and to ensure that the person has the necessary skills to handle questions and apply correct procedures regarding the COVID-19 regulations.

SJ 06.02 ARRANGING AWARENESS WORKSHOP ..... Unit: Number

The unit of measurement shall be for the number of events arranged.

The tender rate shall include the cost of the service provider, suitable venue and all tuition material and performing assessment procedures.

SJ 06.03 PROVIDING PERSONAL PROTECTIVE EQUIPMENT (PPE)..... Unit: Month

The unit of measurement shall be for the number of months the Contractor must provide PPE to all workers on site.

The tender rate shall include for face masks, gloves, tissues, towels etc. for all workers for the full construction period of 24 months.

SJ 06.04 PROVIDING SANITIZING/WASHING FACILITIES ..... Unit: Month

The unit of measurement shall be for the number of months the Contractor must provide sanitizing and washing facilities on site for the total 24 month contract period.

The tender rate shall include for providing sanitizing and washing facilities for all construction workers at all the different construction sites for all PPE equipment as specified.

SJ 06.05 **ADDITIONAL ABLUTION FACILITIES**.....Unit: Number

The unit of measurement shall be for the number of facilities on the different construction sites.

The tender rate shall include for the construction of sanitizing and washing facilities consisting of a concrete floor area min 3 x 3 meter with 3 hand wash basins and IBR roof covering, including 5000ℓ water tank on stand, as well as soak away for grey water. The facilities to be maintained for the duration of construction at each site.

SJ 06.06 **SITE MEETING VENUE**.....Unit: Sum

The unit of measurement shall be for the additional cost relating to the site meeting venue building as specified in SANS 1200 and PS 5.4.

The additional rate shall include for the additional m² size of the building and furniture which will consist of a separate chair and an 800mm x 600mm table desk for each of the 12 places.

SJ 06.07 **PROVIDE NOTICES AND POSTERS**.....Unit: Month

The unit of measurement shall be for the posters and information notices and booklets to raise awareness and to share information about COVID-19.

The posters and notices must be maintained at places as indicated in Item 1.10.7 at all the different construction sites for the duration of construction.

SJ 06.08 **PROVIDE SCREENING FACILITY**.....Unit: Month

The unit of measurement shall be for the provision of a screening facility to accommodate workers daily at the start of every working day, including provision of infrared forehead thermometers and the maintenance of the equipment for the duration of the 24 month contract period.

ADDITIONAL SPECIFICATION

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

CONTENTS

SN 01	SCOPE
SN 02	TERMINOLOGY AND DEFINITIONS
SN 03	APPLICABLE LABOUR LAWS
SN 04	EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR INTENSIVE WORKS
SN 05	TRAINING OF EPWP WORKERS
SN 06	CONTRACTUAL OBLIGATIONS IN RELATION TO LABOUR
SN 07	SETTING OF RATE OF PAY
SN 08	GENERIC LABOUR INTENSIVE SPECIFICATION

SN 01 SCOPE

This project is part of the Expanded Public Works Programme and aims to alleviate and reduce unemployment. EPWP will achieve this aim through the provision of work opportunities as part of the project. EPWP workers will be recruited and trained in skills relevant to the work to be done on this project. These workers will be employed by the Contractor as part of this project so that they can gain work experience on these projects. The Contractor will be required to manage, supervise and report on the EPWP workers, monthly, for a period of 36 months. Furthermore the Contractor will be required to supervise these EPWP workers to ensure that the work they perform is of the required standard.

Labour-intensive infrastructure projects under the EPWP include:

- using labour intensive construction methods to provide employment opportunities to local unemployed people;
- providing training or skills development to those locally employed workers;
- building cost-effective and quality assets.

The employment of locally employed temporary workers on all EPWP labour-intensive infrastructure projects must be in accordance with the Code of Good Practice for Employment and Conditions for Expanded Public Works Programmes issued in terms of the Basic Conditions of Employment Act, 1997 (Act N°75 of 1997)..

SN 02 TERMINOLOGY AND DEFINITIONS

SN 02.01 TERMINOLOGY

a)	BY HAND	refers to the use of tools which are manually operated and powered.
b)	EPWP	Expanded Public Works Programme, a National Programme of the government of South Africa, approved by Cabinet.
c)	DOL	Department of Labour. Labour-intensive refers to methods of construction involving a mix of machines and labour, where labour,

utilising hand tools and light plant and equipment, is preferred to the use of heavy machines, where technically and economically feasible.(Note: The normal emphasis on the cost-effectiveness and quality of the asset must be retained.)

d) Public body — refers to a department, trading entity, constitutional institution, municipality, public entity or municipal entity

e) Scope of work — refers to a specification and description of the services or construction works which are to be provided and any other requirements and constraints relating to the manner in which the contract is to be performed

SN 02.02 DEFINITIONS

(a) "employer" — means the contractor or any party employing the worker under the EPWP Programme.

(b) "client" — means the Department of Public Works.

(c) "worker" — means any person working or training in an elementary occupation on an EPWP.

SN 03 APPLICABLE LABOUR LAWS

In line with the Expanded Public Works Programme (EPWP) policies, the Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes read in conjunction with a Ministerial Determination for Expanded Works Programmes issued by the Minister of Labour in terms of Section 50(1) of the Basic Conditions of Employment Act of 1997 of which extracts have been reproduced below in clauses SN 04, shall apply to works described in the scope of work and which are undertaken by unskilled or semi-skilled workers.

SN 04 EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR INTENSIVE WORKS

SN 04.01 REQUIREMENTS FOR THE SOURCING AND ENGAGEMENT OF LABOUR

The beneficiaries of the programmes should be locally-based (as close to the project site as possible) individuals prepared to work on the specific EPWP.

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

Workers from other areas may be employed if they have skills that are required for a project and there are not enough persons in the local communities who have those skills or who could undergo appropriate skills training. However, workers from other communities should not exceed 20% of all persons working on a programme. A proper skills audit should be conducted, where possible, in an area where an EPWP is in operation.

Programmes should set participation targets for employment with respect to women, youth, and people with disabilities.

The proposed targets are:

- 55% women;
- 40% youth from 16 to 35 years of age; and
- 2% people with disabilities.

EPWPs should seek to achieve these targets in all occupational categories. Persons under sixteen years of age may not be employed on EPWP.

SN 04.02 SPECIFIC PROVISIONS PERTAINING TO SANS 1914-5

Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

Contract participation goals

- The specified contract participation goal for the contract is stated in the Scope of Works. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

- The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

- Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall been entered into with targeted labour.

The definition for net amount shall be amended as follows:

- Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.

SN 05 TRAINING OF EPWP WORKERS

The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

Three types of training are applicable, namely

- Life skills;
- On the job training;
- First Aid training;
- Technical Skills training.

Training will be implemented by training instructors accredited by DOL and/or CETA:

- EPWP workers shall be employed on the projects for a minimum period of 12 months.

- EPWP workers shall be deployed on projects in the vicinity of their homes. The same arrangements as for other workers regarding accommodation, subsistence and travel shall be applicable to EPWP workers.

(a) The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

(b) The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

(c) A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works

(d) The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.

(e) The contractor shall do nothing to dissuade targeted labour from participating in the above mentioned training programmes.

(f) An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of (d) above.

(g) Proof of compliance with the requirements of (a) to (e) must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

SN 06 CONTRACTUAL OBLIGATIONS IN RELATION TO LABOUR

The EPWP workers to be employed in the programme (EPWP) shall be directly contracted to the Contractor. Over and above the construction and project management responsibilities, the contractor will be expected to perform the tasks and responsibilities as set out in this specification.

Implementation of labour intensive practices under the Expanded Public Works Programme (EPWP) is required to a value of not less than 10% of the tendered contract amount for wages paid to local labour.

SN 07 PAYMENT OF WORKERS

Employers must pay workers at least the minimum rate as stipulated in the Ministerial Determination: Expanded Public Works Programme

Workers can be paid on the basis of the number of tasks completed. These workers are referred to as "task-rated workers". Alternatively, workers can be paid on a daily rate.

There are jobs where it is not possible to pay workers on the basis of tasks performed. These workers must be paid on the basis of the amount of time they worked. They are referred to as "time-rated workers".

On the task-based system, a worker is paid for each task completed or part thereof.

If workers are informed a day before that work will not take place the next day, they should not be entitled to any payment.

Workers will be paid a training allowance in case they are required to attend agreed training programmes. This should be equal to 100% of the daily task rate for task-rate workers or 100% of the daily rate of pay for time-rated workers. All the costs of training will be covered, for example, travel, trainers, material, tuition fees.

Where a worker participates in a learnership, the relevant learnership determination must be used to determine the training allowance whilst on training.

Each worker must be given written particulars of employment and verbal explanations in an appropriate language of their rate of pay and how this is to be calculated.

Where a project is completed earlier than anticipated the worker should receive the full agreed remuneration for the stipulated period of the contract if the pay for the task was to be calculated on the basis of time. Where such work was to be performed on a task-based system, the full agreed remuneration for the task should be paid for early completion.

SN 08 GENERIC LABOUR INTENSIVE SPECIFICATION

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

SN 08.01 Scope

This specification establishes general requirements for activities which are to be executed by hand involving the following:

a) trenches having a depth of less than 1.5 metres
b) cleaning of storm water drainage
c) cleaning of roads and sidewalks
d) clearing of fence routes
e) cleaning and site keeping
d) cleaning of buildings

SN 08.02 Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

SN 08.03 Hand excavatable material

Hand excavatable material is material:

a) granular materials:

i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note:

i) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.

ii) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60°with respect to the horizontal) into the material being used.

SN 08.04 Trench excavation

All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

SN 08.05 Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

a) to 90% Proctor density;

b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than10% gravel of size less than 10mm and contains no isolated boulders, or

c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

SN 08.06 Excavation

All hand excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

SN 08.017 Clearing and grubbing

Grass and small bushes shall be cleared by hand.

SN 08.08 Shaping

All shaping shall be undertaken by hand.

SN 08.09 Loading

All loading shall be done by hand, regardless of the method of haulage.

SN 08.10 Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

SN 08.11 Offloading

All material, however transported, is to be off- loaded by hand, unless tipper-trucks are utilised for haulage

SN 08.12 Spreading

All material shall be spread by hand.

SN 08.13 Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved.

SN 08.14 Grassing

All grassing shall be undertaking by sprigging, sodding, or seeding by hand.

SN 08.15 Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

SN 08.16 Manufactured Elements

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them.

SN 08.17 Roads

The following operations may be carried out using labour intensive methods:

1. Site clearance
2. Layer work construction including loading, hauling and spreading material.

Note: All compaction should be done using conventional compaction equipment and where necessary the use of heavy machinery may be employed to loosen material for excavation by hand. Where significant use of blasting is indicated, then the Works are probably not suitable for labour intensive methods.

3. Where higher standards of roads are to be constructed then the following operations may be included:

- Macadam base course either dry, water bound or emulsion bound; foamed bitumen gravel; emulsion treated gravel; or slurry bound or composite macadams.
- Application of bitumen bound surface treatment (cold) including spreading and dragging of chips.
- Slurry treatments to existing or new road surfaces.
- In situ concrete roads
- Segmented block paved roads.
- Cast in-situ block pavements (hyson-cells);
- Road markings.

4. Fencing.
5. Erection of road signs.
6. Grass maintenance.
7. Road reserve maintenance.
8. Rubble masonry bridges, culverts and retaining walls

SN 08.18 Storm water

The following operations may be constructed using labour intensive construction methods:

1. Gabions and reno mattresses.
2. Small diameter pre-cast concrete elements (pipes and arches).
3. Grassed or lined water channels

SN 08.19 Sewers

The following operations may be constructed using labour intensive construction methods:

1. Sewer manholes either in brickwork or using specially manufactured pre-cast manhole rings (individual mass less than 320kg).
2. Sewer manhole covers and lids using specially designed pre-cast units.
3. Maturation or flocculation ponds with least dimension not exceeding 100m.

SN 08.20 Water

The following operations may be constructed using labour intensive construction methods:

1. Laying of water pipelines, fittings and house connections in all materials (including steel) where the mass of individual pipe lengths does not exceed 320kg.
2. Construction of ferro-cement reservoirs.
3. Excavation for membrane lined and floating roof reservoirs.

4. Construction of small masonry reservoirs.
5. Spring and well protection measures

SN 08.21 Haul of Material

Where the haul of any material exceeds 200m, consideration should be given to the use of local resources for transporting material. This includes the use of animal drawn vehicles and small trailer combinations utilising locally sourced tractors. All loading and off loading can be done by hand.

SN 08.22 Electricity

The following operations may be constructed using labour intensive methods:

1. Excavation of trenches for reticulation of all voltages.
2. Excavation for and erection of poles for overhead lines.
3. Installation of all electricity cables (joints and terminations by qualified persons).

SN 08.23 Bill of quantities

Labour-intensive works is highlighted in the bills of quantities for the payment items relating to labour-intensive works (LI).

SN 09 REPORTING

The Consultant shall, before certifying a contractor's payment certificate, ensure that the contractor has submitted labour information in a format and timeframe specified by the employer. If the information submitted by the contractor is inadequate the consultant shall not submit the payment certificate to the employer for payment.

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractors chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.

SN 10 MEASUREMENTS AND PAYMENT

The number of EPWP workers specified for this contract that will receive orientation and life skills development training is 15 and technical training is 15

SN 10.01 PAYMENT FOR EMPLOYMENT AND TRAINING OF EPWP WORKERS (TARGET: - 15 EPWP WORKERS)

SN 10.01.01 Orientation and Life Skills development training for EPWP workers for an average of 10 days per EPWP worker.....Unit: PC Sum

SN 10.01.02 Technical skills training for EPWP workers for an average of 20 days per EPWP worker.....Unit: PC Sum

SN 10.01.03 First Aid Level 1 training for EPWP workers for an average of 5 days per EPWP worker.....Unit: PC Sum

SN 10.01.04 Profit and attendance for administration of items 1 and 2 above..... Unit: %

SN 10.02 PAYMENT FOR TRAVELING OF EPWP WORKERS

SN 10.02.01 Travelling (based on return trip/EPWP worker) ..... Unit: worker/ day

The unit of measurement shall be the number of EPWP workers transported from the nearest local community to the work place and back on a daily basis. The tendered shall allow for the cost of each worker to be able to safely reach the work place and travel back each day and shall be measured as a number for each worker per day.

ADDITIONAL SPECIFICATION

SS SITE SPECIFIC INVENTORY

CONTENTS

SS 01	SCOPE
SS 02	SITE LOCALITY INFORMATION
SS 03	DESIGN STANDARDS AND DEFINITIONS
SS 04	SITE INVENTORY
SS 05	SCOPE DEFINITION
SS 06	ADDITIONAL SITE SPECIFIC INFORMATION

SS 01 SCOPE

This Additional Specification (**SS: Site Specific Inventory**) covers the inventory of the Boesmansnek, Ramatseliso and Ongeluksnek Land Ports of Entries included as part of the contract in order to assist the Contractor with the scope of work regarding specific maintenance and servicing requirements, development of a maintenance control plan, site maintenance administration and preventative maintenance performance.

Additional Specification SS: Site Specific Inventory, should be read in conjunction with all other technical and additional specifications applicable to this contract.

The preventative maintenance and periodical mandatory servicing work to be performed and executed shall include, but not be limited to the items listed in this specification.

SS 02 SITE LOCALITY INFORMATION

Due to the size and locations of Boesmansnek, Ramatseliso and Ongeluksnek Land Ports of Entries, the Contractor should also refer to Additional Specification SA: Maintenance and Servicing regarding the frequency of site visits relating to preventative maintenance.

SS 02.01 BOESMANSNEK LAND PORT OF ENTRY

Boesmansnek Land Port of Entry including onsite staff housing, is situated in KwaZulu-Natal Province on the southern borderline crossing into Lesotho, approximately 170 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.

The GPS coordinate is 29°50'37.72"S, 29°12'42.46"E

Figure 2.1: Boesmansnek Port of Entry: Arial Photograph

The contract at comprises of maintenance and servicing work as specified in **PG-01.1 (EC) Scope of Works.**

SS 02.02 RAMATSELISO LAND PORT OF ENTRY

Ramatseliso Land Port of Entry including onsite staff housing, is located in the province of Eastern Cape on the southern borderline coring into Lesotho, approximately 270 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.
The GPS coordinate is 30° 3'2.24"S, 28°55'59.72"E

Figure 2.2: Ramatseliso Land Port of Entry: Arial Photograph

The contract at comprises of maintenance and servicing work as specified in **PG-01.1 (EC) Scope of Works**.

SS 02.03 ONGELUKSNEK LAND PORT OF ENTRY

Ongeluksnek Land Port of Entry including onsite staff housing, is located in the Eastern Cape province, situated on the southern borderline crossing in to Lesotho, approximately 320 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.

The GPS coordinate is 30°20'35.08"S, 28°18'40.15"E

Figure 2.3: Ongeluksnek Land Port of Entry: Arial Photograph

The contract at comprises of maintenance and servicing work as specified in **PG-01.1 (EC) Scope of Works**.

SS 03 DESIGN STANDARDS AND DEFINITIONS

PW371	Department of Public Works Specification: Specification of Materials and Methods to be used
PW347	Department of Public Works Specification: Civil Engineering Manual
SANS (various)	South African Bureau of Standards: National Standards
GCC	General Conditions of Contract for works of civil engineering construction (1st edition 2004)
Pluming Fixtures	Plumbing points such as toilets, wash hand basins, showers, sinks, taps, etc.
Electrical Fixtures	Electrical points such as lights, socket outlets, light switches, isolators, etc.
Call Centre	The National RAMP Call Centre
Colours (standardised)	External plastered walls: Barley Internal plastered walls: Tawny-Mink Steelwork: White Ceilings: White Window and door frames: White Roofs: Green

SS 04 SITE INVENTORY

SS 04.01 BOESMANSNEK PORT OF ENTRY

The installations to be maintained under the maintenance and servicing contract at Boesmansnek Port of Entry shall

Civil Infrastructure:

No.	Installation	Number off	Description
		25	Buildings and structures
		668 m²	Residential Area
		701 m²	Operational Area
		110	Door Locks
		82	Windows fitted with blinds
		7	Stainless Steel Hand Dryers
		11	Stainless Steel Wall Mounted Bins and She Bins
		5	Stainless Steel Sanitizers
		8	Stainless Steel Soap Dispensers
		145	Taps and Valves
		26	WC Pans
		26	Cisterns
		26	Toilet Seats
		5	Urinals and Jnr Flush Masters
		38	Hand Wash Basins and Sinks
		7	Baths
		10	Showers
		16	Geysers
		15	Water Meters
		11	2.5kl Septic Tank connected to 12m French Drains
3	Fencing, cleaning, site keeping	3 106 m	Fencing with gates
		1	Borehole
		1	Pulsar Chlorination System
		1	Main Water Meter
		1	Pressed Steel Tank (12kl)
		10	Carports (6 single) & (4 double)
		260 m	Roads (concrete and paving)
		1 353 m²	Concrete Areas
		1 950 m²	Paved Areas
		150 m	Stormwater network

Electrical Infrastructure:

No.	Installation	Number off	Description
		25	Buildings and structures
		32	Distribution boards
		62	Switch socket outlets (16A)
		29	Isolating switches
		9	Stoves
		96	Light switches
		96	Light fittings
		22	Perimeter flood lights
		12	Area lights
		10	Street lights
3	Power generation	1	125 KVA Generator – Stand-by only

Mechanical Infrastructure:

No.	Installation	Number off	Description
		13	12 000 BTU - Air-conditioning units at various buildings
		5	18 000 BTU - Air-conditioning units at various buildings
		1	36 000 BTU - Air-conditioning units at various buildings
		19	4.5 kg (STP) Firefighting extinguishers
		6	5.0 kg (CO^2) Firefighting extinguishers
		27	9.0 kg (STP) Firefighting extinguishers

SS 04.02 **RAMATSELISO LAND PORT OF ENTRY**

The installations to be maintained under the maintenance and servicing contract at Ramatseliso Land Port of Entry shall consist of:

Civil Infrastructure:

No.	Installation	Number off	Description
		25	Buildings and structures
		668 m²	Residential Area
		701 m²	Operational Area
		110	Door Locks
		82	Windows fitted with blinds
		7	Stainless Steel Hand Dryers
		11	Stainless Steel Wall Mounted Bins and She Bins
		5	Stainless Steel Sanitizers
		8	Stainless Steel Soap Dispensers
		145	Taps and Valves
		26	WC Pans
		26	Cisterns
		26	Toilet Seats
		5	Urinals and Jnr Flush Masters
		38	Hand Wash Basins and Sinks
		7	Baths
		10	Showers
		16	Geysers
		15	Water Meters
		11	2.5kl Septic Tank connected to 12m French Drains
3	Fencing, cleaning, site keeping	3 106 m	Fencing with gates
		1	Borehole
		1	Pulsar Chlorination System
		1	Main Water Meter
		1	Pressed Steel Tank (12kl)
		10	Carports (6 single) & (4 double)
		260 m	Roads (concrete and paving)
		1 353 m²	Concrete Areas
		1 950 m²	Paved Areas
		150 m	Stormwater network

E
l
e
c
t
r
i
c
a

Electrical I Infrastructure:

No.	Installation	Number off	Description
		16	Buildings and structures
		15	Distribution boards
		27	Switch socket outlets (16A)
		13	Isolating switches
		5	Stoves
		47	Light switches
		47	Light fittings
		3	Perimeter flood lights
		3	Area lights
		2	Street lights
3	Power generation	2	130 KV Generator – Permanent Alternating

Mechanical Infrastructure:

No.	Installation	Number off	Description
1	Heating, ventilation and air-conditioning	8	9 000 BTU - Air-conditioning units at various buildings
		3	4.5 kg (STP) Firefighting extinguishers
		2	5.0 kg (CO^2) Firefighting extinguishers
		19	9.0 kg (STP) Firefighting extinguishers

SS 04.03 ONGELUKSNEK LAND PORT OF ENTRY

The installations to be maintained under the maintenance and servicing contract at Ongeluksnek Land Port of Entry shall consist of:

Civil Infrastructure:

No.	Installation	Number off	Description
		25	Buildings and structures
		668 m²	Residential Area
		701 m²	Operational Area
		110	Door Locks
		82	Windows fitted with blinds
		7	Stainless Steel Hand Dryers
		11	Stainless Steel Wall Mounted Bins and She Bins
		5	Stainless Steel Sanitizers
		8	Stainless Steel Soap Dispensers
		145	Taps and Valves
		26	WC Pans
		26	Cisterns
		26	Toilet Seats
		5	Urinals and Jnr Flush Masters
		38	Hand Wash Basins and Sinks
		7	Baths
		10	Showers
		16	Geysers
		15	Water Meters
		11	2.5kl Septic Tank connected to 12m French Drains
3	Fencing, cleaning, site keeping	3 106 m	Fencing with gates
		1	Borehole
		1	Pulsar Chlorination System
		1	Main Water Meter
		1	Pressed Steel Tank (12kl)
		10	Carports (6 single) & (4 double)
		260 m	Roads (concrete and paving)
		1 353 m²	Concrete Areas
		1 950 m²	Paved Areas
		150 m	Stormwater network

E

Electrical Infrastructure:

No.	Installation	Number off	Description
		18	Buildings and structures
		19	Distribution boards
		51	Switch socket outlets (16A)
		21	Isolating switches
		11	Stoves
		60	Light switches
		60	Light fittings
		9	Perimeter flood lights
		5	Area lights
		3	Street lights
3	Power generation	2	130 KV Generator – Permanent Alternating

Mechanical Infrastructure:

No.	Installation	Number off	Description
		5	12 000 BTU - Air-conditioning units at various buildings
		4	18 000 BTU - Air-conditioning units at various buildings
		1	24 000 BTU - Air-conditioning units at various buildings
		5	2.0 kg (STP) Firefighting extinguishers
		5	5.0 kg (CO_2) Firefighting extinguishers
		24	9.0 kg (STP) Firefighting extinguishers

SS 05 SCOPE DEFINITION

The description of the works given above is not necessarily complete and shall not limit the work to be carried out by the Contractor under this contract.

Approximate quantities of each type of work are given in the contract Schedule of Quantities.

SS 06 ADDITIONAL SITE SPECIFIC INFORMATION

Additional site specific information, including asset inventory list, site specific information, bulk water and sewer installations and ablution facilities are attached to this Additional Specification SS: Site Specific Inventory.

SS 06.01 **TRAVELLERS**

Statistics for year 2023 to date		
	AVERAGE PER MONTH	
	Arrival	Departure
Boesmansnek	56	51
Ramatseliso	85	60
Ongeluksnek	7	6

SS 07.03 **PORT OF ENTRY STAFF**

Boesmansnek Land Port of Entry:							
STAFF	BMA	SARS	SAPS	DHA	AGR	HLH	TOTAL STAFF
Number	8		5				11

Ramatseliso Land Port of Entry:							
STAFF	BMA	SARS	SAPS	DHA	AGR	HLH	TOTAL STAFF
Number			11				11

Ongeluksnek Land Port of Entry:							
STAFF	BMA	SARS	SAPS	DHA	AGR	HLH	TOTAL STAFF
Number			11				11

PART C4: SITE INFORMATION

PG-03.1 (EC) SITE INFORMATION – GCC 3rd Edition (2015)

Project title:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)				
Tender no:	*H24/015AI*	**WCS no:**	*056390*	**Reference no:**	*H24/015AI*

C4 Site Information

The location of each facility is briefly below:

Boesmansnek Land Port of Entry including onsite staff housing, is situated in KwaZulu-Natal Province on the southern borderline crossing into Lesotho, approximately 170 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.

The GPS coordinate is 29°50'37.72"S, 29°12'42.46"E

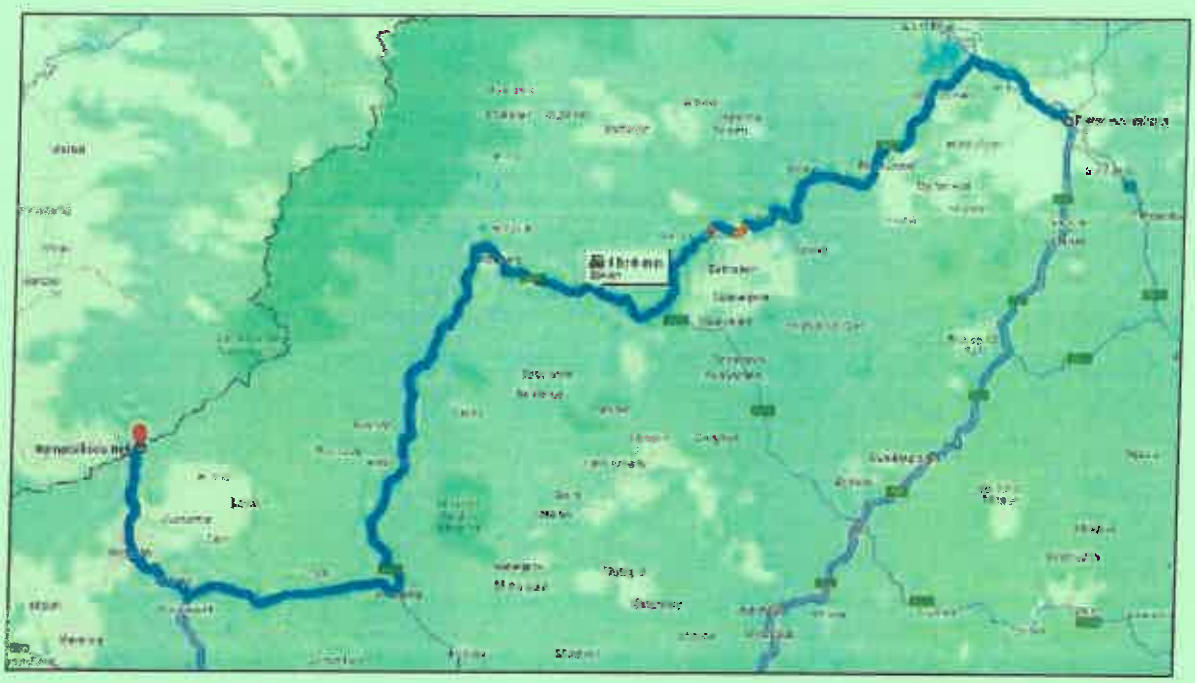
The following map indicating the position of Boesmansnek Land Port of Entry as well as aerial views of the port of entry:

Aerial view of Boesmansnek Land Port of Entry on the RSA/Lesotho borderline:

Ramatseliso Land Port of Entry including onsite staff housing, is located in the province of Eastern Cape on the southern borderline coring into Lesotho, approximately 270 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.

The GPS coordinate is 30° 3'2.24"S, 28°55'59.72"E

The following map indicating the position of Ramatseliso Land Port of Entry as well as aerial views of the port of entry:



Aerial view of Ramatseliso Land Port of Entry on the RSA/Lesotho borderline:

Ongeluksnek Land Port of Entry including onsite staff housing, is located in the Eastern Cape province, situated on the southern borderline crossing in to Lesotho, approximately 320 km westwards from the nearest major city Pietermaritzburg in KwaZulu-Natal.

The GPS coordinate is 30°20'35.08"S, 28°18'40.15"E

The following map indicating the position of Ongeluksnek Land Port of Entry as well as aerial views of the port of entry:

Aerial view of Ongeluksnek Land Port of Entry on the RSA/Lesotho borderline:

Department
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

C4.2 Additional info:

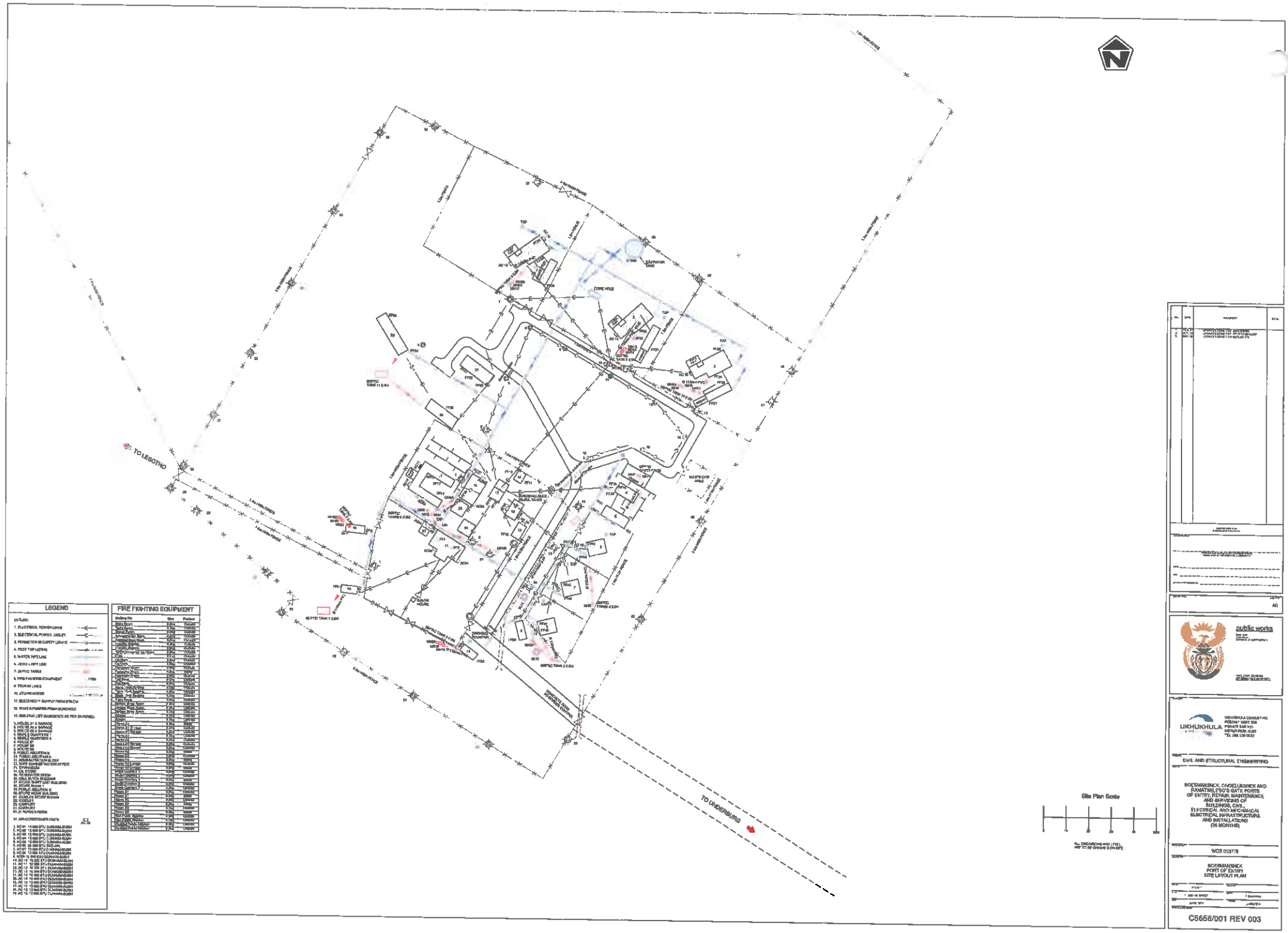
Additional drawings can be attained from client.

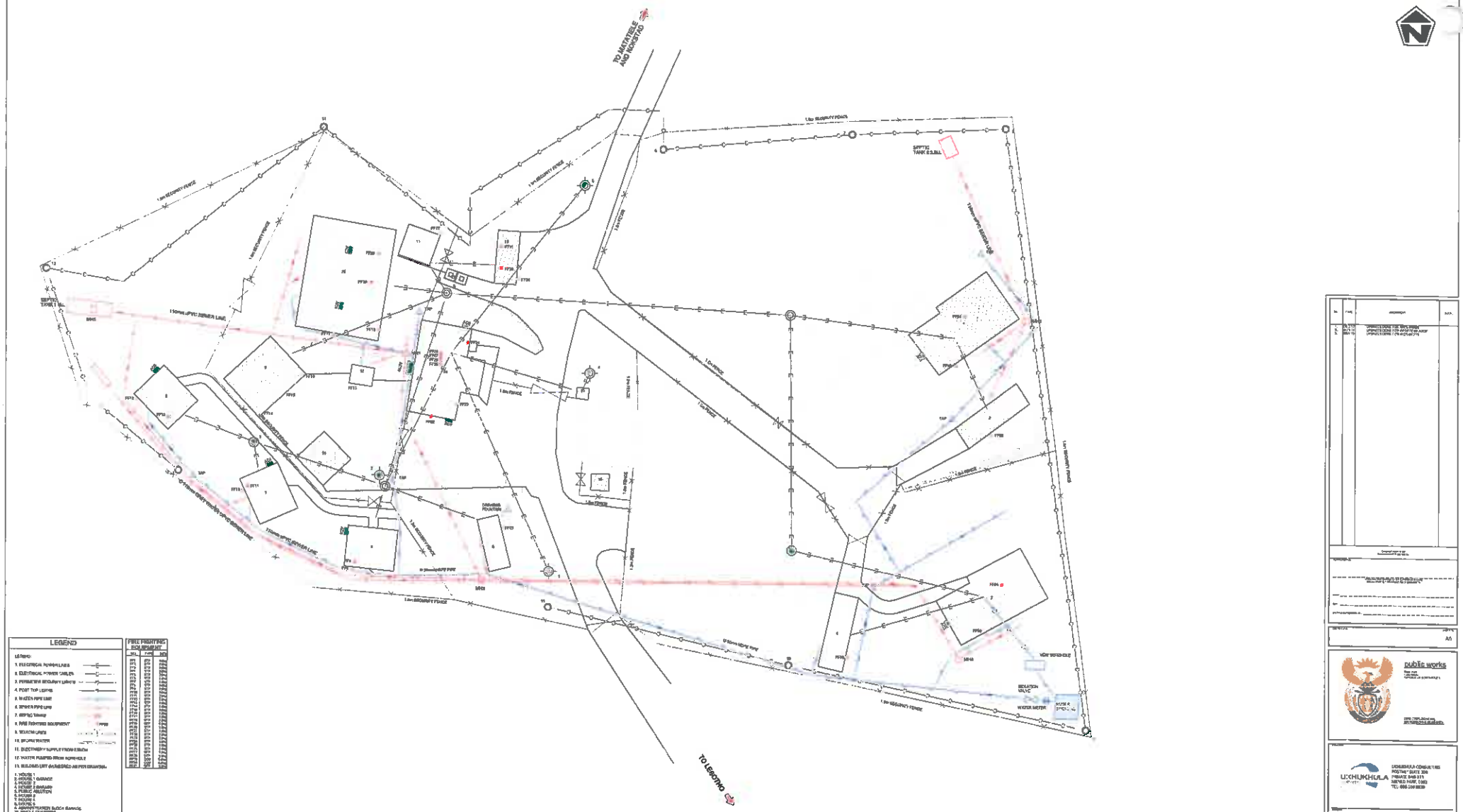
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

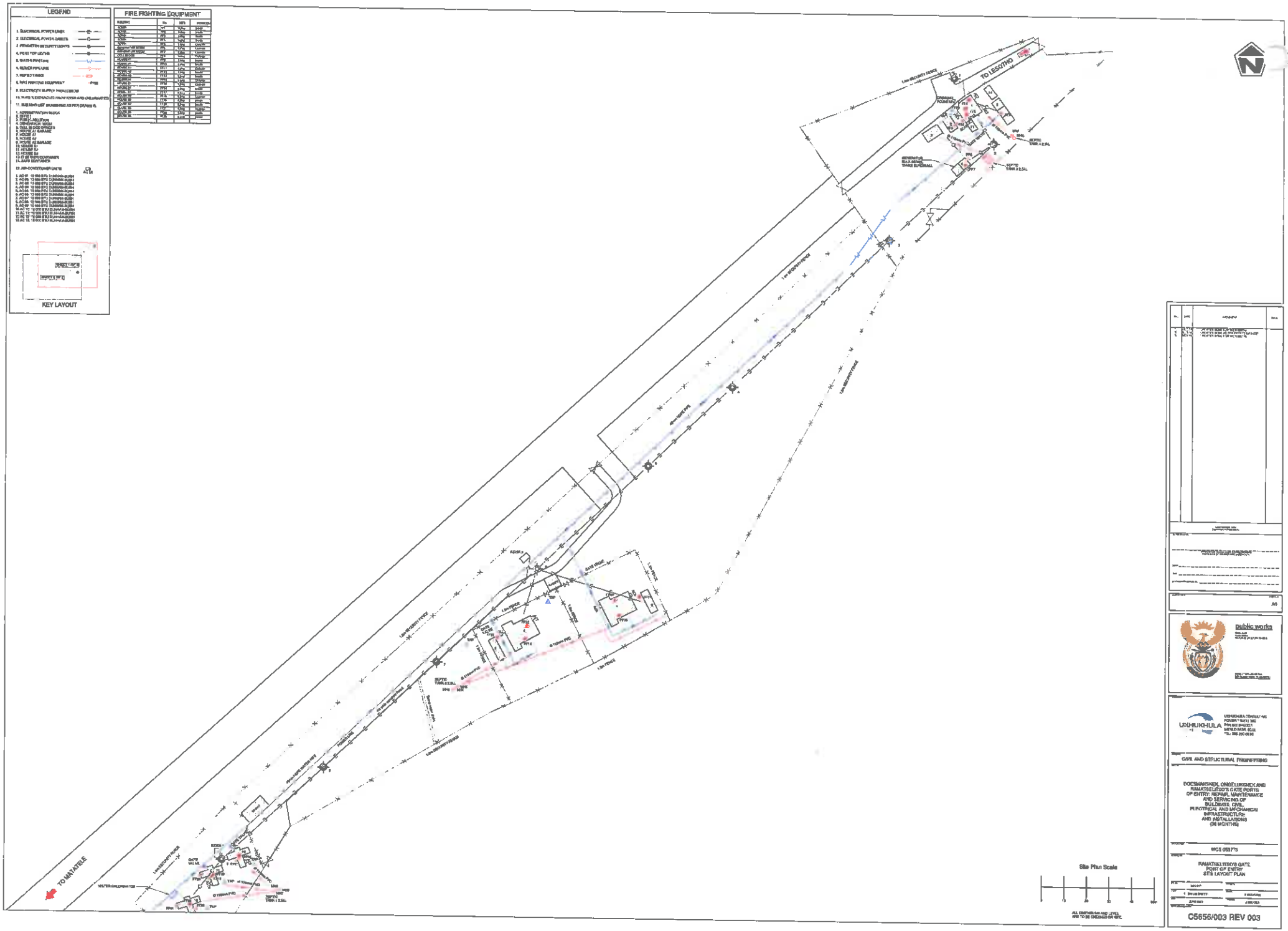
DRAWING REGISTER

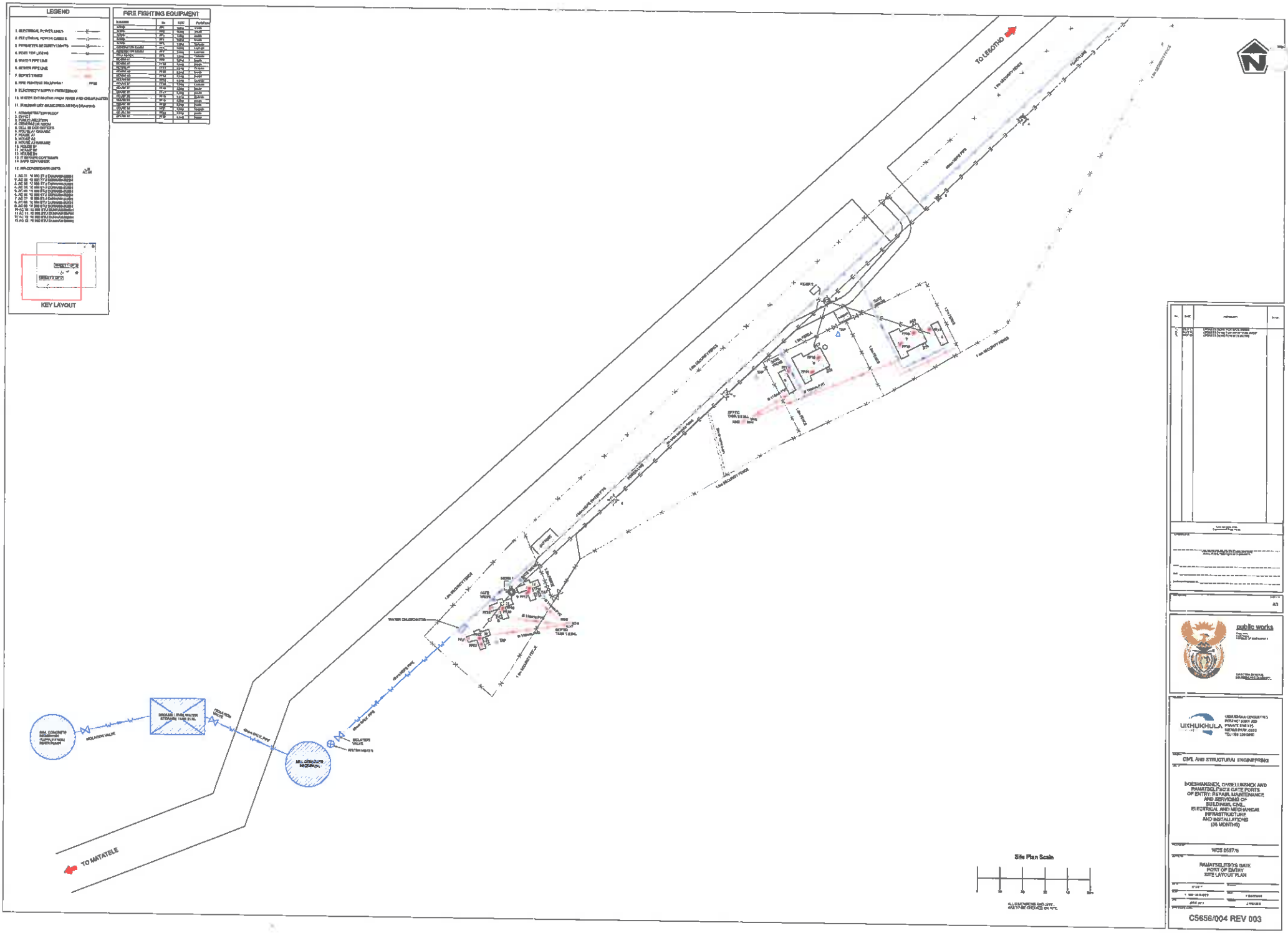
WCS NO:	**056390**
TENDER NO:	H24/015AI
PROJECT DESCRIPTION:	BOESMANSNEK, ONGELUKSNEK AND RAMATSELISO LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

Date Issued	DRAWING No	No	REVISION No	DRAWING TITLE	NUMBER OF COPIES	TYPE (size & format)
BOESMANSNEK LAND PORT OF ENTRY						
JUNE 2019	C5656/001 REV 003	1		Boesmansnek Port Of Entry Site Layout Plan	1	A3
RAMATSELITSO LAND PORT OF ENTRY						
JUNE 2019	C5656/003 REV 003	1		Ramatselitso's Gate Port Of Entry Site Layout Plan	1	A3
JUNE 2019	C5656/004 REV 003	2		Ramatselitso's Gate Port Of Entry Site Layout Plan		
ONGELUKSNEK LAND PORT OF ENTRY						
JUNE 2019	C5656/002 REV 003	1		Ongeluksnek Port Of Entry Site Layout Plan	1	A3


TO LESOTHO
TO UNDERBURG
CREW HOUSE
GUARD HOUSE
GUARD HOUSE
SEPTIC TANK
SEPTIC TANK
SEPTIC TANK
SEPTIC TANK
SEPTIC TANK
SEPTIC TANK
40 KL PTD TANK
40 KL PTD TANK
2 KL PTD TANK
2 KL PTD TANK
2


TO MATABELE AND BEITBRIDGE
TO LEGOMBO
SEPTIC TANK 3 KL
SEPTIC TANK 5 KL
1.8m SECURITY FENCE
1.8m FENCE
1 Horse uPVC SEWER LINE
110mm uPVC SEWER LINE
75mm uPVC SEWER LINE
75mm HDPE SEWER LINE
DRAINAGE FOUNTAIN
MH1
MH2
MH3
MH4
MH5
MH6
MH7
MH8
MH9
MH10
MH11
MH12
MH13
MH14
MH15
MH16
MH17
MH18
MH19
MH20
MH21
MH22
MH23
MH24
MH25
MH26
MH27
MH28
MH29
MH30
MH31
MH32
MH33
MH34
MH35
MH36
MH37
MH38
MH39
MH40


LEGEND
1. ELECTRICAL POWER LINES
2. ELECTRICAL POWER CABLES
3. ILLUMINATION SECURITY LIGHTS
4. POST TOP LIGHTS
5. WATER PIPE LINE
6. SEWER PIPE LINE
7. SEPTIC TANKS
8. FIRE FIGHTING EQUIPMENT
9. ELECTRICITY SUPPLY TRANSFORMER
10. WATER RESERVOIRS FROM NEW AND UNDERGROUND
11. BUILDINGS LIST NUMBERED AS PER DRAWING
1. ADMINISTRATION BLOCK
2. OFFICES
3. PUBLIC ABLUTION
4. DEPARTMENTAL BLOCK
5. CELL BLOCK OFFICES
6. HOUSE A1 GARAGE
7. HOUSE A1
8. HOUSE A2
9. HOUSE A2 GARAGE
10. HOUSE B1
11. HOUSE B2
12. HOUSE B3
13. 20' SEA PORTS CONTAINER
14. SHIPS BERTHING
15. AIR-CONDITIONER UNITS
KEY LAYOUT
FIRE FIGHTING EQUIPMENT
TO LESOTHO
TO MATATIELE
1.5m SECURITY FENCE
SEPTIC TANK 2.5KL
SEPTIC TANK 3.5KL
SEPTIC TANK 4.5KL
GATE HOUSE
WATER RESERVOIR
Site Plan Scale
0 10 20 30 40 50m
ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE
Public works
URUKHULA
CIVIL AND STRUCTURAL ENGINEERING
BOESMANSPOEK, GROBLERSPOEK AND MAHATSELLISPOORT GATE PORTS OF ENTRY: REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, ELECTRICAL AND MECHANICAL INFRASTRUCTURE AND INSTALLATIONS (36 MONTHS)
WCS 059775
MAHATSELLISPOORT GATE PORT OF ENTRY SITE LAYOUT PLAN
C5656/003 REV 003


LEGEND
KEY LAYOUT
FIRE FIGHTING EQUIPMENT
TO LESOTHO
TO MATATIELE
Site Plan Scale
public works
UKHUKHULA
CIVIL AND STRUCTURAL ENGINEERING
INOESMANSNECK, CHRISTIANSNECK AND RAMATSELITSO'S GATE PORTS OF ENTRY: REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, ELECTRICAL AND MECHANICAL INFRASTRUCTURE AND INSTALLATIONS (36 MONTHS)
WCS 053776
RAMATSELITSO'S GATE: PORT OF ENTRY SITE LAYOUT PLAN
C5656/004 REV 003