2024/08/23

BOOK 1 OF 2

public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER NO: H24/014 AI

GROBLERSBRIDGE AND STOCKPOORT 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:

THE DIRECTOR GENERAL
DEPARTMENT OF PUBLIC WORKS
AND INFRASTUCTURE
PRIVATE BAG X65
PRETORIA
0001

NAME OF TENDERER: .....

TABLE OF CONTENTS

1. THE TENDER

1.1. TENDERING PROCEDURES

PA-04 Notice and Invitation to Tender

DPW-03 Tender Data

1.2. RETURNABLE DOCUMENTS

PA-09 (EC) List of returnable documents

DPW-07 (EC) Form of Offer and Acceptance

PA-11 (EC) Bidders Disclosure

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

PA-16 Preference Points Claim Form

PA- 40 Declaration of designated groups

DPW-09 (EC) Particular of Tenderer's Projects

DPW-16 (EC) Site Inspection Meeting Certificate

DPW-21 (EC) Record of Addenda to Tender Documents

DPW-22 (EC) Particulars of Electrical Contractor

DPW-23 (EC) Schedule for Imported Materials & Equipment

DPW-15 (EC) Schedule of Subcontractors

Annexure A Plant and Equipment

PA-29 Certification of Independent Bid Determination

PA-16.1 Ownership Particulars

Declaration – EPWP programme

B-BBEE exempted affidavit

2. THE CONTRACT

2.1. AGREEMENT AND CONTRACT DATA

DPW-05 (EC)	Contract Data
DPW-10.2 (EC)	Variable Construction Guarantee
DPW-10.4 (EC)	Fixed Construction Guarantee

2.2. PRICING DATA

PG-02.1	Pricing Instructions
C2.1	Bill of Quantities

2.3. SCOPE OF WORK

PG-01.1 (EC) Scope of Works - GCC 2015

2.3.1 Standard Specifications

2.3.2 Project Specifications

2.3.3 Technical Specifications

2.3.4 Additional Specifications

2.4. SITE INFORMATION

PG-03.1 (EC) Site Information - GCC 2015

2.4.1 Drawings

2.4.2 Locality Plan

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY:

36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL MECHANICAL, ELECTRICAL AND INSTALLATIONS

(APPOINTMENT OF A CONTRACTOR)

1. THE TENDER

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY:

36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

1.1 TENDERING PROCEDURES

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

THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE INVITES TENDERS FOR:

Project title:	GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR

Tender no:	H24/014AI	**Reference no:**	H24/014AI
Advertising date:	23 August 2024	**Closing date:**	23 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 are to provide proof of the proposed Work Force in the form of a project organogram 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 Diploma 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) 1 x Plumber (with a minimum NQF Level 1 or Higher or an Artisan Recognition of Prior Learning (ARPL) (iv) Process Controllers Class III (1) and Class II (1) or Higher (All required) (v) 1 x Electrician (vi) 1 x 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 subcontractor(s) and should indicate the details of the subcontractor(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): • CVs 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 Class III and Class II. 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 any one (1) or two (2) item(s) listed above submitted = 0 points.	35

9.2 RELEVANT EXPERIENCE OF THE COMPANY Bidders are to provide and submit a list of comparable projects of a similar nature and monetary value of CIDB Grade 5 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 are 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 ANNEXURE A for cleaning equipment, Instrumentations, 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. Information 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 wil 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 <u>shall</u> 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 • 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).
	OR 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.	**Not 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 256 Madiba Street CGO Building. 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:	GROUBLER LAND PORT OF ENRTY - LIMPOPO PROVINCE RSA GPS Coordinates: 22° 59′ 58.88″ S - 27° 56′ 38.46″ E		
Virtual meeting link:	N/A		
Date:	13 September 2024	**Starting time:**	10:00 AM

11. ENQUIRIES

11.1. Technical enquiries may be addressed to:

DPWI Project Manager	Hloniphile Vilakazi	**Telephone no:**	012 492 2243
Cellular phone no	077 608 7365	**Fax no:**	n/a
E-mail	hloniphile.vilakazi@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:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*
Reference no:	*H24/014Al*

Tender / Quotation no:	H24/014Al	**Closing date:**	*23 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: H24/014AI

C.1.4	The Employer's agent is:	
	Name:	***Lubisi Consulting Engineers***
	Capacity:	***Private Project Manager***
	Address:	***20 BRANDER STREET NELSPRUIT 1200 MPUMALANGA***
	Tel:	***013 752 6416 / 071 772 5499***
	Fax:	***013 752 6418***
	E-mail:	***tichaona@lubisi.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: ***Not 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 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***	

Tender no: H24/014AI

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*
1. PROJECT WORK FORCE The bidders are to provide proof of the proposed Work Force in the form of a project organogram 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 Diploma 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) 1 x Plumber (with a minimum NQF Level 1 or Higher or an Artisan Recognition of Prior Learning (ARPL) (iv) Process Controllers Class III (1) and Class II (1) or Higher (All required) (v) 1 x Electrician (vi) 1 x 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 subcontractor(s) and should indicate the details of the subcontractor(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): • CVs 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 Class III and Class II. 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 any one (1) or two (2) item(s) listed above submitted = 0 points.	
2. RELEVANT EXPERIENCE OF THE COMPANY Bidders are to provide and submit a list of comparable projects of a similar nature and monetary value of CIDB Grade 5 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
3. 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 wil 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
4. EQUIPMENTS The bidders are 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 ANNEXURE A for cleaning equipment, Instrumentations, 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.	15

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. Information submitted for any one (1) item listed above = 1 point No information submitted = 0 point	
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 b 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 Statemen 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.
	4. ☐ **OR** 5. ☐	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

Tender no: H24/014AI

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: ***256 MADIBA STREET . CGO BUILDING ROOM 121 PRETORIA***
C.3.8	The words "responsive tender" and "acceptable tender" shall be construed to have the same meaning.

Tender no: H24/014AI

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.

PA-09 (EC): LIST OF RETURNABLE DOCUMENTS

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)***		
Tender / Quotation no:	H24/014 AI	**Reference no:**	H24/014 AI
Receipt Number:			

1. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Form of Offer and Acceptance (DPW-07 EC)	4 Pages	Yes
Submission of Bidder's disclosure (PA-11)	3 Pages	Yes
Resolution of Board of Directors (PA-15.1) *(if applicable)*	2 Page	Yes
Resolution of Board of Directors to enter into Consortia or JV's (PA-15.2) *(if applicable)*	2 Pages	Yes
Special Resolution of Consortia or JV's (PA-15.3) *(if applicable)*	3 Pages	Yes
Preference points claim form in terms of the Preferential Procurement Regulations 2017 (PA – 16.1)	10 Pages	Yes
Fully completed Declaration of Designated Groups (PA 40)	2 Pages	Yes
Particulars of Tenderer's Projects (DPW-09 EC)	2 Pages	Yes
Site Inspection Meeting Certificate (DPW-16 EC) (*if applicable*).	1 Page	Yes
Record of Addenda to tender documents (DPW-21 EC)	1 Page	Yes
DPW-22 (EC) Particulars of Electrical Contractor	1 Page	Yes
DPW-23 (EC) Schedule for Imported Materials & Equipment	1 Page	Yes
DPW-15 (EC) Schedule of Subcontractors	1 Page	Yes
Annexure A Plant and Equipment	4 Pages	Yes

* In compliance with the requirements of the cidb SFU Annexure G

2. **ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES**
Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Any additional information required to complete a risk assessment *(if applicable)*	-	Yes
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 .		
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. **RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT**
Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Schedule of proposed sub-contractors (DPW-15 EC) *(if applicable)*	1 Page	Yes
Particulars of Electrical Contractor (DPW-22 EC) *(if applicable)*	1 Page	Yes
Mechanical / Electrical / Security Work material and equipment schedules *(if applicable)*	1 Pages	Yes
Schedule for Imported Materials and Equipment (DPW-23 EC) *(if applicable)*	1 Page	Yes

4. **OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT**
(Insert a tick in the "Returnable document" column to indicate which documents must be returned with the tender)

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts)	130 Pages	☐Yes ☐No
Fully priced and completed sectional summary- and final summary pages with the tender.	3 Pages	☐Yes ☐No

Tender no: H24/014 AI

Tender document name	Number of pages issued	Returnable document
insert document name	Pages	X☐Yes ☐No
insert document name	Pages	X☐Yes ☐No
insert document name	Pages	☐Yes ☐No

5. ADDITIONAL INFORMATION THAT MAY BE REQUIRED FOR TENDER EVALUATION PURPOSES

Legal Status of Tendering Entity: **If the Tendering Entity is:**	**Documentation to be submitted with the tender, or which may be required during the tender evaluation:**
a. A close corporation, incorporated prior to 1 May 2011 under the Close Corporations Act, 1984 (Act 69 of 1984, as amended)	Copies of the Founding Statement – CK1
b. A profit company duly registered as a private company. [including a profit company that meets the criteria for a private company, whose Memorandum of Incorporation states that the company is a personal liability company in terms of Section 8(2)(c) of the Companies Act, 2008 (Act 71 of 2008, as amended)].	Copies of: i. Certificate of Incorporation – CM1; ii. Shareholding Certificates of all Shareholders of the company, plus a signed statement of the company's Auditor, certifying each Shareholder's ownership / shareholding percentage relative to the total; and/or iii. Memorandum of Incorporation in the case of a personal liability company.
c. A profit company duly registered as a private company in which any, or all, shares are held by one or more other close corporation(s) or company(ies) duly registered as profit or non-profit company(ies).	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 profit company duly registered as a public company.	Copy of Certificate of Incorporation – CM1, and a signed statement of the company's Secretary or Auditor confirming that the company is a public company.
e. A non-profit company, incorporated in terms of Section 10 and Schedule 1 of the Companies Act, 2008 (Act 71 of 2008, as amended).	Copies of: I the Founding Statement – CK1; and ii the Memorandum of Incorporation setting out the object of the company, indicating the public benefit, cultural or social activity, or communal or group interest.
f. A natural person, sole proprietor or a Partnership	Copy(ies) of the Identity Document(s) of: i. such natural person/ sole proprietor, or each of the Partners to the Partnership.
g. A Trust	Deed of Trust duly indicating names of the Trustee(s) and Beneficiary (ies) as well as the purpose of the Trust and the mandate of the Trustees.

Signed by the Tenderer

Name of representative	**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".

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

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

Project title:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*		
Tender / Quotation no:	***H24/014AI***	**Reference no:**	***H24/014AI***

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:
GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

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 no: *H24/014AI*

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 no: *H24/014AI*

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 no: *H24/014AI*

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"

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

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-15.1: 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			

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".

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)

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-15.2: Resolution of Board of Directors to enter into Consortia or Joint Ventures

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 <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

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).*

public works
& infrastructure
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)		
	4. ☐ **OR**	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

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: .....

.....

.....

.....

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

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: ***H24/014AI***

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

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

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: H24/014AI

\# 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)

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

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

Project title:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*		
Tender / quotation no:	H24/014AI	**Closing date:**	23 September 2024
Advertising date:	23 August 2024	**Validity period:**	84 Calendar 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

DPW-16 (EC): SITE INSPECTION MEETING CERTIFICATE

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)***		
Tender / Quotation no:	*H24/014AI*	**Reference no:**	*H24/014AI*
Closing date:			

This is to certify that I, _____ representing

_____ in the capacity of

_____ visited the site on: ***.....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

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

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY:36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS***		
Tender no:	*H24/014AI*	**Reference no:**	*H24/014AI*

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.

Name of Tenderer	Signature	Date

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

Name of Tenderer	Signature	Date

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

DPW-22 (EC): PARTICULARS OF ELECTRICAL CONTRACTOR

Project title:	GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)		
Tender no:	H24/014AI	**Reference no:**	**H24/014AI**

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

Name of Tenderer	Signature	Date

DPW-15 (EC): SCHEDULE OF PROPOSED SUBCONTRACTORS

Project title:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*		
Tender no:	*H24/014AI*	**Reference no:**	*H24/014AI*

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".

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

Project title:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*		
Tender no:	*H24/014AI*	**Reference no:**	*H24/014AI*

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

Project	GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

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:** .....

PA- 29: CERTIFICATION OF INDEPENDENT BID DETERMINATION

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)***		
Tender no:	**H24/014AI**	**Reference no:**	**H24/014AI**

INTRODUCTION

1. This PA-29 [Certificate of Independent Bid Determination] must form part of all bids[1] invited.

2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).[2] Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
   a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
   b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.

4. This form (PA-29) serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

5. In order to give effect to the above, the attached Certificate of Bid Determination (PA-29) must be completed and submitted with the bid:

---

[1] Includes price quotations, advertised competitive bids, limited bids and proposals.

[2] Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

[3] 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.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

_____

(Bid Number and Description)

in response to the invitation for the bid made by:

_____

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of:_____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate.

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder.

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder.

5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

(a) has been requested to submit a bid in response to this bid invitation;

(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

(c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.

6. 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 consortium[3] will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

(a) prices;

(b) geographical area where product or service will be rendered (market allocation)

(c) methods, factors or formulas used to calculate prices;

(d) the intention or decision to submit or not to submit, a bid;

(e) the submission of a bid which does not meet the specifications and conditions of the bid; or

(f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. 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.

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.

Name of Bidder	Signature	Date	Position

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:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: APPOINTMENT OF A SERVICE PROVIDER (CONTRACTOR) FOR THE 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***
Tender no:	H24/014 AI

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)*

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)

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.

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)

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			

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**

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 : _____

public works & infrastructure
Department
Public Works and Infrastructure
REPUBLIC OF SOUTHAFRICA

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

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

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)***				
Tender no:	***H24/014AI***	**WCS no:**	*056406*	**Reference no:**	*H24/014AI*

	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
INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS	

Tender no: *H24/014AI*

A 2.0 Site [1.1.1.29]

Erf / stand number	Grobblersbridge and Stockpoort Port
Site address	Groblersbridge Farm And Leef Voluit Farm
Township / Suburb	Groblersbridge And Stockpoort Port
City / Town	Lephalale Local Municipality
Province	Limpopo Province
Local authority	Lephalale Local Municipality
GPS Coordinates	Groblersbridge 22° 59′ 58.88″ S ; 27° 56′ 38.46″ E Stockpoort 23°24'7.35"S : 27°21'11.27"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	hloniphile.vilakazi@dpw.gov.za	Telephone	012 492 2243
Postal address	Dept of Public Works and Infrastructure Private Bag X65 Pretoria 0001		
Physical address	Dept of Public Works and Infrastructure 256 Madiba Street Pretoria CBD 0001		

A 3.2 Employer's Representative:

Name	Tich Chikukwa Pr Tech Eng	Telephone number	013 752 6416
E-mail	tichaona@lubisi.co.za	Mobile number	071772 5499
Postal address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		
Physical address	Lubisi Consulting Engineers 20 BRANDER STREET Nelspruit 1200		

Tender no: *H24/014AI*

A 4.0	**Employers Agent/s**		
A 4.1	**Principal Agent** [1.1.1.16]	**Discipline**	Multi Discipline (Civil, Electrical and Mechanical)

Name	Lubisi Consulting Engineers		
Legal entity of above	Lubisi Consulting Engineers	Contact person	Chalmers Pagiwa Pr Eng
Practice number	20050009	Telephone number	013 752 6416
Country	South Africa	Mobile number	082 883 8260
E-mail	info@lubisi.co.za		
Postal address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		
Physical address	Lubisi Consulting Engineers 20 BRANDER STREET Nelspruit 1200		

A 4.2	**Agent** [1.1.1.16]	**Discipline**	Electrical

Name	Lubisi Consulting Engineers		
Legal entity of above	Lubisi Consulting Engineers	Contact person	Itai Gonese Pr Eng
Practice number	20140451	Telephone number	013 752 6416
Country	South Africa	Mobile number	073 792 9170
E-mail	info@lubisi.co.za		
Postal address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		
Physical address	Lubisi Consulting Engineers 20 BRANDER STREET Nelspruit 1200		

A 4.3	**Agent** [1.1.1.16]	**Discipline**	Mechanical

Name	Lubisi Consulting Engineers		
Legal entity of above	Lubisi Consulting Engineers	Contact person	Patrack Mashiri Pr Eng
Practice number	20110518	Telephone number	013 752 6416
Country	South Africa	Mobile number	082 888 8841
E-mail	info@lubisi.co.za		
Postal address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		
Physical address	Lubisi Consulting Engineers 20 BRANDER STREET Nelspruit 1200		

Tender no: *H24/014AI*

A 4.4	**Agent** [1.1.1.16]	**Discipline**	Occupational Health and Safety Agent

Name	Lubisi Consulting Engineers		
Legal entity of above	Lubisi Consulting Engineers	Contact person	Bert Vijioen Pr CHSA
Practice number	CHSA/033/2016	Telephone	013 752 6416
Country	South Africa	Mobile number	082 415 3714
E-mail	info@lubisi.co.za		
Postal address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		
Physical address	Lubisi Consulting Engineers PO Box 12393 Nelspruit 1200		

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		

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		

Tender no: *H24/014AI*

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		

Tender no: *H24/014AI*

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

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 Lubisi Consulting Engineers

Principal agent's and agents' interest or involvement in the works other than a professional interest
NONE

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%	N/A
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%	N/A
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%	N/A
	Plant and materials supplied by the Employer [8.6.1.1.2]	R Eng / PQS to determine value	N/A
	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	N/A
	Direct contractors [8.6.1.1.2] where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	N/A
	Special Risks Insurance issued by Sasria [8.6.1.2]	R Eng / PQS to determine value	N/A

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	N/A
Subcontractors insurance [8.6.3] where applicable, if not included in works insurance nor by sub-Contractors	R Eng / PQS to determine value	N/A
Other insurances [8.6.1.5]		
Free issue where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	N/A
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	N/A
Other insurances: If applicable, description 1:	R Eng / PQS to determine value	N/A
Other insurances; If applicable, description 2:	R Eng / PQS to determine value	N/A

B 7.0 Obligations of the employer

Existing premises will be in use and occupied [5.4.1 & 5.4.2]	N/A
If applicable, description:	
Restriction of working hours [5.8]	N/A
If applicable, description:	
Natural features and known services to be preserved by the contractor [4.7]	N/A
If applicable, description:	
Restrictions to the site or areas that the contractor may not occupy [5.4.1 & 5.4.2]	N/A
If applicable, description:	

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

B 8.0 Subcontractors [4.4]

N/A	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]]

Appicable	If applicable, description of sections
Section 1	Repairs Works
Section 2	Routine maintenance Works
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 no: *H24/014AI*

The contract period is determined as follows (Period/s indicated in months):	
Period to submit contractual obligatory documents including submission and approval of health and safety plan by the appointed Health & Safety Agent	21 days
Period to obtain Construction Permit from Department of Labour upon approval of the Health & Safety Plan by the appointed Health & Safety Agent	21 days
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]	36 months
Period to achieve **Completion** [5.14.4]	3 months
Defect liability period up to and including issuing Final Approval Certificate in months [5.16.1]	12 months
Total Contract Period	36 months

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]	36 months
Notification period for inspection in **working days** by the principal agent.	21 days
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 5000
Penalty amount per calendar day for **late Practical Completion**, excluding VAT. [5.13].	R 5000
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 5000
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 5000

Tender no: *H24/014AI*

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.**	21	21				
The date for practical completion shall be the period in 36 **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]	36					
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]					36 months	
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 5000	
The penalty amount per day for failing to complete **section 2** of the Works is:					R 5000	
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 R5000, 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 R5000, 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

Tender no: *H24/014AI*

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	All building works
14.4	Electrical equipment (e.g. emergency generators, electronic switchgear,etc..)
14.5	Security system/s (e.g. Access control, Intruder alarm, etc.)
14.6	Air conditioning system and plant
14.7	
14.8	
14.9	
14.10	

Tender no: *H24/014AI*

B 13.0 Payment [6.10]

Date of month for issue of regular payment certificates Refer [6.10.1]	*30TH*
Contract price adjustment / cost fluctuations [6.8.2]	YES
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

Tender no: *H24/014AI*

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]

Tender no: *H24/014AI*

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.

Tender no: *H24/014AI*

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;

Tender no: *H24/014AI*

	(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.

Tender no: *H24/014AI*

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)
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 ***Exclusive*** to the Contractor. In the event of access to, and possession of, the Site is not exclusive to the Contractor, the following limitations apply: Not applicable to this Contract.

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 ***Polokwane Town***. *(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**. *(Select the applicable industry from Statistical News Release, P0151.1, Tables 2,4,5)* The area for the Producer Price Index for fuel is ***Polokwane***. *(Select the area from Statistical News Release, P0142.1, Table 1.)* The base month is September ***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.

Tender no: H24/014 AI

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.	**Yes**
(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.	***Yes***
(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.	**Yes**
(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.	**Yes**
(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.	**Yes**
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	**No**
(g)	Labour Intensive Works – Condition of Contract.	**Yes**
(h)		***Select***
(i)		***Select***

Tender no: *H24/014AI*

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 **C**

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

Tender no: *H24/014AI*

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**

Tender no: *H24/014AI*

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

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

Director General
Private Bag ***X65***
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: ……., for the **…….** (hereinafter referred to as the **"contract"**) for the sum of R **……**, (**……**), (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 ……. (**……..**) 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

(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** _____ **2024**

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:** _____

_____

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

Director General
Private Bag ***X65***
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: ....., for the ..... (hereinafter referred to as the **"contract"**), for the sum of R ....., (.....), (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 ....., (.....) 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**.

Tender No: H24/014AI

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:** _____

_____

_____

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

Project title:	*GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)*		
Tender / Quotation no:	*H24/014AI*	**Reference no:**	*H24/014AI*

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
m^3.km	=	Cubic metre - kilometre
Km-pas	=	kilometre - pass
m^2.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 *appicable* 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.

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		PRELIMINARY AND GENERAL					
100	SANS 1200 A	GENERAL					
100.01		Scheduled fixed-charge and value-related items:					
	PSA 8.3.1	Fixed preliminary and general charges	Sum	1.0			
100.02	PSA 8.4.1	Scheduled time-related items:					
		0.01 Groblersbridge Port of Entry	Month	36.0			
		0.02 Stockpoort Port of Entry	Month	36.0			
101	PSA 8.8	TEMPORARY WORKS					
101.01	PSA 8.8.4.1	Location and protection of existing services:					
		.01 Water and sewer pipes	Sum	1.0			
		.02 Electrical and other cables	Sum	1.0			
101.02	PSA 8.8.4.2	Hand excavation necessary for locating and exposing existing services in all material:					
		.01 In roadways	m3	80.0			
		.02 In all other areas	m3	80.0			
101.03	PSA 8.9	Additional tests					
		.01 Additional tests required by the Engineer	PC Sum			200,000	00
		.02 Geotechnical Investigation and Geological report and foundation recommendation	PC Sum			160,000	00
		.03 Attendance and profit	%	360,000.0			
101.04	PSA 8.12	Call centre:					
		.01 Call centre for breakdown calls logged	PC Sum			180,000	00
		.02 Charge required by Contractor on sub item .01 above	%	180,000.0			
101.05	SB.02	Update and supply a complete site plan - Groblersbridge and Stockpoort Ports of Entry: For all existing structures, facilities,roads,sewer network, bulk water supply,water network,stormwater drainage,electrical, fire fighting system and telecommunication infrastructures.	Sum			250,000	00
102	PSA 8.6	PRIME COST SUMS					
		.01 Housing for the Engineer's representative	PC Sum			180,000	00
		.02 Charge required by Contractor on sub item .01 above	%	180,000.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
103	PSA 8.13	Occupational Health and Safety .01 Compliance with OHS Act and Construction Regulations 2003	Month	36.0			
104	BF	PEST CONTROL .01 Administer pest control to buildings	PC Sum			100,000	00
		.02 Charge required by Contractor on sub item .01 above	%	100,000.0			
105		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.	Sum			20,000	00
	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.	Sum			20,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
105	SH 04.03	.03 Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period.	Sum			10,000	00
	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.	Sum			10,000	00
	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.	Sum			30,000	00
106		BCOCC CONTINGENCY INFRASTRUCTURE					
		.01 Provide facilities for BCOCC contingency plans	PC Sum			800,000	00
		.02Charge required by Contractor on sub item .01 above	%	800,000.0			
	SM	EMPLOYMENT AND TRAINING OF LABOUR ON THE EPWP- NYS INFRASTRUCTURE PROJECTS Tenderers are advised to study the Additional Specification SM: Employment and Training of EPWP Workers as bound elsewhere in the Tender Document, and then price this Bill accordingly. The EPWP workers will be employed and paid by the Contractor. The Contractor would be responsible for the management and supervision of the workers for the first 8 months of the contract period.					
107		TRAINING OF YOUTH WORKERS (TARGET: 10 YOUTH WORKERS) Orientation, Life skills development and technical skills training:					
107.01	SM11.01.01	Orientation and Life skills development training for youth workers for an average 10 of days per youth worker (ref. SM 11.01.01)	PC Sum			50,000	00
107.02	SM11.01.02	Technical skills training for youth workers for an average of 80 days per youth worker (ref. SM 11.01.02)	PC Sum			120,000	00
107.03	SM11.01.03	Provision of Medical Surveliance	PC Sum			20,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
107.04	SM11.01.04	.03 Profit and attendance for administration of items 1, 2 and 3 above	%	190,000.0			
107.05	SM11.01.05	.04 Payment reduction due to not meeting the training target	Days				
108		TRAVELING OFF-SITE TRAINING:					
	SM11.02.01	Practical Work based Experimental training for 30 days each (ref. SM 11.02.01)					
108.01		.01 Travelling (based on R50 per day return trip/youth worker)	PC Sum			40,000	00
108.02		.03 Profit and attendance for administration of items 1 and 2 above	%	40,000.0			
109	SM11.02.02	EMPLOYMENT OF YOUTH WORKERS					
109.01		The unit of measurement shall be the number of youth workers at the labour rate of R 151.60 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					
109.02		.01 Employment of Youth workers	PC Sum			300,000	00
109.03		.03 Profit and attendance for administration of items 1 and 2 above	%	300,000.0			
110		PROVISION OF EPWP DESIGNED OVERALLS AND HARD HATS AND SAFETY BOOTS (PPE) TO YOUTH WORKERS					
110.01	SM11.04.01	Supply 2 x EPWP branded overalls to each youth worker(ref. SM 11.04.01)	PC Sum			40,000	00
110.02	SM11.04.02	Supply 1 x EPWP branded hard hat to each youth worker (ref. SM 11.04.02)	PC Sum			10,000	00
110.03	SM11.04.03	Supply 1 x pair of safety boots to each youth worker (ref. SM 11.04.03)	PC Sum			40,000	00
110.04		Profit and attendance for administration of items 1, 2 and 3 above	%	90,000.0			
111	SM11.04.04	PROVISION OF BASIC TOOLS FOR YOUTH WORKERS					
		.01 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	PC Sum	1.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.02 Profit and attendance on condition that services and cost has been incurred	%	50,000.0			
112	SM11.04.05	APPOINTMENT OF YOUTH TRAINING COORDINATOR (TEAM LEADER/S)					
		.01 Appointment of Youth Team Leader/s for the duration of the contrac	PC Sum			95,000	00
111		.02 Liason with service provider	hours	200.0			
111.01	SM11.06.01	LOGISTICS FOR EXIT WORKSHOPS					
		Provide logistic items for exit workshop (Catering, Orange Golf T-Shirts, Venue Hire and Sound System).	PC Sum			15,000	00
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		CONTRACT PARTICIPATION GOAL (CPG)					
		PROVISIONAL SUMS					
		As as per the Manual for Consultant Quantity Surveyors:					
		Provisional sums and prime cost items					
		Only with the prior approval of the departmental project manager and after consultation with the departmental quantity surveyor, may a provisional sum or a prime cost (PC) item be inserted in the bills of quantities. For ease of reference all provisional sums are to be kept in a separate section in the bills of quantities.					
		Contingency amount					
		No contingency amount may be included in the bills of quantities.					
		Budgetary allowances					
		No budgetary allowances may be included in the bills of quantities. All work must be measured out in detail. Work for which limited information or details are available must be measured provisionally.					
		THE FOLLOWING ARE SOME PROVISIONAL SUMS THAT MAY BE ALLOWED IN THE BILLS OF QUANTITIES TAKING INTO ACCOUNT THE ABOVE NOTES.					
		COMMUNITY LIASON OFFICER (CLO)					
1		Provide the sum of R168 000,00 (one Hundred And Sixty-eight Thousand Rand) for the community liaison officer for the construction period of 12 months	PC Sum			168,000	00
2		Profit	%	168,000.0			
3		Attendance	%	168,000.0			
		PROCUREMENT OF CONSTRUCTION MATERIAL FOR CONTARCT PARTICPATION GOAL					
1		Provide the sum of R 300 000,00 (Three hundred thousand Rand) for the procurement of construction material	PC Sum			300,000	00
2		Profit	%	300,000.0			
3		Attendance	%	300,000.0			
		CLERK OF WORKS					
1		Provide the sum of R108 000,00 (One Hundred And eight Thousand Rand) for the clerk of works for the construction period of 12 months	PC Sum			108,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
2		Profit	%	108,000.0			
3		Attendance	%	108,000.0			
		CONTRACT PARTICIPATION GOAL (CPG) Note to tenderers: As CPGs may not provide any bidder a competitive advantage. Provisional amounts and fixed percentages for profit and attendance have been provided. Only the provisional amount will be adjusted once the awarded tender amount and/or the beneficiaries have been appointed, and the final values have been ascertained.					
1		MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS					
1.1		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 R150,000.00 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.					
1.2		Allowance for monitoring and monthly reporting on material purchased from Local Building Material Manufacturers by main contractor and subcontractors.	%	100,000.0			
1.3		Allowance for profit, all inclusive of associated costs to the contractor for implementation.	%	100,000.0			
1.4		Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	100,000.0			
2		MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS					
2.1		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 R150,000.00 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.					
2.2		Allowance for monitoring and monthly reporting on material purchased from Local Building Material Suppliers by main contractor and subcontractors.	%	100,000.0			
2.3		Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	100,000.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
2.4		Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	100,000.0			
3		MINIMUM TARGETED LOCAL LABOUR SKILLS DEVELOPMENT					
3.1		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			150,000	00
3.2		Allowance for monitoring and monthly reporting on training provided by main contractor and subcontractors.	%	150,000.0			
3.3		Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	150,000.0			
3.4		Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	150,000.0			
4		MINIMUM TARGETED ENTERPRISE DEVELOPMENT					
4.1		Provision is made for (insert percentage) % 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.	PC Sum			100,000	00
4.2		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			400,000	00
4.3		Allowance for monitoring and monthly reporting on SMME subcontracting by main contractor and subcontractors including training provided.	%	500,000.0			
4.4		Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	500,000.0			
4.5		Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	500,000.0			
5		MINIMUM TARGETED SKILLS DEVELOPMENT GOALS					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
5.1		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.					
5.2		"• 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			220,000	00
5.3		Allowance for monitoring and monthly reporting on skills development by main contractor and subcontractors.	%	220,000.0			
5.4		Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	220,000.0			
		Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	220,000.0			
6		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."					
6.1		Refer to separate EPWP-NYS BOQ					
6.2		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.	%	864,893.0			
7		LABOUR INTENSIVE PARTICIPATION GOAL					
7.1		Labour Intensive Participation Goal - Labour in tensive works to the value of R2,250,000.00 (Insert project specific amount) 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.					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
7.2		Allowance for monitoring and monthly reporting on Works executed by means of Labour Intensive methods by main contractor and subcontractors.	%	500,000.0			
7.3		Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	500,000.0			
8		Enterprise Development					
8.1		Appointment of training co-ordinator (As determined by the PQS)	number	12.0			
8.2		Appointment of Mentor /Training Service provider (As determined by the PQS)	number	12.0			
8.3		Needs Analysis and Enterprise Development Plan per Targeted Enterprise (As determined by the PQS)	number	4.0			
8.4		Monitoring and Interim reporting per targeted enterprise (As determined by the PQS)	number	12.0			
8.5		Project Completion report per Targeted Enterprise (As determined by the PQS)	number	4.0			
Total Carried Forward To Summary							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS					
		BA : ROOFS					
200		CLADDING AND SHEETING					
200.01	BA.01	Supply and install cladding and sheeting:					
		.01 0,6 mm Thick galvanised IBR or equivalent approved sheeting with CHROMADEK silicone polyester finish on one side and CHROMADEK finish on the other side in:					
		0.01 Roof covering with pitches exceeding 15°, fixed to timber or steel purlins	m2	200.0			
200.02	BA.03	Carefully remove existing cladding and sheeting					
		.01 Existing galvanised sheet metal roof covering removed from timber or steel purlins or girts	m2	200.0			
200.03	BA.06	Supply and install sundry items, etc.:					
		.01 0,8 mm 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:					
		.01Ridge flashing	m	120.0			
		.02Side wall flashing	m	80.0			
200.04	BA.09	Supply and install rainwater goods:					
		.01 0,8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:					
		0.01 125 x 100 mm self-supporting box gutter	m	250.0			
		0.02 125 x 100 mm Down pipe	m	120.0			
200.05	BA.10	Carefully remove existing rainwater goods:					
		.01 Eaves gutters	m	100.0			
		.02 Down pipes	m	60.0			
200.06		Rehabilitation:					
	BA.12	.01 Roof rehabilitation	m2	800.0			
	BA.13	.02 Supply and install additional fixing screws, etc.	number	600.0			
	BA.16	.03 Prepare existing galvanised or previously painted roof sheeting and paint with a polyurethane coating system as per technical specification BA 03.02	m2	800.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	BA.17	.04 Replace missing or broken roof tiles similar to existing	number	70.0			
200.07	BC.02.01	Approved waterproofing systems/Miscellaneous Items					
		.01 Items measured by square metre:					
		'.01 Pure acrylic emulsion waterproofing paint with polyester membrane or glass-fibre tissue waterproofing sealing system.To flat concrete roofs including concrete fillets and up stand beams	m2	400.0			
201		BB: CARPENTRY					
		NEW WORK					
201.01	BB.02	Ceilings:					
		.01 Gypsum board with metal H-profile jointing strips:					
		.01 6,4 mm ceilings	m2	320.0			
		.02 Fibre cement with metal H-profile jointing strips:					
		.01 6 mm ceilings	m2	220.0			
		.02 Extra over 6,4 mm ceiling for trap door with framing	m2	20.0			
		.03 Gypsum cornices:					
		'.04 76 mm gypsum coved cornices	m	160.0			
		ALTERATION WORK					
201.02	BB.04	Alterations and repairs to existing structures:					
		.01 Remove:					
		.01 Soft board, plaster board or fibre cement ceiling boards including cornices, cover and jointing strips	m2	300.0			
		.02 76 mm gypsum coved cornices	m2	69.0			
		.02 Re-align and re-fix:					
		.01 Soft board, plaster board or fibre cement ceiling boards including cornices, cover and jointing strips	m2	300.0			
		.02 76 mm gypsum coved cornices	m	69.0			
202	SABS1200	CONCRETE STRUCTURAL					
	SANS 1200 DA	EARTHWORKS (SMALL WORKS)					
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
202.01	8.3	SCHEDULED ITEMS					
	8.3.2	.01 Excavate for restricted foundation, footings and trenches in all materials and use for backfill or embankment or dispose.	m3	15.0			
202.02		.02 Break up, hack of and remove existing concrete	m3	15.0			
	8.3.4	.03 Importing, placing and compacting approved G6 material from commercial sources or from borrow pits to 95% MOD AASHTO.	m3	15.0			
	SANS 1200 G	CONCRETE (STRUCTURAL)					
	8.4	SCHEDULED CONCRETE ITEMS					
202.03	8.4.3	Strength concrete:					
		.01 Class 15/13 MPa concrete in blinding layers	m3	8.0			
		.02 Class 20/19 MPa concrete in aprons, including formwork and finishing	m3	8.0			
		.03 Class 25/19 MPa concrete in walls	m3	8.0			
		.04 Class 30/19 MPa concrete in walls	m3	8.0			
		.05 Class 30/19 MPa concrete in floors	m3	8.0			
	SANS 1200 G	SCHEDULED FORMWORK ITEMS					
202.04		Smooth					
	8.2.2	.01 Walls	m	40.0			
	8.2.2	.02 Suspended slabs not exceeding 2m height	m	40.0			
202.05		Narrow Widths not exceeding 200mm					
	8.2.5	.01 Floors and walls	m	40.0			
202.06		Box out holes/Form Voids					
	8.2.6	.01 Box out hole 240mm x 200mm in walls	No	4.0			
	8.2.6	.02 Box out hole 800mm x 800mm in suspended slab	No	6.0			
202.07		Box out small circular area not exceeding 200mm dia.					
	8.2.6	.01 Walls	No	8.0			
202.08	8.4.4	Uniformed surface finishes:					
		.01 Wood float finish to top of suspended slab	m2	20.0			
		.02 Steel float finish to floor	m2	20.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SANS 1200 G	SCHEDULED REINFORCEMENT ITEMS					
202.09		High-tensile steel welded mesh and steel bars:					
202.09	8.3.2	.01 Ref No 193 mesh in concrete	m2	56.0			
	8.3.2	.02 Ref No 245 mesh in concrete	m2	46.0			
	8.3.1	.03 Y12 high tensile steel bars	kg	120.0			
	8.3.1	.04 R8 Mild steel bars	kg	40.0			
202.10		OPERATIONAL DAMAGES ON STRUCTURAL AND BUILDING WORKS					
		Allow for provision for Operational damages on structural and building works	PC Sum			1,500,000	00
203		BD: WALLS					
203.01	BD.02	Wall Panelling:					
		.01 Supply, delivery and installation of 12mm thick fibre cement wall panelling, jointing and cover strips similar to existing	m2	30.0			
		.02 Supply, delivery and installation of 12mm thick plywood wall panelling, jointing and cover strips similar to existing	m2	30.0			
		BUILDING WORK					
203.02	BD.01	Doors and windows:					
		.01 Steel door frames:					
		.01 1,6 mm thick pressed steel door frame for door size 813 mm x 2 032 mm high suitable for 230 mm wall	number	5.0			
		.02 1,6 mm thick pressed steel door frame for door size 813 mm x 2 032 mm high suitable for 115 mm wall	number	5.0			
		.03 CHROMADEK steel roll up door withh frame and locking device for 2400 mm x 2135 mm high opening in 230 mm walls	number	3.0			
		.02 'Wooden door frames					
		.01 10 mm thick Meranti door frame for door size 813 mm x 2 032 mm high suitable for 230 mm wall	number	6.0			
203.02	BD.01	.02' 10 mm thick Meranti door frame for door size 813 mm x 2 032 mm high suitable for 115 mm wall	number	6.0			
		'.03 10 mm thick Meranti door frame for door size 1500 mm x 2 032 mm high suitable for 115 mm wall	number	5.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
203.03	BD.03	Joinery: .01 Items measured by number: Solid laminated door, 40 mm thick x 813 mm wide x 2 032 mm high with Meranti veneer both sides	number	8.0			
203.03	BD.03	.02 Semi-solid core flush panel door, 40 mm thick x 813 mm wide x 2032 mm high with Meranti veneer both sides	number	7.0			
		'.03 Framed, ledged and braced batten hardwood door, 40 mm thick x 813 mm wide x 2 032 mm high with splayed weather board	number	3.0			
203.04	BD.04	Ironmongery, steelwork, glass, wall finishing's, etc.: .01 Items measured by number:					
		.01 Cupboard pull handles	number	12.0			
		.02 Standard brass peg and stay to residential steel windows	number	15.0			
		.03 Standard brass sliding stay to residential steel windows	number	13.0			
		.04 Residential type steel window handle	number	13.0			
		.05 100 mm brass barrel bolt	number	5.0			
		.06 Cupboard door lockset	number	10.0			
		.07 Four lever mortice lockset with one pair handles chrome type B3081, two keys, back plates and striking plate	number	20.0			
		Four lever mortice lockset with one pair anodised aluminium handles type B3084, two keys, back plates and striking plate	number	10.0			
		Four lever mortice lockset with one pair anodised aluminium handles and back plate type B3085, two keys, back plates and striking plate	number	15.0			
		Cylinder lever lockset with one pair handles chrome type B3084, two keys, back plates and striking plate	number	10.0			
		Indicator bolt with one pair anodised aluminium handles type B3084, display, back plates and striking plate	number	8.0			
203.04	BD.04	Facility indicator bolt for disabled facilities with one pair anodised aluminium handles type B3634, display, back plates and striking plate	number	4.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Anodised Aluminium door handles type B3084	number	5.0			
		Striking plate for single door	number	5.0			
		6mm thick mirror glass 450mm x 300mm wide	number	5.0			
		Washing line with 2 fully galvanised posts and stays, 5m apart and 4 plastic coated washing lines complete with straining bolts concrete base, etc.	number	4.0			
		Stainless Steel single toilet tissue holder	number	8.0			
		Stainless Steel soap dish	number	8.0			
		Aluminium weather strips	number	15.0			
		Rubber door stops	number	30.0			
		150mm Natural Anodised Aluminium disabled sign type B2312 or similar approved	number	2.0			
		150mm Natural Anodised Aluminium male sign type B2313 or similar approved	number	2.0			
		150mm Natural Anodised Aluminium female sign type B2314 or similar approved	number	2.0			
		150mm Natural Anodised Aluminium no entry or exit sign type B2315 or similar approved	number	2.0			
		175 mm high Aluminium number signage to be securely fitted to external walls at residential buildings and commercial buildings	number	2.0			
203.04	BD.04	Standard arm door closer, with adjustable closing speed, adjustable hydraulic latch action, suitable for doors up 1100mm	number	5.0			
		Natural Anodized Aluminium Pivot shower door with range of up 1050mm wide x 1800mm high	number	7.0			
		0.26 Aluminium sliding Shower door "TRI-GLIDE" with range of up 1050 mm wide x 1800 mm high	number	3.0			
		.02 Burglar Bars consisting of 12mm thick steel rods, burglar bar type BB25 or similar approved, welded into one window opening on site per frame as stated below					
		.01 Window size 949mm high x 1511mm wide	number	5.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.02 Window size 949mm high x 533 mm wide	number	5.0			
		.03 Standard wooden cupboards					
		.01 Double door wooden cupboard 1188mm wide x 2400mm high x 564mm deep, consisting of 4 shelves, 22mm brace, coat rail, one division, floor and fascia with OAK finish	number	11.0			
		.02 Supply and install cabinet for a counter as per drawing including stainless steel fittings and footings to match existing finishing	number	11.0			
		.04 Items measured by linear metre:					
		Silicone sealant in 6 mm contact joint between sanitary fittings and wall finishes	m	150.0			
		Polyurethane/Polysulphide sealant in 12 mm expansion joint in face brick walls	m	100.0			
		Putty in patchwork to steel sashes	m	110.0			
203.04	BD.04	.04 Regular duty double curtain track including gliders, hangers, brackets, stopped ends, etc.	m	41.0			
		.05 Anti-slip rubber stair nosing strips	m	100.0			
		.06 230mm wide face brick roller course Horizon Satin -FBS or similar approved	m	40.0			
		.05 Items measured by area:					
		6mm thick white glazed wall tiles similar to existing walls tiles in patchwork	m2	80.0			
		4 mm clear float glass to steel sashes with putty	m2	46.0			
		4 mm obscure glass to steel sashes with putty	m2	36.0			
		115 mm thick brick walls	m2	20.0			
		230 mm thick brick walls	m2	20.0			
		230mm thick face brick walls Buff Satin - FBS or similar approved	m2	20.0			
		Internal cement plaster to walls	m2	100.0			
		External cement plaster to walls	m2	120.0			
		6mm clear float laminated glass	m2	20.0			
		ALTERATION WORK					
203.05	BD.05	Alterations and repairs to existing structures:					
		.01 Repair and re-fix:					
		Single doors	number	28.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Double doors	number	20.0			
		Window frames	number	20.0			
		Door frames	number	20.0			
		Aluminium or steel Fly screen doors	number	10.0			
203.05	BD.05	Tip up single garage door including servicing opening mechanisms, locks, etc.	number	8.0			
		Aluminium sliding Shower door	number	10.0			
		.02 Remove:					
		Timber single door	number	20.0			
		Timber double door	number	20.0			
		Cupboard lockset	number	20.0			
		Mortice lockset with handles	number	30.0			
		Peg and stay to residential steel window	number	18.0			
		Sliding stay to residential steel window	number	18.0			
		Residential type steel window handle	number	18.0			
		Regular duty double curtain track including gliders, hangers, brackets, stopped ends, etc.	m	16.0			
		Anti-slip rubber stair nosing strips	m	9.0			
		.03 Break out/hack up/demolish and remove:					
		Half brick walls	m^2	25.0			
		One brick walls	m^2	100.0			
		External plaster to walls	m2	45.0			
		Internal plaster to walls	m2	45.0			
		6 mm thick glazed ceramic wall tiles including cement dagha bed	m2	20.0			
		Damaged sections of putty in steel sashes	m	36.0			
		4 mm clear float glass to steel sashes with putty	m2	4.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
203.05	BD.05	.03 4 mm obscure glass to steel sashes with putty	m2	4.0			
		.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):					
		Tip up garage door with frame size 2 400 mm x 2 135 mm high from 230 mm wall	number	5.0			
		1,6 mm thick pressed steel door frame for door size 813 mm x 2 032 mm high suitable for 230 mm wall	number	5.0			
		Steel window frames	number	2.0			
		.05 Clean existing surfaces:					
		White glazed tiles to walls including cleaning and refilling of joints	m2	150.0			
		Removal of loose tile surfaces including preparation of existing concrete surfaces and re-installation of tiles with grout work	m2	100.0			
		.06 Repair and seal:					
		Crack in plastered wall	m	200.0			
		Crack in face brick wall	m	200.0			
204		BE: FLOORS					
	SANS 1200 DA	EARTHWORKS (SMALL WORKS)					
	8.3	SCHEDULED ITEMS					
204.01	8.3.2	Restricted excavation:					
		.01 Excavate for trenches, footings and foundations in all materials and use for backfill or embankment or dispose	m3	10.0			
		BUILDING WORK					
204.02	BE.01	Floor screeds:					
		.01 35 mm thick granolithic screed finish	m2	120.0			
204.03	BE.02	Joinery:					
		.01 Items measured by linear metre:					
		19 mm x 76 mm hardwood skirting with quadrant bead	m	300.0			
		75mm x 10 mm Ceramic floor tiles in skirtings	m	300.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
204.04	BE.03	Floor tiling and finishes, etc.:					
		.01 Items measured by area:					
		250 micron damp proofing under solid floors	m2	400.0			
		6mm thick mosaic floor tiles as approved by Engineer 410 x410mm	m2	400.0			
		410 mm x 410 mm x 6 mm Ceramic floor tiles	m2	400.0			
		Pavelite or equal approved skim coat to receive vinyl floor tiles	m2	400.0			
		2,5 mm thick semi-flexible vinyl floor tiles	m2	400.0			
		ALTERATION WORK					
204.05	BE.04	Alterations and repairs to existing structures:					
		.01 Remove:					
		Vinyl floor tiles	m2	400.0			
		Hardwood skirting with quadrant bead	m	400.0			
		.02 Break out/hack up and remove:					
		Cement plaster screed on floors	m2	400.0			
		Ceramic tiles to floors in patches	m2	200.0			
204.02	BE.04	.03 Cleaning and sealing of floor surfaces					
		Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m2	400.0			
		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					
		0.02 Wood block flooring	m2	5.0			
205		BH: FITTINGS					
205.01	BH.01	Steelwork and joinery:					
	BH.02						
		.01 Items measured by number:					
	BH.01	.01 'Standard approved hardwood veneered particle board kitchen cupboard doors, drawers and ironmongery and fixing to existing kitchen cupboards:					
		.01 Kitchen cupboard door	number	10.0			
		.02 Kitchen cupboard drawer	number	10.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
	BH.02	.02 Cupboard ironmongery 0.8mm thick steel baked enamel with 32mm Formica tops					
		.01 Hinge for kitchen cupboard door	number	10.0			
		.02 Kitchen cupboard pull handles	number	10.0			
		.03 Wall unit size 1 500 mm x 300 mm x 580 mm high with three doors and one shelf	number	5.0			
		.04 Wall unit size 1 800 mm x 300 mm x 580 mm high with four doors and one shelf	number	5.0			
		.04 Base unit size 1 500 mm x 533 mm x 865 mm high with three doors, three drawers and one shelf	number	5.0			
		Base unit size 1 800 mm x 533 mm x 865 mm high with four doors, four drawers and one shelf	number	5.0			
		.05 Base double bowl sink unit size 1500 mm x 533 mm x 865 mm high with three doors, and one shelf	number	5.0			
		.06 Base double bowl sink unit size 1300 mm x 533 mm x 865 mm high with three doors, and one shelf	number	1.0			
205.01	BH.01	.02 Items measured by linear metre:					
		.01 32 mm chipboard with "Formica" laminated 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	m	50.0			
		.02 32 mm x 1,2 mm "Formica" veneered edge strips	m	50.0			
	BH.01	.02 '32 mm Meranti counter and profiled edges where so described:					
		.01 Work top 600 mm wide with profiled front edge	m	30.0			
		ALTERATION WORK					
205.02	BH.03	Alterations and repairs to existing fittings:					
		.01 Service, repair and re-fix kitchen cupboards as per Project Specification BH 03.01.02:					
		.01 Kitchen cupboard door	number	10.0			
		.02 Kitchen cupboard drawer including sliders	number	10.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.02 Removal of existing steel or wooden kitchen cupboards					
		.01 Sink unit up to 2000mm long	number	10.0			
		.02 Base unit up to 2000mm long	number	10.0			
		.03 Wall unit up to 2000mm long	number	10.0			
206	BJ.02	PREVIOUSLY PAINTED SURFACES:					
206.01	BJ.02	Paint to previously painted surfaces:					
		.01 Concrete surfaces:					
		.01 Alkali resistant solvent based (modified alkyd) stoep paint:					
		.01 Floors	m²	100.0			
		.02 Window sills, etc.	m²	50.0			
		.02 Plaster surfaces:					
		Interior quality acrylic emulsion paint with smooth sheen appeal:					
		.01 Walls residential areas	m2	8,500.0			
		.02 Walls operational areas	m2	3,500.0			
		Exterior quality pure acrylic emulsion paint with Teflon:					
		.01 Walls and piers residential areas	m2	8,500.0			
		.02 Walls and piers operational areas	m2	3,500.0			
		.03 Ceiling					
		.01 Buildings in residential areas	m2	3,000.0			
		.02 Buildings in operational areas	m2	1,510.0			
		.03 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:					
		.01 Walls	m2	1,300.0			
		.02 Ceilings	m2	1,000.0			
		.04 Roofs (Clean and prepare surface and apply 2 coats of quality acrylic emulsion on existing ceiling)					
		.01 Buildings in residential areas - GI sheeting	m2	4,100.0			
		.02 Buildings in residential areas - Concrete tiles	m2	200.0			
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		03 Buildings in operational areas - GI sheeting	m2	2,500.0			
		04 Buildings in operational areas - Concrete tiles	m2	200.0			
		.05 Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint:					
		.01 Walls	m2	3,000.0			
		.02 Ceilings	m2	1,750.0			
		.03 Quarry tile surfaces:					
		.01 Alkali resistant solvent based (modified alkyd) stoep paint:					
		.01 Window sills	m2	60.0			
		.04 Fibre cement surfaces:					
		.01 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:					
		.01 Walls	m2	1,250.0			
206.01	BJ.02	.04 Exterior quality pure acrylic emulsion paint with Teflon:					
		.01 Ceilings and cornices	m2	180.0			
		.02 Walls	m2	750.0			
		'.03 Super universal high gloss enamel paint:					
		.01 Fascias and barge boards	m2	280.0			
		.05 Soft board surfaces:					
		.01 Interior quality super acrylic copolymer PVA paint:					
		.01 Ceilings and cornices	m2	900.0			
		.02 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:					
		.01 Ceilings and cornices	m²	130.0			
		.06 Galvanised steel surfaces:					
		.01 Super universal high gloss enamel paint:					
		.01 Gutters	metre	400.0			
		.02 Rainwater down pipes	metre	300.0			
		.07 Steel surfaces:					
		.01 Super universal high gloss enamel paint:					
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 Residential type glazed windows	m2	150.0			
		.02 Window burglar proofing or mentis expanded metal grid to steel frame in burglar proofing	m2	90.0			
		.03 Doors	m2	90.0			
		.04 Door frames	m2	90.0			
206.01	BJ.02	.05 Security gates	m2	80.0			
		.06 Rails, pipes, etc. not exceeding 50 mm diameter	m	80.0			
		.07 Pipes exceeding 50 mm dia. not exceeding 100 mm dia.	m	10.0			
		.08 Steel structures	m2	40.0			
		.08 Wood surfaces:					
		Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint:					
		.01 Doors	m²	120.0			
		.02 Skirtings and quadrant beads not exceeding 150 mm girth	m	5.0			
		Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint in dark colours:					
		.01 Skirtings and quadrant beads not exceeding 150 mm girth	m	150.0			
		Water resistant polyurethane clear matt varnish:					
		.01 Doors	m2	100.0			
		.02 Cupboard doors	m2	5.0			
		.03 Cupboards, counters, shelving, etc.	m2	50.0			
		.04 Skirtings and quadrant beads not exceeding 150 mm girth	m	5.0			
		Ultra violet light resistant exterior solvent based varnish:					
		.01 Doors	m2	34.0			
		Rust converter application:					
		.01 Strips not exceeding 300 mm girth to steel surfaces of carports	m	20.0			
207		BB : CARPENTRY AND JOINERY FOR ROOFS					
207.01	BB.04	Remove existing joinery items by length:					
Total Carried Forward							

INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Roof timbers	m	60.0			
		Fascias and barge boards	m	80.0			
207.02	BB.01	Supply and install new items measured by length:					
		225 x 10 mm Thick pressed fibre cement fascia, including painting, etc.	m	80.0			
		225 x 10 mm Thick pressed fibre cement barge board, including painting, etc.	m	80.0			
		75 x 50 mm SAP purlins	m	80.0			
		38 x 114 mm Wrought sloping SAP rafters	m	80.0			
207.03	BB.08	Painting of existing members in overhangs:					
		Members with creosote	m	300.0			
		Members with paint	m	200.0			
208	SABS 1200 D	COVERED PARKING AREA					
		BJ : PAINTWORK					
		NEW UNPAINTED SURFACES					
208.01	BJ.01	Paint to new unpainted surfaces:					
		.01 Steel surfaces:					
		.01 High gloss enamel paint:					
208.01.1		.01 I-section columns and rafters	m2	300.0			
208.01.2		.02 Lipped channel purlins	m2	300.0			
208.01.3		.03 Angle section bracing	m2	300.0			
208.01.4		.04 Roof covering sheeting	m2	300.0			
208.01.5		Steel Carports - shade nets					
		.01 Supply erect, and paint of 10.8m x 13.8m carport with shade nets	m2	150.0			
208.01.6		Allow for provision to supply blinds various sizes for selected buildings	PC Sum			20,000	00
		Allow for provision for termite treatment to all residential areas - Groblersbridge and Stockpoort	PC Sum			100,000	00
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS					
300		PLUMBING AND DRAINAGE					
301		GENERAL					
302	PAA 05.01.02	DETAIL WORK					
302.01	PAA.03	Isolation, stripping, dismantling and removal of existing brassware, sanitary ware and piping installations:					
		.01 Water closets:					
		.01 Vitreous china WC pan (cistern type)	number	4.0			
		.02 Vitreous china WC cistern	number	8.0			
		.03 Tailpipe connections to WC, including shut of valve	number	20.0			
		.04 100mm dia. pan connector	number	5.0			
		.05 Toilet seat and cover	number	10.0			
		.02 Wash hand basins					
		'.01 Vitreous china wall-mounted wash hand basin	number	5.0			
		.02 15 mm ø pillar taps	number	5.0			
		.03 15 mm ø pipe connections to pillar taps	number	10.0			
		.04 Rubber flexi p-trap or CP bottle trap	number	10.0			
		.03 Sinks					
		20mm wall mounted taps	number	10.0			
		15mm sink mixer	number	10.0			
		Rubber flexi P-trap or combination trap	number	5.0			
		.04 Showers:					
		CP Shower heads	number	20.0			
		Under tile stop cocks	number	8.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Shower gratings	number	5.0			
		.05 Baths	number	1.0			
302.01	PAA.03	Bath mixer complete with shower head attachment.	number	2.0			
		20mm wall mounted taps					
		.06 External:					
		.01 20mm dia. RB hose bip tap	number	2.0			
302.02	PAA.04	Isolation, stripping, dismantling and removal of existing geyser installations:					
		.01 Isolate strip and remove domestic geyser (100 to 250 litres - electric)	number	10.0			
	PAA.18	.02 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 litters - electric)	number	10.0			
302.03	PAA.05	Supply and installation of sanitary ware and brassware:					
		.01 Water closets:					
		Vitreous china WC wash-down pan with enlarged pedestal.	number	7.0			
		Vitreous china WC cistern - white 9 litters complete with lid and fitments	number	8.0			
		100 mm ø PVC pan connector	number	9.0			
		15 mm ø CP ball-o-stop valve with CP flexi tail pipe to WC cistern	number	20.0			
		Heavy duty white buckalite type toilet seat and cover with CP hinge and spindle	number	10.0			
		.02 Wash hand basins:					
		Vitreous china 520 x 415mm rounded wall mounted wash hand basin - white	number	7.0			
		Flexi rubber P-trap or S-trap	number	10.0			
302.03	PAA.05	CP Bottle trap with 75mm deep re-seal and adjustable telescopic pipe.	number	10.0			
Total Carried Forward							

INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		15 mm ø CP pillar taps SABS 226 Type 1 (BS 5412), JASWIC Listed	number	12.0			
		15 mm ø flexi pipe tailpipe connections to pillar taps including 15mm CP ball-o-stop valve	number	30.0			
		.03 Sinks:					
		CP wall-mounted sink mixer 15 mm ø - SABS 226 Type 1 (BS 5412), JASWIC Listed	number	8.0			
		20mm CP wall-mounted hose bip tap - SABS 226 Type 1 (BS 5412), JASWIC Listed	number	2.0			
		Flexi rubber combination trap for double bowl sink	number	11.0			
		.04 Showers:					
		15mm CP Shower rose 50mmØ with ball joint connector	number	10.0			
		15 mm ø under-tile stop-cocks - SABS 226 Type 1 (BS 5412), JASWIC Listed	number	18.0			
		CP shower grating	number	10.0			
		15mm CP shower arm with fascia plate and male iron connection	number	10.0			
		.05 Baths					
		1800mm x 830mm x 478mm deep Steel enamel bath tub - white similar to existing	number	4.0			
		Rubber flexi bath-trap	number	4.0			
		20 mm ø CP wall mounted taps SABS 226 Type 1 (BS 5412), JASWIC Listed	number	2.0			
302.03	PAA.05	20 mm ø CP pillar taps SABS 226 Type 1 (BS 5412), JASWIC Listed	number	4.0			
		3/4 Bath mixer, CP, wall type with concealed connections adjustable from 138mm to 218mm.	number	1.0			
		3/4" CP Hand shower attachment.	number	1.0			
		.04 Urinal					
		.01 Vitreous chine wall hung urinal with top inlet including fittings.	number	1.0			
		.02 3/4" 'Flushmaster Junior' Urinal Flush valve,CP, exposed type with integral ballostop valve and wall plate	number	2.0			
		.03 CP Bottle trap with 75mm deep re-seal and adjustable telescopic pipe.	number	10.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.04 CP urinal spreader and tail piece	number	2.0			
		.06 External					
		.01 20mm Hose bip tap, rough brass, with BSP hose union - SABS 226 Type 2 (BS 1010), JASWIC Listed	number	2.0			
302.04	PAA.06	Installation of above ground sanitary drainage piping system:					
		.01 uPVC soil and waste pipes:					
		.01 50 mm ø pipe fixed to walls and soffits	m	50.0			
		.02 110mm ø soil pipe fixed to walls and soffits	m	50.0			
		.02 uPVC soil and waste pipe fittings:					
		50 mm dia. access bend 87.5°	number	5.0			
		50mm dia. plain bend 135°	number	5.0			
		50mm junction access heel 87.5°	number	5.0			
		110mm dia. plain bend 135°	number	5.0			
		110mm dia. access bend 87.5°	number	5.0			
		110mm dia. plain bend 90°	number	5.0			
		110mm vent horn bend access heel 95°	number	5.0			
302.05	PAA.06 SANS 1200	Supply and installation of underground sanitary drainage pipes:					
	DB 8.3.2	.01 Pipe trench excavations, bedding and backfilling:					
		Excavate in all materials for pipe trenches to depth of 1100 mm x 600 mm wide	m^3	15.0			
302.05	PAA.06 SANS 1200	Supply river sand for pipe bedding	m^3	10.0			
	DB 8.3.2	Backfilling and compacting to 93% modified AASHTO density with selected material	m^3	10.0			
		.02 PVC-U Solid wall sewer pipes Class 34 - 300 KPA to SABS 791 specifications					
		110 mm dia.	m	150.0			
		.03 uPVC soil and waste pipe fittings					
Total Carried Forward							

INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		0.1 110 mm ø plain bend 87,5°	number	5.0			
		0.2 110 mm ø plain bend 135°	number	5.0			
		0.3 110 mm ø square junction	number	5.0			
		0.4 110 mm ø 45° junction plain	number	5.0			
		0.5 110 mm ø 45° junction access	number	5.0			
		.06 160 mm dia plain bend 87,5°	number	2.0			
		.07 160 mm dia plain bend 135°	number	2.0			
		.08 160 mm dia square junction	number	2.0			
		0.09 160 mm dia 45° junction plain	number	2.0			
		.10 160 mm dia 45° junction access	number	2.0			
		160 mm dia 45° reducing function plain	number	2.0			
		.04 Cleaning eyes:					
		.01 110 mm ø inline cleaning eye, constructed complete with Square inspection eye cast iron cover and frame Type 14A (SANS 558) daylight opening size 265 x 265mm and concrete encasement	number	10.0			
302.06	PAA.07	Supply and installation of domestic water piping installation:					
		.01 Copper piping Class 0 SABS 460 with capillary soldered type joints for cold-water piping installed in voids inclusive of bracketing:					
		.01 22 mm ø including fittings	m	300.0			
		.02 '15 mm ø including fittings	m	150.0			
		.02 Copper piping Class 0 SABS 460 with capillary soldered type joints for hot-water piping installed in voids including bracketing, lagging and cladding:					
302.06	PAA.07	.02 22 mm ø including fittings	No	40.0			
		.02 15 mm ø including fittings	No.	40.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.03 Copper piping Class 0 SABS 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 22 mm ø including fittings	m	40.0			
		.02 15 mm ø including fittings	m	40.0			
		.04 Supply and installation of Class 6 pressure HDPE piping, including fittings, jointing and testing:					
		20 mm ø HDPE pipe, including fittings	m	150.0			
		32 mm ø HDPE pipe, including fittings	m	150.0			
		.05 Replace additional geyser accessories					
		.01 '20 mm ø pressure-reducing valve, including two gate vales and non-return valve set at 400 kPa	number	35.0			
		.06 Water meter stations installed including strainer and one ball-o-stop shut-off valve with galvanised mild steel medium gauge pipe connection 600mm above ground including 500 x 500 concrete 20Mpa base.					
		.01 20 mm ø water meter	number	10.0			
		.02 Replace 20 mm ø shut-off ball-o-stop valve	number	15.0			
		.03 Replace 50mm ø shut-off ball-o-stop valve	number	1.0			
302.07	PAA.08	Supply and installation of domestic geyser installations including two shut-off valves, strainer, galvanised mild steel drip tray if necessary, non-return valve, expansion relief valve, safety valve, drain piping and electrical connection:					
		.01 SANS151 dual 150 litre, 3 kW 600kPA approved geyser	number	15.0			
		02. 100 litre, 2 kW	number	15.0			
		.03 150litre solar geyser	number	2.0			
302.08	PAA.10	Servicing, cleaning and repair of sanitary ware:					
		.01 Water closets:					
		De-staining of WC pan,wash hand basin etc	number	152.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Replace cistern type flushing mechanism with new	number	15.0			
		.02 Wash hand basins					
		.01 De-staining of WHB	number	20.0			
302.09	PAA.11	Servicing, overhauling and cleaning of brassware:					
		.01 Replace washers on brassware with washer kits:					
		15 mm ø CP pillar taps	number	20.0			
		20 mm ø CP pillar taps	number	20.0			
		15 mm ø CP wall-mounted taps	number	20.0			
		20 mm ø CP wall-mounted taps	number	20.0			
		20 mm ø brass hose bib taps	number	20.0			
		20mm under wall stop taps	number	20.0			
		15 mm CP sink mixers	number	20.0			
302.1	PAA.12	Servicing and repair of water, drainage and fire water pipe installations:					
		.01 Servicing and repair of drainage installations:					
		Unblock and clean pipework including fittings, 50 mm ø pipe	m	50.0			
		Unblock and clean pipework including fittings,100 mm ø pipe	m	100.0			
		Unblock and clean gullies	number	15.0			
		Replace damaged gully with pre-cast concrete gully	number	5.0			
		Replace broken or damaged Gully P-traps	number	10.0			
		Replace missing or broken round cast iron gully gratings 100mm - 300mm diameter	number	5.0			
		Replace missing or broken square cast iron gully gratings 250mm x 250mm wide	number	5.0			
		Replace missing or broken vent valve for air vent	number	5.0			
Total Carried Forward							

INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Replace missing or broken cast iron inspection eye cover and frame only SABS 558 Type 14A in 500 x 500m concrete encasement	number	5.0			
302.11	PAA.13	Servicing, cleaning and repair of domestic geysers and water pumps at Groblersbridge and Stockpoort operational and residential area:					
		.01 100 - 250 litre electric geyser					
		Service of geysers and water pumps at Groblersbridge and Stockpoort operational and residential areas:					
		Service Non return valve	number	30.0			
		Service expansion relief valves	number	30.0			
		Service ball valve	number	70.0			
		Service element	number	83.0			
		Service drain cock	number	70.0			
		Service thermostat	number	70.0			
		Service copper pipe	m	210.0			
		Service galvanised pipe	m	210.0			
		Service seals	number	140.0			
		Service bearings	number	10.0			
		Service shaft	number	10.0			
		Service motor 1.1KW	number	1.0			
		Service motor 0.75KW	number	1.0			
		Service 0.75kW water pump	number	1.0			
		Service 1.1kW Electric jockey pump	number	1.0			
302.11a	PAA.13a	Replace of geysers and water pumps at Groblersbridge and Stockpoort operational and residential areas:					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Replace Non return valve	number	30.0			
		Replace expansion relief valves	number	30.0			
		Replace ball valve	number	70.0			
		Replace element	number	83.0			
		Replace drain cock	number	70.0			
		Replace thermostat	number	70.0			
		Replace copper pipe	m	210.0			
		Replace galvanised pipe	m	210.0			
		Replace seals	number	140.0			
		Replace bearings	number	10.0			
		Replace shaft	number	10.0			
		Replace motor 1.1KW	number	1.0			
		Replace motor 0.75KW	number	1.0			
		Replace 0.75kW water pump	number	1.0			
		Replace 1.1kW Electric jockey pump	number	1.0			
		NEW KITCHEN INSTALLATIONS					
		Double-Bowl Powder Coated Steel Kitchen Units 1800 x 1000	No.	5.0			
		Hyrdroboil					
		5L Hydroboil	No.	2.0			
303		SEWERAGE NETWORKS					
303.01	CF.01	Sewerage networks					
	CF.01.01	.01 Repair of existing pipelines vaious size 63mm -110mm	m	25.0			
	CF.01.02	.02 Provision of materials for repair					
Total Carried Forward							

INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		PVC-U Solid wall sewer pipes Class 34 - 300 KPA to SABS 791 specifications, including sockets					
		110 mm dia.	m	30.0			
		160 mm dia.	m	20.0			
		PVC-U Solid wall sewer fittings to SABS 791 specifications					
		110 mm dia. single sockets	No	5.0			
		110 mm dia. plain 45o bends	No	5.0			
		110 mm dia. plain 90o bends	No	5.0			
		110 mm dia. plain junctions	No	5.0			
		110 mm dia. fabricated long radius bends	No	5.0			
303.02	CF.01.03	Manhole covers and grid inlets:					
		.01 Replacement of manhole covers, grid inlets, etc.					
		SANS 558 Type 2A - Heavy Duty Class Circular Manhole Covers and (Square Base) Frame, Solid Top Type					
		Maximum dimension up to and including 300 mm	No	3.0			
		Maximum dimension 301 mm to 600 mm	No	3.0			
		SANS 558 Type 4A - Medium Duty Class Circular Manhole Covers and Frame, Single Steel Type					
		Maximum dimension up to and including 300 mm	No	1.0			
303.02	CF.01.03	New pre-cast concrete manhole up to 1.2m deep, excl. cover and frame	No	1.0			
		New pre-cast concrete manhole up to 2.4 m deep, excluding cover and frame	number	1.0			
		SANS 558 Type 14A - Square inspection eye cast iron cover and frame daylight opening size 265 x 265mm	number	1.0			
		.02 Manholes and inspection chambers					
		New pre-cast concrete manhole up to 1.2m deep, excl. cover and frame	number	1.0			
		New pre-cast concrete manhole up to 2.4m deep, excl. cover and frame	number	1.0			
		New pre-cast concrete manhole up to 3.6m deep, excl. cover and frame	number	1.0			
303.03	CF.02	Cleaning of sewerage network					
Total Carried Forward							

INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 Mechanical cleaning of sewer pipes and structures with internal diameters of					
		.01 Up to 250 mm	m	100.0			
		Tests and inspections	m	100.0			
		Pressure testing of pipelines	m	100.0			
303.04	EG 06.01	Cleaning out, inspect and repair septic tanks					
		.01 Cleaning,pumping out septic tanks and dispose of contents off-site at approved dumping site (to be measured per load of 10 000litres)	number	60.0			
303.05		Manhole covers and grid inlets:					
	CF.01.03	.01 Replacement of manhole covers, grid inlets, etc.					
		SABS 558 Type 2A - Heavy Duty Class Circular Manhole Covers and (Square Base) Frame, Solid Top Type					
		Maximum dimension up to and including 300 mm	number	1.0			
		Maximum dimension 301 mm to 1000 mm	number	1.0			
	CF.01.04	.02 Manholes and inspection chambers					
		New pre-cast concrete manhole up to 1.2m deep, including pre-cast cover and frame	number	1.0			
304		DRINKING FOUNTAINS					
304.01		Supply and install drinking fountain complete with base, fibreglass basin and drinking fountain pillar cock with adjustable flow nozzle	number	1.0			
		.01 15mm BSP male Brass drinking fountain pillar cock, with adjustable nozzle flow control, hygienic protective plate	number	1.0			
Total Carried Forward To Summary							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS					
		BUILDING ELECTRICAL REPAIR WORK					
400	RAB.01	DISTRIBUTION BOARDS					
400.01	RAB.01.01	Service distribution board:					
		01 Surface mounted DB(+/-650× 400mm)	number	15.0			
		02 Flush mounted DB(+/-400× 500mm)	number	15.0			
		03 Domestic single phase DB(+/-400× 600mm)	number	14.0			
		.04 Surface mounted DB(+/- 400 x 300mm)	number	10.0			
		.05 Flush mounted DB(+/- 360 x 380mm)	number	6.0			
		.06 Flush mounted DB (+/- 600 x 650mm)	number	10.0			
		.07 Flush mounted DB (+/- 300 x 300mm)	number	10.0			
		.08 Flush mounted DB (+/- 300 x 500mm)	number	8.0			
		.09 Flush mounted DB (+/- 600 x 600mm)	number	10.0			
		.10 Domestic single phase(+/- 300 x 450mm)	number	8.0			
		.11 Surface mounted DB(+/- 330 x 500mm)	number	8.0			
		.12 Flush mounted DB (+/- 330 x 500mm)	number	8.0			
		.13 Flush mounted DB (+/- 400 x 400mm)	number	8.0			
		.14 Flush mounted DB (+/- 400 x 500mm)	number	8.0			
		.15 Floorstanding D.B Groblersbridge	number	12.0			
		.16 Floorstanding D.B. Stockpoort	number	8.0			
		.18 Surface Mounted OPS D.B Groblersbridge	number	8.0			
		.19 Surface Mounted OPS D.B Stockpoort	number	8.0			
		Replace distribution board:					
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.01 Surface mounted DB 12 Way with doors	number	4.0			
		.02 Surface mounted DB 24 Way with doors	number	4.0			
	RAB.01.03	Supply and installation of circuit					
		breakers (SABS approved):					
		10-40A, 6KA single pole	number	10.0			
		40-60A, 6kA single pole	number	10.0			
		10-40A, 6kA double pole	number	6.0			
		10-40A, 6kA tripple pole	number	6.0			
		05 40-80A, 6kA tripple pole	number	6.0			
		.06 80-100A, 6kA tripple pole	number	6.0			
		.07 80-100A 15kA tripple pole	number	6.0			
		.08 100-150A 15kA tripple pole	number	6.0			
		LIGHTING INSTALLATION					
		Re- lamp luminaire					
		58W Fluorescent	number	20.0			
		54W T5 Fluorescent	number	20.0			
		36W Fluorescent	number	20.0			
		7W CF Lamps	number	20.0			
		9W CF Lamps	number	20.0			
		11W CF Lamps	number	20.0			
		18W CF Lamps	number	20.0			
		26W CF Lamps	number	20.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		70W HPS lamps	number	20.0			
		250W HPS lamps	number	20.0			
		Service Luminaire					
		Type A: 2x 58W open channel fluorescent luminaire	number	180.0			
		Type A1: 1x 58W open channel fluorescent luminaire	number	60.0			
		Type A2: 2x 58W open channel fluorescent luminaire with wings	number	8.0			
		Type B: 2x 3W open channel fluorescent luminaire	number	56.0			
		Type B1: 1x 36W open channel fluorescent luminaire	number	30.0			
		Type C1: 3x 36W recessed fluorescent luminaire with LLB louvres	number	15.0			
		Type F: 4x 54W megabay fluorescent luminaire	number	30.0			
		Type J: 1x 18W rectangular bulkhead luminaire	number	5.0			
		Type K: 2x 9W round bulkhead luminaire	number	30.0			
		Type L: 2x 18W round bulkhead luminaire	number	30.0			
		Type M: 1x 11W bowl type luminaire with opal glass diffuser	number	40.0			
		Type N: 1 x 9W cheese Type bulkhead luminaire	number	30.0			
		Type R: Flashing red beacon light with siren	number	2.0			
		Type S: 1x 70W bulkhead luminaire with clear diffuser	number	40.0			
		Type V: 1x 250W rectangular low bay downlight luminaire	number	10.0			
		Replace luminaire with more energy efficient luminaires of similar appearance					
		Type A: 2x 58W open channel fluorescent luminaire- replace with 1x 40W LED fitting equivalent	number	10.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Type A1: 1x 58W open channel fluorescent luminaire- replace with 1x 40W LED fitting equivalent	number	5.0			
		Type A2: 2x 58W open channel fluorescent luminaire with wings- replace with 1x 40W LED fitting equivalent	number	2.0			
		Type B: 2x 36W open channel fluorescent luminaire- replace with 1x 20W LED fitting equivalent	number	10.0			
		Type B1: 1x 36W open channel fluorescent luminaire- replace with 1x 20W LED fitting	number	5.0			
		Type C1:3x 36W recessed fluorescent luminaire with LLB louvres - replace with 1x 80W LED panel fitting	number	5.0			
		Type K: 2x 9W round bulkheads luminaire- replace with LED fitting	number	2.0			
		Type L: 2x 18W round bulkhead luminaire- replace with LED fitting	number	2.0			
		Type M: 1x 11W bowl type luminaire with opal glass diffuser- replace with LED fitting	number	2.0			
		Type N: 1x 9W cheese type bulkhead luminaire- replace with LED fitting	number	2.0			
		Type S: 1x 70W bulkhead luminaire with clear diffuser- replace with LED fitting	number	10.0			
		Type V: 1x 250W rectangular low bay downlight luminaire- replace with LED fitting	number	10.0			
		Insect Exterminator	number	2.0			
		Replace luminaire diffuser or lens					
		Type L: 2 x 18W round bulkhead luminaire	number	10.0			
		Type M: 1 x 11W bowl type luminaire with opal glass diffuser	number	5.0			
		Type S: 1 x 70W bulkhead luminaire with clear diffuser	number	10.0			
		Service light switch	number	150.0			
		Replace light switch	number	150.0			
		16A, single lever, one way	number	10.0			
		16A, two lever, one way	number	15.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		16A, single lever, one way IP55 rotary type	number	2.0			
		Replace photocell	number	2.0			
		Plug-in type	number	2.0			
		16A unit with bracket	number	2.0			
		POWER OUTLETS					
		Service socket outlet					
		16A, single SSO	number	163.0			
		16A, double SSO	number	100.0			
		16A, single SSO, IP 55	number	20.0			
		10A, UK single SSO	number	60.0			
		32A,3Ø	number	10.0			
		16A, dedicated single SSO	number	70.0			
		Replace socket outlet					
		16A, single SSO	number	10.0			
		16A, double SSO	number	15.0			
		16A, single SSO IP 55	number	5.0			
		10A, UK single SSO	number	10.0			
		16A, dedicated single SSO	number	10.0			
		Service Isolators					
		60A 3 pole	number	10.0			
		30A 3 pole	number	10.0			
		20A 2 pole	number	130.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Replace isolators					
		60A 3 pole	number	20.0			
		30A 3 pole	number	6.0			
		20A 2 pole	number	10.0			
		Provide connection for fixed equipment via galvanized sprague and 3 x 6mm² wiring e.g. Aircon unit	number	10.0			
		Replace plug tops					
		3-pin single phase	number	20.0			
		WIRE WAYS, CONDUITS AND ACCESSORIES					
		Replace conduit					
		20 mm Ø PVC	m	30.0			
		25 mm Ø PVC	m	30.0			
		20 mm Ø Galvanised steel	m	30.0			
		25 mm Ø Galvanised steel	m	30.0			
		25 mm Ø hospital saddles	number	30.0			
		20 mm Ø Hospital saddles	number	20.0			
		Replace wiring channel					
		O-line OL 9000, 127 x 76 mm	m	50.0			
		O-line OL 8000, 76 x 76 mm	m	50.0			
		Legrand white PVC 76 x 41 mm	m	50.0			
		Replace power skirting					
		3 tier powder coated galvanised steel	m	50.0			
		Supply and install pratley boxes					
		83 mm Ø - back entry	number	5.0			
		Supply and install draw boxes					
		50 x 100mm galvanised steel	number	5.0			
		100 x 100mm galvanised steel	number	5.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		50 x 100 PVC	number	5.0			
		100 x 100 PVC	number	5.0			
		Supply and install draw box cover					
		50 x 100mm galvanised steel	number	5.0			
		100 x 100mm galvanised steel	number	5.0			
		EARTHING AND BONDING					
		Earthing inspection, testing and certification by a specialist contractor					
		Gate house and canopy	number	1.0			
		Light vehicle inspection canopy and building	number	1.0			
		Heavy vehicle inspection canopy and building	number	1.0			
		Ablutions blocks	number	1.0			
		Office buildings	number	1.0			
		Generator room	number	1.0			
		Police cells	number	1.0			
		Fuel store	number	1.0			
		Water purification and storage facilities	number	1.0			
		Water pump room	number	1.0			
		Houses	number	1.0			
		Sportsground ablution facilities	number	1.0			
		LIGHTING PROTECTION					
		Supply and install supply electrodes					
		16mm Ø 1.2 m long Cu	number	10.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Provide cad weld joint to 70 mm132	number	10.0			
		Earth building roof structure	number	10.0			
	RAB.01.04	Supply and installation of isolators					
		(SANS approved):					
		20-40A, 6kA double pole	number	8.0			
		50A, 6kA tripple pole	number	8.0			
		60A, 5kA tripple pole	number	8.0			
400.02	RAB.01.05	Supply and install contactors					
		.01 30A, 3 pole	number	8.0			
	RAB.01.06	Supply and install switching timers:					
		01 Electronic QAT-R-Clip in timers	number	8.0			
	RAB.01.07	Supply and install earth leakage units					
		(SANS approved):					
		01 60A, 6kA double pole	number	10.0			
	RAB.01.09	Supply and install surge arrestors:					
		01 1 Pole and Neutral 275V 5kA with indication	number	4.0			
		02 3 Pole and Neutral 275V 5kA with indication	number	4.0			
		LOW VOLTAGE CABLE INSTALLATIONS					
		Replace cabling					
		.01 16mm x 3-core PVC/SWA/PVC Cu	m	30.0			
		.02 10mm x 3-core PVC/SWA/PVC Cu	m	50.0			
		.03 6 mm" x 3-core PVC/SWA/PVC Cu	m	20.0			
		Termination of low voltage cable					
		.01 16 mm x 3-core PVC/SWA/PVC Cu	number	4.0			
		.02 10mm2 x 3-core PVC/SWA/PVC Cu	number	2.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.03 6 mm" x 3-core PVC/SWA/PVC Cu	number	2.0			
		Jointing of cables					
		.01 16 mm-x 4-core PVC/SWAJPVC Cu	number	1.0			
		.02 10 mm" x 3-core PVC/SWAJPVC Cu	number	1.0			
		.03 6 mm" x s-core PVC/SWAJPVC Cu	number	1.0			
	RAB.01.15	Supply and install earth continuity					
		conductor:					
		01 70 mm' BCEW	m	10.0			
		.02 16 mm" BCEW	m	80.0			
		.03 10 mm! BCEW	m	50.0			
		.04 50 mm" aluminium	m	20.0			
400.03	RAB.01.16	Terminate earth continuity conductor:					
		.01 70 mm2 BCEW	number	4.0			
		02 16 mm" BCEW	number	4.0			
		.03 10 mm- BCEW	number	4.0			
		.04 50 mm- aluminium	number	4.0			
		WIRING					
		Replace wiring:					
		.01 2,5 mm' PVC insulated	metre	400.0			
		.02 4 mm' PVC insulated	metre	200.0			
		.03 6 mm' PVC insulated	metre	100.0			
		.04 10 mm' PVC insulated	metre	50.0			
		.05 2,5 mm2BCEW	metre	200.0			
		.06 4 mm2BCEW	metre	100.0			
		07 6mm2BCEW	metre	50.0			
400.04	RAB.05	LIGHTING SYSTEM					
	RAB.02.01	Re-lamp luminaire:					
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 58W Fluorescent	number	150.0			
		.02 36W Fluorescent	number	60.0			
		.03 250W MV Lamp	number	20.0			
		.04 250W HPS Lamp	number	20.0			
		.05 70W HPS Lamp	number	20.0			
		.06 PL9W	number	50.0			
		.07 Energy saver 16W/E27	number	60.0			
		.08 2D16W	number	6.0			
		.09 100W GLS Lamp	number	10.0			
400.05	RAB.02.02	Service luminaire:					
		.01 Type A	number	10.0			
		.02 Type B	number	5.0			
		.03 Type C	number	15.0			
		04 Type D	number	5.0			
		05 Type E	number	1.0			
		.06 Type F	number	8.0			
		.07 Type G	number	3.0			
		.08 Type H	number	2.0			
		09 Type I	number	3.0			
		.10 Type J	number	2.0			
		11 Type K	number	14.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		12 Type L	number	4.0			
		13 Type M	number	1.0			
		.14 Type N	number	6.0			
		.15 Type 0	number	18.0			
		16 Type P	number	1.0			
		.17 Type R	number	8.0			
		18 Type T	number	10.0			
		19 Type U	number	30.0			
		.20 TypeW	number	2.0			
		21 Type X	number	2.0			
		22 Type Z	number	7.0			
		.23 Type AC	number	6.0			
		.24 Type AD	number	1.0			
	RAB.02.03	Replace luminaire:					
		Type A	number	10.0			
		Type B	number	5.0			
		Type C	number	4.0			
		Type D	number	5.0			
		Type F	number	5.0			
402		Type G	number	3.0			
		Type H	number	8.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Type K	number	10.0			
		Type M	number	1.0			
		Type R	number	5.0			
		Type T	number	10.0			
		Type U	number	5.0			
		Type V	number	4.0			
		Type W	number	7.0			
		Type X	number	5.0			
		Type AA	number	4.0			
		Type AB	number	4.0			
		Type AC	number	4.0			
		Supply and installation of internal luminaire components					
		.01 Choke for 36W Fluorescent	number	10.0			
		.02 Choke for 58W Fluorescent	number	5.0			
		.03 Fluorescent starter	number	20.0			
		Ceiling replacement:					
		.01 Luminaire removal and reinstallation	number	3.0			
		1 Service light switch	number	10.0			
402.01	RAB.02.04	Replace light switch:					
		16A, single-lever, one-way Crabtree	number	10.0			
		16A, two-lever, one-way Crabtree	number	10.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		16A, three-lever, one-way Crabtree	number	10.0			
		16A, single-lever, two-way Crabtree	number	10.0			
		16A watertight, robust vandal-proof	number	10.0			
402.02	RAB.02.05	Replace photo-electric switch:					
		.01 16A unit with bracket and mounted in dummy bulkhead fitting	number	10.0			
		Replace lampholder (Ceramic)	number	1.0			
402.03	RAB.02.06	Replace luminaire diffuser or lens:					
		.01 Type F	number	1.0			
		.02 Type H	number	2.0			
		.03 Type K	number	10.0			
		.04 Type T	number	15.0			
		05 Type U	number	5.0			
		.06 Type Z					
402.02	RAB.02.07	Service light switch	number	20.0			
402.03	RAB.03.15	Supply and installation of internal					
		luminaire components :					
		Choke for 36W Fluorescent	number	10.0			
		Choke for 58W Fluorescent	number	10.0			
		Fluorescent starter	number	20.0			
402.04	AB.02.06	Ceilling Replacement					
		Luminaire removal and reinstallation	number	3.0			
402.04	AB.02.09	Replace lampholder(ceramic)	number	2.0			
402.04	RAB.06	POWER OUTLETS					
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	RAB.03.01	Replace socket outlet:					
		16A, single SSO Crabtree	number	15.0			
		16A, double SSO Crabtree	number	10.0			
		16A, dedicated SSO Crabtree	number	10.0			
		6A unswitched socket outlet USO	number	23.0			
402.05		16A, Powerskirting mounted SSO	number	4.0			
		Crabtree					
402.05		Service socket outlet:					
		16A, single SSO	number	10.0			
		16A, double SSO	number	10.0			
		16A, dedicated SSO	number	10.0			
402.06	AB.03.08	Service Insolators					
402.06		60A, 2 pole	number	10.0			
402.06		30A, 2 pole	number	10.0			
402.06	RAB.03.02	Replace isolators:					
		30A, 2 pole with court grip	number	10.0			
		60A, 2 pole	number	10.0			
		30A 2 pole	number	10.0			
		30A 2 pole weatherproof, in ABB					
		YORK BOX : S15	number	6.0			
402.07	RAB.03.03	Replace plug tops:					
		3-pin 16A	number	10.0			
		3-pin square 13A	number	10.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	RAB.03.19	Replace geyser components					
		Replace domestic geyser element	number	5.0			
		Replace geyser thermostat	number	5.0			
402.08	RAB.03.18	Replace domestic stove components					
		170-190 diameter solid plate	number	10.0			
		200-220 diameter solid plate	number	10.0			
		150-160 spiral diameter plate	number	10.0			
		170-190 diameter spiral plate	number	10.0			
		Three heat switch	number	10.0			
		Five/Six heat switch	number	10.0			
		Oven bottom element	number	10.0			
		Oven top element	number	10.0			
402.09	RAB.03.06	Replace connections from isolator to fixed appliances via heavy duty flexible conduit (sprague) and 3 x 4 mm² wiring eg: geyser/stove					
		Stove: 2*6 mm² PVC and 2.5 mm² BCEW	number	10.0			
		Conductors					
		Geyser: 2*4 mm² PVC and 2.5 mm² BCEW	number	10.0			
		Conductrs					
		WIRE WAYS CONDUITS AND ACCESSORIES					
402.1	RAB.03.04	Replace Conduits					
		20 mm dia Galvanised steel	m	50.0			
		25 mm dia Galvanised steel	m	20.0			
		32 mm dia Galvanised steel	m	20.0			
402.11	RAB.03.11	Supply and install outlets(draw) boxes					
		100×50 Galvanised steel	number	5.0			
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		100×100 Galvanised steel	number	5.0			
		50×100 mm white enamel extension box	number	10.0			
		100×100 mm white enamel extension box	number	10.0			
		Circular galvanised box	number	20.0			
402.12	RAB 03.12	Supply and install draw box cover plates (white anamel) to fit					
		To fit 100×50 box	number	5.0			
		To fit 100×100 box	number	5.0			
		Circular 20mm	number	10.0			
402.13	RAB.03.09	Replace power skirting					
		2 lier powder-coated galvanised steel	m	40.0			
402.13	RAB.03.05	Replace wiring channel					
		.01 OL 2000, 41.3 x 41.3 mm	m	20.0			
		.02 OL 9000, 127 x 76 mm	m	6.0			
		.03 White pvc 100 x 76 mm	m	12.0			
		.04 White pvc 40 x 40 mm	m	20.0			
402.14	RAB.03.10	Supply and install Praley boxes					
		.01 83 mm 0 - double entry	number	3.0			
		.02 127 mm 0 - 3 way	number	2.0			
402.14a	RAB.03.10a	Supply and install 4 plate stove with oven and warm drawer similar or equal to existing	number	10.0			
		EARTHING AND BONDING					
		Provide earthing and bonding in all ablution rooms, laundries and kitchens	Sum			21,500	00
		LIGHTNING PROTECTION					
402.15	RAB.04.03	Supply and install earth electrode:					
		.01 16 mm dia 1.2 m long Cu rod and clamp	number	10.0			00
Total Carried Forward							

INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Provide cadweld joint on 70 mm' cable	number	5.0			
		Earth building roof structure	number	5.0			
		Testing of lightning earthing by a specialist contractor	Sum			30,000	00
		Provide Certificate of Compliance	number	5.0			
		CONTROL TRAFFIC LIGHTS					
		Replace malfunctioning control traffic lights at arrival and departure bays including all wiring, sensors and vandal protection at Groblersbridge Port of Entry (CANOPY)	Sum			50,000	00
		BOOM GATES					
		High security traffic barrier consisitng of extruded aluminium tubing powder coated in white with red reflective tape including boom break away system and lockable canbinet powder coated n white with red reflective tape capable of opening during power failures.					
		.01 Complete traffic bariers (Boom Gate) Up to 7 m in width	number	1.0			
		.02 3 - 5 meter alluminium boom pole	number	2.0			
		03 5 - 6 meter alluminium boom pole	number	2.0			
		.04 Boom gate motor	number	2.0			
402.16	RAB.04.04	Provide cadwald joint on 70mm cable	number	4.0			
402.17	RAB.04.05	Earth building roof structures for 2 Ports of Entry	Sum			50,000	00
402.18	RAB.04.02	Testing of lighting earthing by a specialist contractor for 2 Ports of Entry	Sum			50,000	00
402.19	RAB.03.21	Provide Certificate of Compliance for all buildings under installation A3	Sum			50,000	00
402.20	RAB.03.21	Allow for provision for cable ducting in all buildings	Surn			15,000	00
Total Carried Forward To Summary							

INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK					
500		PERIMETER FENCE - 3.0 m DIAMOND/WELDED MESH, TUBULAR STEEL POSTS					
500.01	CC.01	Redress, treating and painting of:					
		.01 Gates:					
		Double gate of up to 6.0m wide	number	5.0			
	CC.05	.02 Tubular posts:					
		110 mm post for 3.0 m high fence	number	60.0			
		75 mm post for 3.0 m high fence	number	60.0			
	CC.05	.03 Stays:					
		65 mm stay for 3.0 m high fence	number	60.0			
	CC.04	.04 Welded mesh:					
		3.0 m welded mesh	m	200.0			
500.02	CC.02	Supply and erection of new fencing material to replace old material:					
		.01 Diamond mesh:					
		3.0 m 2.5mm 50x50mm High diamond mesh	m	600.0			
		3.0 m 2.5mm 25x25mm High welded mesh	m	200.0			
		.02 Tubular posts:	number	80.0			
		75mm tubular post with concrete footing for 3.0 m high fence	number	80.0			
		110mm tubular post with concrete footing for 3.0m high fence	number	80.0			
		.03 65 mm dia. Stay for 3.0 m post	number	80.0			
		.04 Straining wire	m	1,000.0			
500.03	CC.02	.05 Gates in 3.0 m high fences- 6m wide	number	1.0			
500.04	CC.02	.05 Single gate up to 3 m wide	number	1.0			
		.02 Double gate over 8 m and up to 10 m wide	number	2.0			
Total Carried Forward							

INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
501		RESIDENTIAL FENCE - 1,2 m DIAMOND MESH, TUBULAR STEEL POSTS AND STANDARDS					
501.01	CC.04	Redress, treating and painting of:					
		.01 Gates:					
		.01 Single gate of height 1,2 m or less	number	8.0			
		Double gate of height 1,2 m or less	number	2.0			
	CC.05	.02 Tubular posts and standards:					
		.01 1,2 m high fence	number	80.0			
	CC.05	.03 Diamond mesh:					
		1,2 m diamond mesh	m	600.0			
501.02	CC.02	Supply and erection of new fencing material to replace old material:					
		.01 Diamond mesh:					
		.01 1,2 m diamond mesh fence	m	600.0			
	CC.02	.02 110mm tubular post with concrete footing for 1.2m high fence	number	20.0			
		.03 65mm dia. Stay for 1,2 m post	number	20.0			
		.04 Y-standards for 1,2 m high fence	number	20.0			
		.05 Straining wire	m	800.0			
		.06 Gates					
		.01 In 1,2 m high fences					
		.01 single and double gates less than 1,5 m wide	number	4.0			
	CC.02	.06 .02 single and double gates between 1,5 m and 5,0 m wide	number	4.0			
502	CC.03	REPAIR WORK TO FENCES					
		.01 Repair of wire and mesh fences less than 1,3m high	m	100.0			
		.02 Repair of wire and mesh fences between 1,3m and 2,0m high	m	100.0			
		.03 Repair of wire and mesh fences between 2,0m and 3,0m high	m	100.0			
Total Carried Forward							

INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
503		SOLID WASTE MANAGEMENT					
503.01	CG.01	.01 Disposal of litter	m3	60.0			
	CG.07	.02 Overhaul of material for haul in excess of 1 km	m3.km	60.0			
503.02	CG.05	SUPPLY OF WASTE BINS					
		.02 Square black 240 litre waste bins including wheels	No.	10.0			
504		SITE MAINTENANCE					
504.01	COLTO 17.02	.01 Removal and grubbing of large trees and tree stumps:					
		.01 Girth exceeding 1 m up to and including 2 m	No.	6.0			
		.02 Girth exceeding 2 m up to and including 3 m	No.	1.0			
505	CJ.05	SUPPLY OF EQUIPMENT FOR ABLUTIONS AS DESCRIBED IN ITEM CJ.09 OF THE PROJECT SPECIFICATIONS					
	CJ.05.01	.01 Stainless Steel Hand dryer unit with blower output of 450 watt @ 20 000 rpm similar or equal to Excelarator	number	5.0			
	CJ.05.02	.02 Auto digital aerosol dispenser	number	10.0			
	CJ.05.03	.03 Stainless steel toilet paper dispensing units, capable of holding two toilet paper rolls per unit	number	2.0			
	CJ.05.04	.04 Stainless steel she bins	number	9.0			
	CJ.05.05	.05 Stainless steel soap dispenser	number	8.0			
	CJ.05.06	.06 Stainless steel urinal sanitizer	number	3.0			
		2.0 m HIGH SECURITY FENCE (Galfan Class A coated to SANS 10224-2:2003 min 240g/m2)					
		Supply and erection of new fencing material to replace old material:					
		.01 Posts:					
		01 70 x 70 x 6mm Angle Iron Posts, Predrilled holes for fixing panels and Hot dipped Galvanised in accordance with ISO 1461 (MM. 70 microns)	number	1.0			
		.02 Covering plate					
Total Carried Forward							

INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 70 x 6mm Flatiron section, Predrilled countersunk holes for fixing mesh to posts. Hotdipped Galvanised in accordance with ISO 1461 (Min. 70 microns)	number	1.0			
		03 Toprails					
		.01 40mm x 40mm x 3mm Angle Iron, predrilled holes for fixing rails to posts and for fixing top section of mesh to rail. Toprail to be fitted with 32mm high x 2mm thick serrated comb Razor combs to be fillet welded 10mm at every 100mm centres Hotdipped Galvanised in accordance Minimum coating of toprail: 55 microns Minimum coating of serrated comb:	number	1.0			
		.04 Bottomrail					
		01 40mm x 40mm x 3mm Angle Iron, predrilled holes for fixing rails to posts and for fixing bottom section of mesh to rail. Hotdipped Galvanised In accordance with ISO 1461. Minimum coating of bottom rail:	number	1.0			
		.05 Panels - 358 Double Line Wire Single					
		.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: 3050mm Height of panel 1969m Tensile Strenght. 600 - 900N/mm2 Weld strenght 60 - 80% Weight: 9.34kg/m2 Coating Galfan Class A Coated in accordance with SANS 10244-2:2003	number	1.0			
		1.8m PERIMETER FENCE - DIAMOND MESH. TUBULAR STEEL POSTS					
		Redress, treating and painting of					
		01 Gates:					
		01 Single gate of height 1,8 m or less	number	2.0			
		.02 Double gate of height 1,8 m or less	number	2.0			
		.02 Tubular posts					
		.01 1,8 m high fence	number	30.0			
		03 Diamond mesh.					
		.01 1,6 m diamond mesh	m	100.0			
		Supply and erection of new fencing material to replace old material:					
		.01 Diamond mesh					
Total Carried Forward							

INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.01 1,8 m 2.5mm 50x50mm High diamond mesh	m	100.0			
		.02 1,8 m 3.15mm 25x25mm High diamond mesh	m	100.0			
		02 Tubular posts:					
		01 75mm tubular post with concrete footing for 1.8 m high fence	number	10.0			
		.02 110mm tubular post with concrete footing for 1.8m high fence	number	10.0			
		.03 75 mm tubular posts with additional 450 mm overhang at 450 and with concrete footing for 1.8m high fence	number	10.0			
		.04 110 mm tubular posts with additional 450 mm overhang at 450 and with concrete footing for 1.8m high fence	number	10.0			
		.03 65mm dia Stay for 1.8 m post	number	4.0			
		.04 Y-standards for 1,8 m high fence	number	2.0			
		.05 Straining wire	m	50.0			
		06 Barbed wire	m	100.0			
		.07 Barbed tape "Hatwrap", 700 mm dia.	m	5.0			
		08 Gates in 1,8 m high fences					
		02 Double gate between 5.0 m and 10.0m wide	number	2.0			
		RESIDENTIAL FENCE -1,2 m DIAMOND MESH, TUBULAR STEEL POSTS AND					
		Clearing of growth along fence route	m	1,000.0			
		Redress, treating and painting of:					
		.01 Gates					
		.01 Single gate of height 1,2 m or less	number	10.0			
		02 Double gate of height 1,2 m or less	number	5.0			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A5: BULK WATER SUPPLY AND EXTERNAL WATER RECTICULATION CORRECTIVE MAINTENANCE WORKS					
600		BULK WATER SUPPLY AND BOREHOLE EQUIPMENT					
600.01	SANS 1200L 8.2.5	Supply and place pipes, valves, fittings and specials					
		.01 25mm dia. Polycop pipe for measuring equipment strapped to HDPE pipe in borehole	m	200.0			
		.02 50mm dia. GMS distance piece 300mm long flanged both ends	No.	4.0			
		.03 50mm dia. GMS Special T 300 x 640mm flanged ends	No.	4.0			
		.04 50mm - 25mm dia. GMS Special reducer 300mm long for air release valve	No.	4.0			
		.05 50mm dia. GMS Flanged 90o bend	No.	4.0			
		.06 50mm dia. GMS pipe 2000mm long flanged both ends	No.	4.0			
		.07 Purpose made housing for bore holes as per detail A on drawing	No.	4.0			
		.08 Corrosion resistant Pressure gauges for scale 0 – 800 Kpa	No.	4.0			
		.09 50mm to 22mm dia. Adaptor for pressure gauges	No.	4.0			
		.10 22mm Ball-o-stop valves for pressure gauges	No.	4.0			
		.11 22mm GMS BSP T-piece, with GMS BSP nipples at two ends for connection of chlorinator	No.	4.0			
		.12 25mm dia. air release valves	No.	4.0			
		.13 25mm dia. shut off ball-o-stop valve	No.	4.0			
		.14 50mm dia. flanged butterfly non-return valve	No.	4.0			
		.15 50mm dia. flanged CI diaphragm valve	No.	4.0			
		.16 50mm dia. flanged water meter	No.	4.0			
		17 Supply, install and commission rising main pipelines complete with straight coupling					
		.01 50 mm dia. HDPE Class 12	m	500.0			
		.02 63 mm dia. HDPE Class 12	m	500.0			
		03 75 mm dia. HDPE Class 12	m	500.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 Supply, delivery, installation, testing and commissioning of new isolating valves (existing pipeline and valve size to be verified on site before ordering of material).					
		.01 50 mm dia	No.	3.0			
		02 80 mm	No.	1.0			
		.03 110 mm dia.	No.	2.0			
		.02 Supply, delivery, installation, testing and commissioning new non-return valves					
		.01 50 mm	No.	3.0			
		02 80 mm dia	No.	1.0			
		.03 110 mm dia.	No.	2.0			
		03 Supply, delivery, installation, testing and commissioning new water meters					
		.01 50 mm dia	No.	3.0			
		.02 80 mm dia.	No.	1.0			
		Servicing of Valves					
		01 Isolating valves (existing pipeline and valve size to be verified on site before ordering of material).					
		.01 50 mm dia	No.	3.0			
		02 80 mm dia	No.	3.0			
		.02 Non-return valves					
		.01 80 mm dia.	No.	3.0			
		.02 110 mm dia	No.	2.0			
600.01a	SANS 1200L 8.2.5	BOREHOLES					
		01 Pump testing of boreholes	No.	2.0			
		.02 Extra over for Item .01above					
		01 Ground water (Borehole water) sampling, testing and supervision by a competent person	PC Sum	1.0		30,000	00
		02 Compilation of borehole report by a competent person	PC Sum	1.0		30,000	00
		Standby submersible pumping units					
		.01 Supply standby Borehole submersible pumping units for Groblersbridge and Stockpoort Ports	PC Sum	1.0		80,000	00
Total Carried Forward							

INSTALLATION A5: BULK WATER SUPPLY AND EXTERNAL WATER RECTICULATION CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	c
Brought Forward							
		Repair of existing submersible pumping equipment					
		.01 Repair of Borehole submersible pumping units for Groblersbridge and Stockpoort Ports- 1.5kw capacity	PC Sum	1.0		40,000	00
		.02 Repair, Servicing, Testing and Commissioning of New Motor Control Center for Bore Hole with hour meter, stop start, run & trip indication lights, amp meter, volt meter, manual - off - auto selector switch, surge protection and main switch	PC Sum	1.0		30,000	00
		NEW BOREHOLE DRILLING AT GROBLERSBRIDGE					
		01 Borehole siting of successful targets including the following activities;	No	1.0		10,000	00
		02 Borehole Drilling including the following activities;Establishment and de-establishment Drilling 165mm up to 180m per borehole Reaming (200mm) minimum 20m Casing (165mm) minimum 20m Borehole Development (minimum 1 hour) Laboratory samples	PC Sum	1.0		400,000	00
		03 Supply install and commision Borehole submersible pump (Static Head 180m, Flow rate 1l/s, pipe dia 50mm HDPE complete with electric control panel	No	2.0			
		04 Construct Borehole pump house complete with internal pipework (2mx 2.5m x 2.5) palisade panels with IBR sheets)	No	2.0			
		05. Supply and install 25mm2x4 supply cable	m	350.0			
		06. Supply and install bare earth cable	m	350.0			
		07. Supply and install 50mm HDPE Class 12 including excavation , laying, bedding, backfillingand testing	m	350.0			
		08. Allow ancillariy works as on the borehole as specified by the Engineer	PC Sum	1.0		80,000	00
		REFURBISHMENT OF GROBLERSBRIDGE BOREHOLE RIVER NUMBER 2					
		01. Refurbishment of existing borehole river number 2 as specified by the Engineer	PC Sum	1.0		220,000	00
		NEW BOREHOLE DRILLING AT STOCKPOORT					
		01 Borehole siting of successful targets including the following activities;	No	1.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		02 Borehole Drilling including the following activities;Establishment and de-establishment Drilling 165mm up to 180m per borehole Reaming (200mm) minimum 20m Casing (165mm) minimum 20m Borehole Development (minimum 1 hour) Laboratory samples	PC Sum	1.0		400,000	00
		03 Supply install and commision Borehole submersible pump (Static Head 180m, Flow rate 1l/s, pipe dia 50mm HDPE complete with electric control panel	No	2.0			
		04 Construct Borehole pump house (2mx2.5mx 2.5m) complete with internal pipework	No	2.0			
		05. Supply and install 25mm2x4 supply cable	m	350.0			
		06. Supply and install bare earth cable	m	350.0			
		07. Supply and install 50mm HDPE Class 12 including excavation , laying, bedding, backfillingand testing	m	350.0			
		08. Allow ancillariy works as on the borehole as specified by the Engineer	PC Sum	1.0		80,000	00
		GROBLERSBRIDGE WATER PURIFICATION SYSTEMS (HOUSEHOLD)					
		01. Water purification system with 5L pressure tank	PC Sum	1.0		236,000	00
		02.Installation	PC Sum	1.0		65,000	00
		03. 4 sets replacement filters	PC Sum	1.0		145,000	00
		GROBLERSBRIDGE PRE-FILTRATION SYSTEM					
		01. AFM Filtration system	PC Sum	1.0		750,000	00
		02.Softening system	PC Sum	1.0		150,000	00
		03.UV Radiation	PC Sum	1.0		80,000	00
		GROBLERSBRIDGE REVERSE OSMOSIS PLANT REPLACEMENT					
		Supply and install Containerised borehole treatment plant built to deliver 3000l/hr including Pressure pumps,AFM filtration system,water softening-RO,UV Treatment, RO with antiscalant dosing,calicite and chroline vessel, electrical control, measuring equipment and tesing	PC Sum	1.0		2,000,000	00
		STOCKPOORT WATER PURIFICATION SYSTEMS (HOUSEHOLD)					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		01. Water purification system with 5L pressure tank	PC Sum	1.0		145,000	00
		02.Installation	PC Sum	1.0		50,000	00
		03. 4 sets replacement filters	PC Sum	1.0		88,000	00
		STOCKPOORT PRE-FILTRATION SYSTEM					
		01. AFM Filtration system	PC Sum	1.0		280,000	00
		02.Softening system	PC Sum	1.0		200,000	00
		03.UV Radiation	PC Sum	1.0		80,000	00
		STOCKPOORT REVERSE OSMOSIS PLANT REPLACEMENT					
		Supply and install Containerised borehole treatment plant built to deliver 1500l/hr including Pressure pumps,AFM filtration system,water softening-RO,UV Treatment, RO with antiscalant dosing,calicite and chroline vessel, electrical control, measuring equipment and tesing	PC Sum	1.0		1,000,000	00
		WATER TREATMENT WORKS AT GROBLERSBRIDGE AND STOCKPOORT					
		General: Pump and Equipment at Groblersbridge and Stockpoort					
		Detailed inspection and testing of existing components	PC Sum	1.0		25,000	00
		Repair of existing Pumping Equipment, bearing, seals and control panels (ksb 65-250 pump) and 55kw control panel)	No.	8.0			
		Supply new Pumps and electrical motors at purification works (Spec BHS 1.1 kW) and commissioning. As per engineer instruction	No.	8.0			
		Supply and install new AFM filter membranes	No.	12.0			
		Appoint water specialist to investigate portable water parameters to comply to WHO water standards	PC Sum	1.0		700,000	00
601	CE	BULK WATER SUPPLY					
601.01	CE.01.02	Provision of materials for repair					
		.01 Supply, delivery, installation, testing and commissioning of new isolating valves (existing pipeline and valve size to be verified on site before ordering of material):					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 50 mm dia.	No.	2.0			
		.02 80 mm dia.	No.	1.0			
		.02 Supply, delivery, installation, testing and commissioning new non-return valves					
		.01 50 mm dia.	No.	2.0			
		.02 80 mm dia.	No.	1.0			
		.03 Supply, delivery, installation, testing and commissioning new water meters					
		.01 50 mm dia.	No.	2.0			
		.02 80 mm dia.	No.	1.0			
601.02	CE.04.01	Servicing of Valves					
		.01 Isolating valves (existing pipeline and valve size to be verified on site before ordering of material):					
		.01 50 mm dia.	No.	3.0			
		.02 80 mm dia.	No.	3.0			
		.02 Non-return valves					
		.01 80 mm dia.	No.	3.0			
602		WATER DISTRIBUTION NETWORKS					
602.01	CE.01.01	Water distribution pipelines					
		.01 Repair of existing pipelines					
		.01 Distribution pipes not exceeding 1.0m deep (40mm to 75mm)	m	200.0			
		.02' House connections no exceeding 800mm deep	m	150.0			
602.02	CE.01.02	.02 Provision of materials for repair					
		.01 uPVC class 12 pressure pipes to SABS 966 with integral "LYNG" mechanical rubber ring joints:					
		.01 75 mm dia.	m	200.0			
		.02 Galvanised mild steel (GMS) medium duty quality pipes to SABS 62 with flanged couplings. Normalised pipes:					
		.01 50 mm dia.	m	60.0			
		.02 80 mm dia.	m	60.0			
		.03 HDPE - 100 Class 10 pressure pipes, ISO 4427					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 25 mm dia.	m	150.0			
		.02 50 mm dia.	m	80.0			
		.04 Saddles with standard drilling and 25 mm BSP tapping for connections to supply lines:					
		.01 25 mm dia.	No.	8.0			
		.02 50 mm dia.	No.	5.0			
		'.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.	3.0			
		.02 between 55 mm and 76 mm	No.	2.0			
		.03 between 76 mm and 99 mm	No.	1.0			
603.02	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.	3.0			
		.02 between 55 mm and 76 mm	No.	2.0			
		.03 between 76 mm and 99 mm	No.	1.0			
		.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.	2.0			
		.02 between 76 mm and 99 mm	No.	1.0			
		.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.	5.0			
		.02 between 99 mm and 130 mm	No.	7.0			
		.09 Supply and Installation of Stainless Steel Cascade clamps for any types of pipes					
		.01 full clamps between 50 and 100mm dia. pipes	No.	5.0			
603.02	CE.01.02	.03 Replacement of manhole covers, grid inlets, etc.					
		.01 SABS 558 Type 8A - Medium duty class size 600 x 450mm rectangular manhole cover and frame, double sealed type.	No.	1.0			
Total Carried Forward							

INSTALLATION A5: BULK WATER SUPPLY AND EXTERNAL WATER RECTICULATION CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.02 SABS 558 Type 8B - Medium duty class size 600 x 600mm square manhole cover and frame, double sealed type.	No.	1.0			
		.03 SABS 558 Type 9A - Light duty class size 600 x 600mm square manhole cover and frame, single sealed type.	No.	1.0			
		.04 SABS 558 Type 9E - Light duty class size 900 x 600mm rectangular manhole cover and frame, single sealed type.	No.	1.0			
		Allow excavation for new bulk water supply pipeline	m3	400.0			
PSLD	213.18	WATER STORAGE TANKS					
		.01 Repair leakings steel tanks by changing the panels and waterproofing (6x 30kl tanks)	PC Sum	1.0	210,000.00	210,000	00
		.02 Allow for cleaning all existing Water steel tank	Sum	1.0	80,000.00	80,000	00
Total Carried Forward To Summary							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS					
700		ROADS					
701		BITUMINOUS PAVEMENTS					
701.01		Pavement layers and asphalt surface repair					
	CA.03	.01 Excavation in existing pavements for patching	m3	50.0			
	COLTO 16.01	.02 Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m3-km	50.0			
	COLTO 38.08	.03 Sawing or cutting asphalt or cemented pavement layers:					
		.01 'Cutting asphalt using a mechnical sawing machine	m	150.0			
		.04 Backfilling and reinstatement of pavement layers					
		.01 Chemically-stabilized gravel exca-vated from the existing pavement (areas up to and including 10 m2)	m3	50.0			
		.02 Chemically-stabilized gravel exca-vated from the existing pavement (areas larger than 10 m2 up to and including 50 m2)	m3	50.0			
		.03 Asphalt surfacing (continuously graded medium in drums)	t	4.0			
		01 Material to be disposed of with the average depth of excavation up to 60mm					
		02 Excavating and spoiling material from an existing pavement and/or the underlying fill:	m3	12.0			
		.01 Non-cemented material					
		.02 Asphalt surfacing (continuously graded medium, 60/70 penetration grade asphalt)	m2	10.0			
		03 Surface patching of surfaced roads					
		01 Trimming the edges and edge breaks of the existing surfacing	m	15.0			
		04 Pothole repair using cold mix asphalt surfacing from the following sources					
		01 Commercial sources (30mm thick)	m2	5.0			
		.05 Repair of segmented paving					
		01 Remove and discard damaged concrete block paving (80 mm interloc	m2	480.0			
		06 Excavation for repair of segmented paving (max. 300 mm depth)					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward						69,380	00
		01 Stockpile and re-use paving blocks	m2	200.0			
701.02	CA.04	Surface patching of surfaced roads					
		.01 Trimming the edges and edge breaks of the existing surfacing	m	20.0			
		.02 Pothole repair using cold mix asphalt surfacing from the following sources:					
		.01 'Commercial sources	t	1.0			
		.01 Preparation and sealing or resealing of old joints and cracks in existing concrete pavements					
		01 Expansion joints > 5 mm wide	m	200.0			
		.02 Construction Joints and weakened plane joints > 5 mm wide	m	80.0			
		.03 Cracks > 5 mm	m	15.0			
		02 Patching of concrete					
		.01 150mm thickness	m2	40.0			
		.03 Y12 high tensile steel reinforcing bars in concrete	kg	60.0			
702		CONCRETE BLOCK PAVEMENTS					
702.01	CA.05.01	Remove concrete paving blocks:					
		.01 Discard paving blocks	m2	480.0			
		.02 Stockpile and re-use paving blocks	m2	480.0			
702.02	CA.05.04	Cast in situ concrete and formwork in edge beams, intermediate beams and kerbing:					
		.01 Class 30 concrete	m3	10.0			
702.03	CA.05.05	Breaking up and removing concrete edge beams, intermediate beams, etc.	m3	10.0			
702.04	CA.05.06	Steel reinforcement in edge beams, intermediate beams and kerbing:					
		.01 Mild steel bars	t	1.0			
702.05	CA.05.07	Supply and install Concrete block paving:					
		.01 Class, type and thickness similar to existing pavement for areas carrying vehicular traffic (80 mm interlocking paving blocks (grey) on 20 mm bedding sand)	m2	500.0			
702.06	CA.05.08	Replacement of jointing sand	m2	250.0			
		02 Replacing of kerbs					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 Barrier kerbs similar to existing undamaged barrier kerbs	m	40.0			
		.02 Semi-mountable kerbs (SANS Fig. 7)	m	100.0			
		.03 Removal of kerbs	m	10.0			
		CONCRETE PAVEMENTS					
702.06a	CA.02	Surface repairs of concrete pavements					
		.04 Excavation and disposal of concrete pavement:					
		.01 'Non-reinforced concrete (150 mm thickness)	m3	15.0			
703		GRAVEL SHOULDERS AND WEARING COURSE					
703.01	CA.01	Gravel shoulders constructed from gravel taken from cut or borrow, including free-haul up to 1,0 km:					
		.01 Compacted to 93% of modified AASHTO density (150 mm compacted layer thickness)	m3	5.0			
705		ANCILLARY ITEMS					
705.01	CA.06	Repair of kerbing					
		.01 Patching of kerbs	m	30.0			
706		ROAD TRAFFIC SIGNS AND ROAD MARKINGS					
705.02	CA.07	Erection and repair of road traffic signs and traffic-control devices					
		.01 Erection or reinstatement of road sign boards					
		.01 Area not exceeding 2 m²	m²	10.0			
		.02 Area exceeding 2 m2	m²	10.0			
		.02 Road sign supports (overhead road sign structures excluded)					
		.01 Steel tubing of 76 mm diameter and 3 mm wall thickness	No.	7.0			
		.02 Galvanized D-profile steel tubing of 3 mm wall thickness	No.	7.0			
		.03 Excavation and backfilling for road sign supports	m³	1.0			
		.05 Hazard plates (600 x 150 mm)	No.	3.0			
		.06 Repair of road sign faces	m²	2.0			
706.01a	CA.08	Road markings					
		.01 Road-marking paint					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.01 Longitudinal lines:					
		(i) White lines (broken or unbroken) - 100 mm width	m	1,220.0			
		(ii) Yellow lines (broken or unbroken) - 100 mm width	m	850.0			
		.02 Retro-reflective road-marking paint					
		.01 Longitudinal lines:					
		(i) White lines (broken or unbroken) - 100 mm width	m	120.0			
		(ii) White lines (broken or unbroken) - 150 mm width	m	50.0			
		(iii) White lines (broken or unbroken) - 200 mm width	m	150.0			
		(iv) Yellow lines (broken or unbroken) - 100 mm width	m	600.0			
		(v) Yellow lines (broken or unbroken) - 150 mm widthYellow lines (broken or unbroken) - 150 mm width	m	25.0			
706.01a		.02 Transverse lines and other markings:					
		(i) Broken or unbroken lines, white, red or yellow	m	120.0			
		(ii) Lettering and symbols, white, red or yellow, repainting existing markings	m	50.0			
		(iii) Traffic island markings, white or yellow repainting existing markings	m	150.0			
		.03 Setting out and premarking of lines (excluding traffic island markings, lettering and symbols)	km	0.8			
		.04 Removal of road markings					
		.01 Removal of markings by means of grit blasting	m	25.0			
		.05 Painting of concrete kerbs by hand using road marking paint, yellow and white	m2	30.0			
707		STORM WATER DRAINAGE					
707.01		Cleaning of prefabricated culverts					
		.01 Cleaning of prefabricated culvert and inlet and outlet structures (average depth of material removed is more than 100 mm):					
		.01 'Prefabricated concrete pipes and portal culverts with maximum cross sectional dimension of:					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		'.01 Up to and including 500 mm	m3	50.0			
707.02	CB.03	Concrete construction and repair					
		.01 Excavation:					
		.01 'Soft material	m³	10.0			
		.02 'Existing concrete, including freehaul of 0,5 km	m³	3.0			
707.02(cont.)		.02 Cast in situ concrete and formwork in storm water structures					
		.01 'Class 20 Concrete	m3	3.0			
		.03 Backfill below channels	m3	1.0			
		.04 Steel reinforcement					
		.01 Welded steel mesh ref. 245	kg	86.0			
		.01 Class 20 concrete	m3	1.0			
		.03 Backfill below channels	m3	1.0			
		.04 Steel reinforcement					
		01 Welded steel mesh ref 245	m2	10.0			
		ANCILLARY ITEMS					
		.01 Flat-topped solid rubber speed bumps installed complete	number	8.0			
		02 Flat-topped solid stainless steel speed bumps installed complete	number	8.0			
		PAVED ROAD CONSTRUCTION					
		.01 EARTHWORKS (ROADS, SUBGRADE)					
		.01 Preparation and stripping of Site/removal of topsoil to 150mm depth, stockpiling , and maintaining	m2	100.0			
		02 Preparation and stripping of Site/removal, haulage, and spreading of topsoil maximum depth of 150mm	m3	30.0			
		.03 Removal of unsuitable material to a depth of 300mm along the road	m3	50.0			
		02 Treatment of road-bed					
		Road bed preparation and compaction of material to					
		01 Minimum to 93% of mod AASHTO maximum density	m3	50.0			
		.03 CUT TO FILL					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 minimum to 93% of mod AASHTO maximum density	m3	50.0			
		.04 BORROW TO FILL					
		.01 Minimum to 93% of mod AASHTO maximum density	m3	2.0			
		.02 Selected layer compacted to 95% mod AASHTO	m3	15.0			
		.05 CUT TO SPOIL OR STOCKPILE					
		.01 Soft excavation	m3	50.0			
		.02 Intermediate excavation	m3	1.0			
		SUBBASE					
		.01 Construct the subbase course/shoulders with material from commercial sources or designated borrow areas identified by the contractor (rates inclusive of haulage)					
		01 96% of modified AASHTO density (In layer thicknesses not exceeding 200 mm and less.)	m3	300.0			
		02 Process subbase material by the following processes, as relevant, and use in the subbase					
		01 a) Screening	m3	20.0			
		02 b) Heavy grid rolling	m3	20.0			
		.03 c) Mechanical modification	m3	20.0			
		.04 d) Stabilization	m3	40.0			
		.03 Stabilizing agent					
		01 a) Road lime	t	4.0			
		.02 b) Portland cement (3,5%) to SANS 471	t	8.0			
		Overhaul (haul exceeding 2 km) (provisional)	m3 - k	200.0			
		CRUSHED-STONE BASE					
		.01 Crushed stone base:					
		01 Constructed from type G4 material obtained from commercial sources and compacted to 98% of the apparent relative density in layer thicknesses of 200 mm and less. Maximum size 19 mm					
		(i) 150mm thickness	m3	50.0			
		BITUMINOUS SURFACE TREATMENT					
		.01 Prime coat:					
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 (b) Quick drying RTH 1/4P tar prime	litre	500.0			
		.02 (c) MC-30 cut-back bitumen	litre	500.0			
		.02 Extra over item 3.5 for applying the prime coat in areas accessible only to hand held equipment	litre	20.0			
		KERBING AND CHANNELING					
		.01 Provision of Edge Restraints (Precast kerbs and channels to SANS 927:2007 Edition 3.1) Drawing No C.2015001/102					
		.01 Figure 3 - Half battered kerb	m	50.0			
		.02 Figure 8(c) - Mountable Kerbing	m	50.0			
		.03 Figure 10 - Rectangular Edging	m	50.0			
		.04 Concrete Kerbing (Fig 1) and Channelling (Fig 13) Combination	m	50.0			
		05 Open Stormwater drainage channel 500mm x 500mm wide including formwork	m	50.0			
		.06 Finishing top surfaces of concrete smooth with a wood float	m2	75.0			
		CONCRETE BOLLARDS AT GROBLERSBRIDGE					
		Supply and erect concrete bollards 0.8m -1.2m high	No.	8.0			
		NEW SEGMENTED PAVING					
		Concrete interlocking block paving complete including amongst others sand as specified					
		.01 Type S-A. 80mm thick, Black/Grey in colour					
		01. Class 25	m2	150.0			
		02. Class 35	m2	300.0			
		.05 Pre-cast concrete edge restraint and intermediate beams 30MPa	m3	5.0			
		Provision of approved herbicide and ant poison.					
		01 (a) Provision of herbicide	m2	400.0			
		.06 TESTING MATERIALS AND WORKMANSHIP					
		01. Other special tests requested by the engineer	PC Sum	1.0		20,000	00
		02. Providing testing equipment:					
		(a) Rolling straight-edge	No	1.0			
Total Carried Forward							

INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		01. Concrete retaining block wall system	m2	0.0			
		ROAD MARKINGS					
		01. Road marking paint:					
		(a) White lines (broken or unbroken)					
		(1) 100 mm wide	km	0.5			
		(2) 200 mm wide	km	0.5			
		(3) 500 mm Wide	km	0.2			
		(b) Yellow lines (broken or unbroken)					
		(1) 100 mm wide	km	0.5			
		(2) 150 mm wide	km	0.5			
		(d) White lettering and symbols	m2	2.0			
		(e) Yellow lettering and symbols	m2	2.0			
		(f) Transverse lines, painted island and arrestor bed markings (any colour)	m2	1.0			
		02 Variations in rate of application:					
		(a) White paint	litre	60.0			
		(b) Yellow paint	litre	60.0			
		03 Setting out and premarking the lines (Excluding traffic-island markings, lettering and symbols)	km	0.5			
		STORM WATER DRAINAGE					
		.01 Cleaning of concrete drains and channels	m	50.0			
		.02 Construct inlets and outlets head walls	No	2.0			
		03 30MPa concrete for the construction of the drifts and V drains	m3	2.0			
Total Carried Forward To Summary							

INSTALLATION A7: STANDBY POWER CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A7: STANDBY POWER CORRECTIVE MAINTENANCE WORKS					
800		GENERATOR					
800.01	HB 10.03.04	Replace 12v starter battery	No.	4.0			
800.02	HB 10.03.07	Supply and install padlocks	No.	4.0			
800.03	HB 10.03.11	Add 12/24V DC Emergency light	No.	4.0			
800.04	HB 10.03.11	First Aid Kit (FAK 02A)	No.	2.0			
800.05	HB 10.03.12	Supply and install fuel modular filtration system with automatic water dump	No.	4.0			
800.06	HB 10.03.12	Supply and install fuel water separator with automatic water dump	No.	4.0			
801		UPS					
801.01	HB 11.03.01	Service UPS Units					
		.01 Tower 1100 15kVA Unit	No.	4.0			
		.02 Tower 1100 10kVA Unit	No.	1.0			
801.02	HB 11.03.03	Replace UPS batteries:					
		.01 Tower 1100 10kVA Unit 12V 7a/h	No.	60.0			
801.03	HB 11.03.06	Replace UPS battery charger card	No.	20.0			
801.04	HB 11.03.06	Replace UPS Control card	No.	1.0			
801.05	HB 11.03.06	Replace UPS Power Supply card	No.	1.0			
801.06	HB 11.03.07	Replace UPS 32A fuses	No.	8.0			
801.07	HB 11.03.07	Supply, install and commision of new generator 80kva at Stockpoort	PC Sum	1.0		220,000	00
801.08	HB 11.03.08	Supply, install and commision for new generator 250kva at Groblersbridge	PC Sum	1.0		650,000	00
801.09	HB 11.03.09	Service 180 kVA genset at Groblersbridge	No.	1.0		15,000	00
801.10	HB 11.03.10	Service 57 kVA genset at Stockpoort	No.	1.0		15,000	00
801.11	HB 11.03.11	Pprovision of operator training	PC Sum	1.0		15,000	00
801.12	HB 11.03.12	Supply and install 40mm armoured cable	metre	150.0			
Total Carried Forward To Summary							

INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS					
900		GENERAL					
900.01	HE 08.06(a)	Excavate in all materials for trenches, backfill, compact and dispose of surplus material	m3	10.0			
900.02	HE 08.06(b)	Extra over item HE 09.06(a) above for excavating in hard materials	m^3	10.0			
900.03	HE 08.06(c)	Extra over item HE 09.06(a) above for excavating by hand in all materials	m3	20.0			
900.04	HE 08.06(f)	Supply and install plastic warning tape	m	100.0			
900.05	HE 08.06(e)	Supply and install uPVC sleeves:					
		.01 110 mm diameter	m	66.0			
900.06	HE 08.06(g)	Supply and delivery of PVC/SWA/PVC Cu low-voltage cable:					
		.01 95 mm2, 4-core	m	20.0			
		.02 70 mm2, 4-core	m	30.0			
		.03 50 mm2, 4-core	m	20.0			
		.04 25 mm2, 4-core	m	50.0			
		.05 16 mm2, 4-core	m	50.0			
		.06 16 mm2, 2-core	m	100.0			
		.07 10 mm2, 2-core	m	100.0			
		.08 6 mm2, 3-core	m	60.0			
900.07	HE 08.06(h)	Lay PVC/SWA/PVC Cu LV cable:					
		.01 95 mm2, 4-core	m	60.0			
		.02 70 mm2, 4-core	m	100.0			
		.03 50 mm2, 4-core	m	20.0			
		.04 25 mm2, 4-core	m	40.0			
		.05 16 mm2, 4-core	m	80.0			
		.06 16 mm2, 2-core	m	110.0			
		.07 10 mm2, 2-core	m	120.0			
		.08 6 mm2, 3-core	m	100.0			
900.08	HE 08.06(i)	Termination of PVC/SWA/PVC Cu LV cable:					
		.01 95 mm2, 4-core	No.	2.0			
		.02 70 mm2, 4-core	No.	2.0			
		.03 50 mm2, 4-core	No.	2.0			
Total Carried Forward							

INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.04 25 mm2, 4-core	No.	2.0			
		.05 16 mm2, 4-core	No.	2.0			
		.06 16 mm2, 2-core	No.	4.0			
		.07 10 mm2, 2-core	No.	4.0			
		.08 6 mm2, 3-core	No.	2.0			
900.09	HE 08.06(m)	Jointing of low voltage cable:					
		.01 25 mm2, 4-core	No.	3.0			
		.02 10 mm2, 4-core	No.	2.0			
900.1	HE 08.06(j)	Supply and delivery of bare copper					
		earth conductor:					
		.01 50 mm2	m	60.0			
		.02 35 mm2	m	100.0			
		.03 16 mm2	m	40.0			
		.04 10 mm2	m	80.0			
		.05 6 mm2	m	40.0			
900.11	HE 08.06(k)	Installation of bare copper earth					
		conductors:					
		.01 50 mm2	m	60.0			
		.02 35 mm2	m	100.0			
		.03 16 mm2	m	40.0			
		.04 10 mm2	m	80.0			
		.05 6 mm2	m	40.0			
900.12	HE 08.06(q)	Supply and installation of circuit breakers:					
		10-20A, 5 kA, single pole	No.	5.0			
		25-60A, 5 kA single pole	No.	2.0			
		25-60A, 5 kA triple pole	No.	3.0			
		70-80A, 5 kA triple pole	No.	2.0			
		70-100A, 15 kA triple pole	No.	2.0			
		125-160A, 15 kA triple pole	No.	2.0			
		225A, 15 kA triple pole	No.	1.0			
		300A, 25kA triple pole	No.	1.0			
Total Carried Forward							

INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
900.13	HE 08.06(s)	Supply and installation of contactors:					
		.01 30A, 3 pole	No.	3.0			
900.14	HE 08.06(o)	Supply and installation of internal luminaire components:	No.	3.0			
		Ballast for 400 W HPS	No.	2.0			
		Igniter for 400 W HPS	No.	5.0			
		Capacitor for 400 W HPS	No.	10.0			
		GES porcelain lamp holder	No.	10.0			
		Choke for PL26W	No.	10.0			
900.15	HE 08.06(z)	Replace Luminaire diffuser					
		.01 400W HPS Floodlight	No.	4.0			
		.02 PL26W Streetlight	No.	4.0			
900.16	HE 08.06(u)	Supply and install photocell	No.	3.0			
900.17	HE 08.06(v)	Supply and install QAT-R-clip-in timer	No.	1.0			
900.18	HE 08.06(x)	Supply and install end connectors and insulating sleeves	No.	25.0			
900.19	HE 08.06(ac)	Supply and install 3 way parallel entry cable boxes					
		No 1	No.	1.0			
		No 2	No.	4.0			
		No 3	No.	6.0			
901		DISTRIBUTION KIOSKS					
901.01	HC 12.03 (a)	Service Distribution kiosk	No.	2.0			
901.02	HC 12.03 (b)	Remove rust and paint kiosk	No.	1.0			
901.03	HC 12.03 (c)	Label kiosks	No.	2.0			
901.04	HC 12.03 (d)	Supply and install padlocks (Key Alike)	No.	8.0			
901.05	HC 12.03 (f)	Replace door hinges	No.	2.0			
901.06	HC 12.03 (g)	Supply and install door handles	No.	2.0			
901.07	HE 08.06(ag)	Replace distribution kiosk (6 way)	No.	3.0			
901.08	HE 08.06(ag)	Supply and install Main distribution kiosk	PC Sum	1.0		80,000	00
Total Carried Forward							

INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
901.09	HE 08.06(ag)	Supply padlocks	No.	10.0			
902	HC 13.03	OVERHEAD RETICULATION SYSTEM					
902.01	HC 13.03 (a)	Service overhead LV system	m	400.0			
		Replace insulator	No.	5.0			
		Re-tensioning of overhead conductors	No.	2.0			
		MEDIUM AND LOW VOLTAGE: SUBSTATION					
		.01 Service substation building	No.	1.0			
		.02 Provide labels, notices and schematics	No.	3.0			
		.03 Service 11kV switch gear					
		.01 Merlin Gerlin RMG	No.	1.0			
		.08 Replace silica gel	No.	1.0			
		TOOLS AND SPARES					
		.01 MV Switchgear system					
		.01 MV fuses 20-50A 12kV 40kA	No.	3.0			
		02 Cut out fuse element 10A type K	No.	3.0			
		03 Cut out fuse element 22A type K	No.	3.0			
902.02	HC 13.03 (b)	Service distribution boards					
		Sub distribution board: DB (Building B2)	No.	1.0			
		Sub distribution board: DB-GHS & DB UPS	No.	2.0			
		Sub distribution board: DB-PA & DB-SA (Ablutions)	No.	4.0			
		Sub distribution board: (Vehicle Inspection)	No.	4.0			
		Sub distribution board: DB-2 (SAPS Office)	No.	1.0			
		Sub distribution board: Park Home Office	No.	2.0			
		Sub distribution board: DB (Mobile Tent)	No.	1.0			
		Sub distribution board: DB-GHN & DB UPS	No.	2.0			
		Sub distribution board: DB-SEO (Vehicle Inspection)	No.	2.0			
		Sub distribution board: DB (Scale Office)	No.	1.0			
		Sub distribution board: Park Home Office	No.	2.0			
		Sub distribution board: (Building D11)	No.	1.0			
Total Carried Forward							

INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Sub distribution board: DB-Local (Generator Room)	No.	1.0			
		Sub distribution board: (Cells, stores)	No.	4.0			
		Sub distribution board: DB (Boardroom & Server)	No.	3.0			
		Sub distribution board: Park Home Office	No.	7.0			
		Sub distribution board: DB-House (Married quarters)	No.	3.0			
		Sub distribution board: DB-Garage	No.	2.0			
		Sub distribution board: DB-House (Small houses)	No.	2.0			
		Sub distribution board: Mobile Homes (houses)	No.	10.0			
		Sub distribution board: Other Facilities	No.	2.0			
		Main distribution board: DB-Operations	No.	1.0			
902.03	HC 13.03 (c)	ReLamp Luminare					
		1000W HPS lamp	No.	6.0			
		400W HPS lamp	No.	6.0			
		250W HPS lamp	No.	6.0			
		250W MH lamp	No.	6.0			
		26W CF lamp	No.	6.0			
902.04	HC 13.03 (d)	Replace luminaire with LED equivalent					
		1000W HPS floodlight	No.	6.0			
		400W HPS floodlights	No.	6.0			
		250W HPS floodlights	No.	6.0			
		250W HPS Streetlight	No.	6.0			
		Replace photocell	No.	6.0			
902.05	HC 13.03 (b)	Replace area light pole					
		7m galvanised steel	No.	6.0			
		4m galvanised steel	No.	6.0			
		9m treated wooden light pole	No.	6.0			
		Straight wooden light poles	No.	10.0			
Total Carried Forward To Summary							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS					
1000		GENERAL					
1000.01a	PFD 05.01.01a	SERVICE ALL AC UNITS AT GROBLERBRIDGE					
1		Clean air intake screen	No.	60.0			
2		Replace filters	set	20.0			
3		De-rust neutralize and touch up paintwork	No.	60.0			
4		Check setting and operation of all pressure switches and reset	No.	60.0			
5		Check setting and operation of all safety switches, i.e.. LP&HP switches, oil pressure switch	No.	65.0			
6		Check setting and operation of thermostat	No.	60.0			
7		Check running current of fans and compressor and settings and operation of overloads	No.	65.0			
8		Check tightness of all electrical terminals	No.	80.0			
9		Ensure operation of local and remote isolators	No.	60.0			
10		Reposition and strap cables	No.	90.0			
11		Carry out a leak test on all refrigeration piping and components inclusive of evaporator and condenser	No.	60.0			
12		Replace compressor vibration mounts	set	60.0			
13		Check refrigerant charge sight glass being clear or flashing	No.	60.0			
14		Clean condensate tray and test drainage operation	No.	60.0			
15		Clean evaporator and condenser fan blades and check unbalance	No.	60.0			
1000.01b	PFD 05.01.01b	SERVICE ALL AC UNITS AT STOCKPOORT					
1		Clean air intake screen	No.	24.0			
2		Replace filters	set	10.0			
3		De-rust neutralize and touch up paintwork	No.	20.0			
4		Check setting and operation of all pressure switches and reset	No.	24.0			
5		Check setting and operation of all safety switches, i.e.. LP&HP switches, oil pressure switch	No.	24.0			
Total Carried Forward							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6		Check setting and operation of thermostat	No.	24.0			
7		Check running current of fans and compressor and settings and operation of overloads	No.	30.0			
8		Check tightness of all electrical terminals	No.	20.0			
9		Ensure operation of local and remote isolators	No.	30.0			
10		Reposition and strap cables	No.	30.0			
11		Carry out a leak test on all refrigeration piping and components inclusive of evaporator and condenser	No.	30.0			
12		Replace compressor vibration mounts	set	30.0			
13		Check refrigerant charge sight glass being clear or flashing	No.	30.0			
14		Clean condensate tray and test drainage operation	No.	30.0			
15		Clean evaporator and condenser fan blades and check unbalance	No.	30.0			
		Allowance to decommission existing AC Conditioning Unit, supply and install new AC Conditioning Unit at Groblersbridge					
		9kW ceiling cassette unit	No.	2.0			
		7.2kW mid wall split unit	No.	10.0			
		5.2kW mid wall split unit	No.	10.0			
		3.5kW mid wall split unit	No.	5.0			
		2.6kW mid wall split unit	No.	5.0			
		3.5kW window shaker	No.	5.0			
		2.6kW window shaker	No.	5.0			
		Allowance to decommission existing AC Conditioning Unit, supply and install new AC Conditioning Unit at Stockpoort					
		7.2kW mid wall split unit	No.	10.0			
		5.2kW mid wall split unit	No.	5.0			
		3.5kW mid wall split unit	No.	5.0			
		2.6kW mid wall split unit	No.	5.0			
		3.5kW window shaker	No.	5.0			
		2.6kW window shaker	No.	5.0			
		High Wall Split Unit using R410 Gas					
Total Carried Forward							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
1		Condensate Drain Pipe	No.	57.0			
2		Support Brackets	set	19.0			
3		Remote Controlls	No.	10.0			
4		R410 Gas Top Up	No.	17.0			
1001	PFD 05.01.04	REPLACE AC UNIT					
1		26000 Btu high wall split unit	No.	1.0			
2		18000 Btu high wall split unit	No.	1.0			
3		12000 Btu high wall split unit	No.	2.0			
4		Air Curtains similar to existing	No.	2.0			
1002	PFD 05.01.03	RE-GAS AC UNIT	No.	17.0			
1002.01	PFD 05.01.05	Replace 25mm Thermaflex isolation	m	20.0			
1002.02	PFD 05.01.06	Replace Control (PC) Board					
		.01 High wall split unit	No.	3.0			
1002.03	PFD 05.01.07	Replace Compressor					
1		26000 Btu high wall split unit	No.	1.0			
2		18000 Btu high wall split unit	No.	2.0			
3		12000 Btu high wall split unit	No.	3.0			
1002.04	PFD 05.01.08	REPLACE CAPACITOR					
1		26000 Btu high wall split unit	No.	1.0			
2		18000 Btu high wall split unit	No.	4.0			
3		12000 Btu high wall split unit	No.	10.0			
1002.05	PFD 05.01.09	Remove and re-install air-conditioner	No.	4.0			
		GENERAL REPAIR					
1		Replace Luminaire diffuser					
2		250 HPS streetlight	No.	1.0			
3		PL26W Streetlight	No.	4.0			
4		Replace Pole Cover					
5		Access door mounting R55	No.	4.0			
Total Carried Forward							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Area lighting					
		Replace Luminaire					
		01. Luminaore 400 W HPS Floodlight	No.	1.0			
		02. 250 HPSE Streetlight	No.	6.0			
		Service area light pole	No.	6.0			
		Replace arealight pole					
		01 9 Meter Fibreglass pole arealight	No.	2.0			
		Security lighting					
		Service security light pole	No.	2.0			
		Replaces security light poles					
		4.5 Meter Fibreglass pole	No.	1.0			
		3.5 Meter Fibreglass pole	No.	1.0			
		REPLACEMENT HVAC INSTALLATIONS AT STOCKPOORT					
		Supply, delivery, installation, commissioning and testing of HVAC equipment, complete with interconnecting piping, valves, wiring, top-up gas (R410a Only), drains, mounting brackets, electrical connection and remote controls as specified below.					
		.01 Fixed Digital Remote Control with LCD Display	set	3.0			
		Size: 4.5 kW Cooling Capacity with Reversible Cycle for Heating					
		Type: Floor Standing Unit					
		.02 Refrigerant: R410a	No.	3.0			
1		Power: 220-240V/1Ph/50-60Hz					
2		Remote Control: Fixed Connection					
3		Size: 3.6kW Cooling Capacity with Reversible Cycle for Heating					
		Type: High Wall Split					
4		.03 Refrigerant: R410a	No.	3.0			
		Power: 220-240V/1Ph/50-60Hz					
		Remote Control, Fixed Connection					
		NEW HVAC INSTALLATIONS AT GROBLERSBRIDGE					
Total Carried Forward							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
5		Supply, delivery, installation, commissioning and testing of HVAC equipment, complete with interconnecting piping, valves, wiring, mounting brackets, electrical connection, occupancy sensors for activation and deactivation and manual override on/off switch as specified below.	No.	2.0			
		Capacity: 286 m3/h					
		Type: Ceiling Mounted Extraction Fan					
		Sound: 45 dB					
		.01 Size: 273mm	No.	3.0			
		Ducting Size: 150mm					
		Power: 220-240V/1Ph/50-60Hz					
		On/Off Control: Occupancy Sensor					
		Override On/Off Control: Manual On/Off Switch					
6		.02 On/Off Control: Occupancy Sensor	No.	3.0			
		NEW HVAC INSTALLATIONS AT GROBLERSBRIDGE PORT OF ENTRY					
		Supply, delivery, installation, commissioning and testing of HVAC equipment, complete with interconnecting piping, valves, wiring, top-up gas (R410a Only), drains, mounting brackets, electrical connection and remote controls as specified below.					
		Size. 3.6 kW Cooling Capacity					
		Type: Floor Standing Unit					
8		.01 Refrigerant: R410a	No.	6.0			
		Power: 220-240V/1Ph/50-60Hz					
		Remote Control: Fixed Connection					
		HOT WATER GEYSER INSTALLATIONS					
		REPLACEMENT HOT WATER GEYSER INSTALLATIONS AT 2 PORTS OF ENTRY					
9		Supply, delivery, installation, commissioning and testing of Hot Water Geyser equipment, complete with interconnecting piping, non-return valves, gate valves, pressure releasing valves, wiring, overflow outlet pipe, mounting brackets, electrical connection and electrical isolators as specified below.	No.	10.0			
		.01 Capacity: 100 Litres					
		Element Rating: 2kW					
Total Carried Forward							

INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
10		Operating Pressure: 600kPa Mass (Empty): 32kG Connections: 32mm Power: 220-240V/1 Ph/50-60Hz	No.	8.0			
Total Carried Forward To Summary							

INSTALLATION A10: CONVENTIONAL FIRE FIGHTINGEQUIPMENT CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
		INSTALLATION A10: CONVENTIONAL FIRE FIGHTINGEQUIPMENT CORRECTIVE MAINTENANCE WORKS					
1100		CONVENTIONAL FIRE FIGHTING EQUIPMENT					
1101		DETAIL WORK					
1101.01	PJC.04	Supply and installation of fire hydrant equipment:					
1		Fire hose cabinet large enough to hold four 30m coils of fire hose.	No.	3.0			
2		Jet/spay branch pipes equivalent to AWG 1C.	No.	2.0			
3		30m long, 64mm, percolating fire hose coils complete with quick couplings.	No.	3.0			
4		Natural anodised Fire Hydrant keys with four sizes in one	No.	1.0			
1101.02	PJC.06	Supply and installation of fire extinguisher equipment:					
1		9 kg Dry chemical powder (STP) fire extinguisher	No.	2.0			
2		4.5 kg STP fire extinguisher	No.	2.0			
3		5 kg CO2 fire extinguisher	No.	2.0			
4		Lockable, metal cabinet for fire extinguisher	No.	2.0			
1101.03	PJC.07	Servicing, cleaning and repair of fire hydrants:					
1		80 mm dia. right angle hydrant valves	No.	5.0			
2		Replace quick coupling catches	No.	5.0			
3		Replace main hydrant seals	No.	5.0			
4		Repaint hydrant	No.	5.0			
1101.04	PJC.08	Servicing, cleaning and repair of fire hose reels:					
1101.04	PJC.08	.01 Replace 30 m hose	No.	5.0			
1101.05	PJC.09	Servicing, cleaning, recharging and repair of fire extinguishers:					
1		Dry chemical power (STP) fire extinguisher:					
2		Check, service and repair activation mechanism	No.	38.0			
3		Replace DCP powder for 4.5 kg charge	No.	38.0			
4		Replace DCP powder for 9 kg charge	No.	38.0			
5		Recharge discharge cylinder	No.	38.0			
6		Reseal discharge mechanism	No.	38.0			
7		Replace instructions on extinguishers	No.	38.0			
Total Carried Forward							

INSTALLATION A10: CONVENTIONAL FIRE FIGHTINGEQUIPMENT CORRECTIVE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	c
Brought Forward							
8		Replace wall-mounting polished hardwood backboard and bracket	No.	38.0			
		.02 Carbon dioxide (CO2) fire extinguisher:					
1		Repair activation mechanism	No.	10.0			
2		Recharge with CO2 for 5kg charge	No.	10.0			
3		Recharge with CO2 for 2,27kg charge	No.	10.0			
4		Reseal discharge mechanism	No.	10.0			
5		Replace instructions on extinguisher	No.	10.0			
6		Replace wall mounting polished hardwood backboard and bracket	No.	10.0			
1101.06		Fire Safety Training					
		0.1 Provide Training for Fire Safety to POE Staff	PC Sum	1.0		27,000	00
1101.07		Testing of Electric Fire Pump	PC Sum	1.0		17,000	00
1101.08		FIRE PUMPSTATION					
		Allow for provision for repairing diesel generator	PC Sum	1.0		50,000	00
		Allow for provision for repairing all electrical works	PC Sum	1.0		40,000	00
		Allow for provision for repairing surface pumping unit	PC Sum	1.0		80,000	00
		Allow for provision for repairing leaking storage wate tank and valvesr	PC Sum	1.0		80,000	00
		Supply and install fire detection system	PS Sum	1.0		350000	00
Total Carried Forward To Summary							

INSTALLATION A11: WATER TREATMENT WORKS AND SEPTIC TANKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION A11: WATER TREATMENT WORKS, INCINERATOR AND SEPTIC TANKS					
1197	EB.08	WATER TREATMENT WORKS AT GROBLERSBRIDGE AND STOCKPOORT					
	EB.08	Clean out storage tanks complete, remove all artificial solids. capacity 30kl tank	No	6.0			
	EB.08	Allow for provision for repairing the water process equipment.	PC Sum	1.0		150,000	00
	EB.08	Allow for provision for upgrading and improving the Water PH to level of WHO standard.	PC Sum	1.0		150,000	00
	EB.08	Allow for provisiion for supply and install new under filters in al residential houses	PC Sum	1.0		150,000	00
1198	EB.03	Decommissioning and removal of equipment:					
		1.5kW Motor, Gearbox and Mixer	No	1.0			
		Submersible Vortex Pump and Motor capable of pumping	No	2.0			
1199		Service/Repair of equipment:					
		Motor, Gearbox and Mixer	No	1.0			
		Submersible Vortex Pump and Motor	No	2.0			
		Reconditioning of equipment:					
		Motor, Gearbox and Mixer	No	1.0			
		Submersible Vortex Pump and Motor capable of pumping raw sewage, which will include replacing all movable parts including replacing all bearings and the impeller with a stainless steel impeller.	No	1.0			
		Installation, testing and commissioning of equipment:					
		Motor, Gearbox and Mixer	No	1.0			
		Submersible Vortex Pump and Motor	No	2.0			
1199.5	DF.01	CHLORINE DOSING EQUIPMENT					
	DF.02	Decommissioning and removal of dosing equipment	No	1.0			
	DF.03	Servicing of dosing equipment	No	1.0			
		Installation, testing and commissioning of dosing equipment	No	1.0			
1119.7	SB 06.01	OPERATING AND MAINTENANCE WORKS:					
		Update the existing operating and maintenance manual to submit a complete set of operating and maintenance manuals:					
Total Carried Forward							

INSTALLATION A11: WATER TREATMENT WORKS AND SEPTIC TANKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 Water Treatment Works: Update existing Operating and Maintenance Manual for 2 Ports of Entry	PC Sum	1.0		30,000	00
		.02 Chemical for water treatment works/disinfection of overflows	Month	36.0		36,000	00
		.13 Management of all septic tanks as per engineer instruction	PC Sum	1.0		200,000	00
		.14 Operation and maintenance of Septic tanks	Month	36.0		36,000	00
		.15 Management of borehole pumpstations as per engineer instructions	PC Sum	1.0		200,000	00
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION B1: MANDATORY PERIODIC SERVICING					
B100		MANDATORY PERIODICAL SERVICING GROBLERSBRIDGE					
	SA.01	.01 Logging and recording of all water meter readings on a monthly basis	Month	36.0			
	SA.02	.02 Logging and recording of all electricity meter readings on a monthly basis	Month	36.0			
	SA.03	.03 Potable water quality tests to be performed by a SANAS accredited laboratory (approved authorized person) on a monthly basis	Month	36.0			
	SA.04	.04 Waste water effluent quality tests to be carried out by an approved	No	12.0			
	SA.05	.05 Annual servicing of all fire hydrants	No	3.0			
	SA.06	.06 Rodents termites and pest control (internal) (1076m2)	No	9.0			
	SA.07	.07 Rodents termites and pest control (internal) (69600m2)	No	9.0			
		.08 Testing equipment for domestic/drinking water (3 times per year)	set	1.0			
		.09 Testing equipment for wastewater treatment plant (3 times per year)	set	1.0			
		.10 Cleaning and sterilization of all storage tanks (frequency)	No	6.0			
		.07 Operation of installations					
		.01 Chlorination of domestic water	Month	36.0			
		.02 Chemical for wastewater treatment works/disinfection of overflows	Month	0.0			
		.03 Cleaning of all septic tanks	No	3.0			
		.04 Operation of septic tanks	Month	36.0			
		05 Operation of borehole pumpstations	Month	36.0			
B100.1		MANDATORY PERIODICAL SERVICING - STOCKPOORT					
	SA.01	01 Logging and recording of all water meter readings on a monthly basis	Month	36.0			
	SA.02	.02 Logging and recording of all electricity meter readings on a monthly basi	Month	36.0			
	SA.03	.03 Potable water quality tests to be performed by a SANAS accredited laboratory (approved authorized person) on a monthly basis	Month	36.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SA.04	.04 Waste water effluent quality tests to be carried out by an approved	No	12.0			
	SA.05	.05 Annual servicing of all fire hydrants	No	3.0			
	SA.06	.06 Rodents termites and pest control (internal) (5300m2)	No	9.0			
	SA.07	.07 Rodents termites and pest control (internal) (150000m2)	No	9.0			
	SA.08	.08 Testing equipment for domestic/drinking water (3 times per year)	set	1.0			
	SA.09	.09 Testing equipment for wastewater treatment plant (3 times per year)	set	1.0			
	SA.10	.10 Cleaning and sterilization of all storage tanks (frequency)	No	6.0			
	SA.11	.07 Operation of installations					
	SA.12	.01 Chlorination of domestic water	Month	36.0			
	SA.13	.02 Chemical for wastewater treatment works/disinfection of overflows	Month	36.0			
	SA.14	.03 Cleaning of all septic tanks	No	6.0			
	SA.15	.04 Operation of septic tanks	Month	36.0			
	SA.16	.05 Operation of borehole pumpstations	Month	36.0			
B100.5		Payment reduction					
	SA.06	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.07	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.08	.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	5.0			
Total Carried Forward To Summary							

INSTALLATION C1: GROBLERSBRIDGE PLUMBING, DRAINAGE AND WET SERVICES-RESIDENTIAL AREA - ROUTINE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C1: GROBLERSBRIDGE PLUMBING, DRAINAGE AND WET SERVICES-RESIDENTIAL AREA					
C100.0		MAINTENANCE OF PLUMBING, DRAINAGE AND WET SERVICES					
	SA.01	Maintenance of completed installation:					
	SA.02	.01 Plumbing, drainage and wet services installation	point	360.0			
	SA.03	The maintenance scope is described in technical specifications: AA, PAA, CF, EG, KA					
C100.1	SA.04	Payment reduction					
	SA.05	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.06	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.07	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No		6,987.50		
Total Carried Forward To Summary							

INSTALLATION C2 : GROBLERSBRIDGE FENCING, CLEANING AND SITE KEEPING ROUTINE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C2 : GROBLERSBRIDGE FENCING, CLEANING AND SITE KEEPING ROUTINE MAINTENANCE WORKS					
		MAINTENANCE OF FENCING AND GATES					
	SA.01(LI)	Maintenance of a completed installation:					
		.01 Fencing and Gates	points	360.0			
		The maintenance scope is described in technical specification: CC					
		MAINTENANCE OF SITE KEEPING INSTALLATION					
		Maintenance of a completed installation:					
	SA.01(LI)	.01 Cleaning of site, removal of waste and cutting grass	points	360.0			
		The maintenance scope is described in technical specifications: CG, CJ					
		MAINTENANCE OF CLEANING OF BUILDINGS					
	SA.01	Maintenance of a completed installation:					
		.01 Cleaning of Buildings	points	360.0			
		The maintenance scope is described in technical specifications: CJ					
		Payment reduction:					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
Total Carried Forward To Summary							

INSTALLATION C3: GROBLERSBRIDGE BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
		INSTALLATION C3: GROBLERSBRIDGE BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK					
C300.0	SA.01	MAINTENANCE OF BULK WATER AND EXTERNAL WATER RETICULATION					
		Maintenance of completed installation:					
C300.1		.01 Bulk water and External water	point	360.0			
		The maintenance scope is described in technical specifications: CE,CI,DA,DL,DN,EK,FN KA					
C300.2	SA.04	Payment reduction					
	SA.05	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.06	.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-107.50		
	SA.07	.03 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No		8,062.50		
Total Carried Forward To Summary							

INSTALLATION C4: GROBLERSBRIDGE - ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE OF

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C4: GROBLERSBRIDGE ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE OF					
C400.0		MAINTENANCE OF ROADS AND STORMWATER DRAINAGE					
	SA.01	Maintenance of completed installation:					
C400.1		.01 Roads and stormwater	point	360.0			
		The maintenance scope is described in technical specifications: CA, CB					
C400.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-107.50		
C400.3		Road Markings					
	CA.08.01	.01 Retro-reflective road- marking paint					
		01 Longitudibal lines:					
		(i) 100 mm wide broken or unbroken lines, white, yellow or red	m	1,500.0			
		.02 Transverse lines and other					
		(i) Broken or unbroken lines, white or yellow.	m2	25.0			
		(ii) Lettering and symbols, white or yellow, repainting existing markings	m2	95.0			
		(iii) Traffic island markings, white or yellow repainting existing markings	m2	130.0			
	CA.08.02	.02 Setting out and premarking of lines (excluding traffic island markings, lettering and symbols)	km	3.0			
Total Carried Forward To Summary							

INSTALLATION C5: STOCKPOORT- PLUMBING, DRAINAGE AND WET SERVICES - ROUTINE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C5: STOCKPOORT - PLUMBING, DRAINAGE AND WET SERVICES - ROUTINE MAINTENANCE WORKS					
C500.0		MAINTENANCE OF PLUMBING, DRAINAGE AND WET SERVICES					
	SA.01	Maintenance of completed installation:					
		.01 Plumbing, drainage and wet services instalation	point	360.0			
		The maintenance scope is described in technical specifications: AA,PAA,CF,EG,KA					
C500.1		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,000.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-100.00		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-100.00		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No		6,987.50		
Total Carried Forward To Summary							

INSTALLATION C6: STOCKPOORT- FENCING, GATES CLEANING AND SITE KEEPING - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
		INSTALLATION C6: STOCKPOORT- FENCING, GATES CLEANING AND SITE KEEPING - ROUTINE MAINTENANCE WORK					
C600.0		MAINTENANCE OF FENCING AND GATES					
	SA.01	Maintenance of a completed installation:					
C600.1		.01 Fencing and Gates	points	360.0			
		The maintenance scope is described in technical specification: CC					
		MAINTENANCE OF SITE KEEPING INSTALLATION					
		Maintenance of a completed installation:					
C600.2	SA.02	.01 Cleaning of site, removal of waste and cutting grass	points	360.0			
		The maintenance scope is described in technical specifications: CG, CJ					
		MAINTENANCE OF CLEANING OF BUILDINGS					
		Maintenance of a completed installation:					
C600.3		.01 Cleaning of Buildings	points	360.0			
		The maintenance scope is described in technical specifications: CJ					
C600.4		Payment reduction:					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time	Days	-1,000.0			
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time	Days	-100.0			
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time	Days	-100.0			
Total Carried Forward To Summary							

INSTALLATION C7: STOCKPOORT- BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C7: STOCKPOORT- BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK					
C700.0		MAINTENANCE OF BULK WATER AND EXTERNAL WATER RETICULATION					
		Maintenance of completed installation:					
C700.1	SA.01	.01 Bulk water and External water	point	360.0			
		The maintenance scope is described in technical specifications: CE,CI,DA,DL,DN,EK,FN KA					
C700.2		Payment reduction					
	SA.04	Payment reduction due to exceeding of maximum allowable down-time	Days	-1,000.0			
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time	Days	-100.0			
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time	Days	-100.0			
Total Carried Forward To Summary							

INSTALLATION C8: STOCKPOORT- ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C8: STOCKPOORT- ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE WORK					
C800.0		MAINTENANCE OF ROADS AND STORMWATER DRAINAGE					
	SA.01	Maintenance of completed installation:					
C800.1		.01 Roads and stormwater	point	360.0			
		The maintenance scope is described in technical specifications: CA, CB					
C800.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
C800.3		Road Markings					
		.01 Retro-reflective road- marking paint					
		.01 Longitudibal lines:					
	SA.01	(i) 100 mm wide broken or unbroken lines, white, yellow or red	m	600.0			
		.02 Transverse lines and other					
	SA.02	(i) Broken or unbroken lines, white or yellow.	m2	70.0			
	SA.03	(iii) Traffic island markings, white or yellow repainting existing markings	m2	120.0			
Total Carried Forward To Summary							

INSTALLATION C9: SANITATION/SEPTIC TANKS ROUTINE MAINTENANCE WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION C9: GROBLERSBRIDGE AND STOCKPOORT- SANITATION/SEPTIC TANKS ROUTINE MAINTENANCE WORKS					
C104.0		SANITATION/SEPTIC TANKS					
		Maintenance of completed installation:					
C104.1	SA.01	.01 Waste Water Treatment Works- Septic Tanks	point	360.0			
		The maintenance scope is described in technical specifications EB,EC, EF, EJ, EK					
		Desludge of septic tank					
		Septic tanks check, deslude cleaning out and disposal of contents off site. (3 times per year).	No.	12			
Total Carried Forward To Summary							

INSTALLATION E1: GROBLERSBRIDGE - BUILDING ELECTRICAL-OPERATIONAL AREA - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E1: GROBLERSBRIDGE - BUILDING ELECTRICAL-OPERATIONAL AREA - ROUTINE MAINTENANCE WORK					
C109.0		MAINTENANCE OF BUILDING ELECTRICAL SERVICES					
		Maintenance of completed installation:					
C109.1	SA.01	.01 Building electrical services	point	360.0			
		The maintenance scope is described in technical specifications: AA, PAA,					
C109.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	2.0			
Total Carried Forward To Summary							

INSTALLATION E2: GROBLERSBRIDGE - BUILDING ELECTRICAL - RESIDENTIAL AREA - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E2: GROBLERSBRIDGE - BUILDING ELECTRICAL - RESIDENTIAL AREA - ROUTINE MAINTENANCE WORK					
C110.0		MAINTENANCE OF BUILDING ELECTRICAL SERVICES					
		Maintenance of completed installation:					
C110.1	SA.01	.01 Building electrical services	point	360.0			
		The maintenance scope is described in technical specifications: AA, PAA,					
C110.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	3.0			
Total Carried Forward To Summary							

INSTALLATION E3: GROBLERSBRIDGE - STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E3: GROBLERSBRIDGE - STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK					
C111.0		MAINTENANCE OF STANDBY POWER INSTALLATION					
	SA.01	Maintenance of completed installation:					
C111.1		Standby Power installation	point	360.0			
		The maintenance scope is described in technical specifications: HB					
C111.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	5.0			
		Mandatory periodical services not included in preventative maintenance					
		GENERATOR					
	HB 10.03.02	Service old 180 kVA genset	number	2.0			
		Service new 250 kVA genset	number	1.0			
	HB 10.03.03	Service CAT diesel engine 300kVA unit	number	3.0			
	HB 10.03.08	Supply diesel fuel	litre	10,000.0			
	HB 10.03.12	Filter Cartridge for MK3 fuel water separator	number	3.0			
	HB 10.03.12	Filter Cartridge for MK4 fuel water separator	number	3.0			
	HB 11.03.01	SERVICE UPS					
		01 Tower 110 10kva unit	number	2.0			
Total Carried Forward To Summary							

INSTALLATION E4: GROBLERSBRIDGE - EXTERNAL LIGHTING INSTALLATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E4: GROBLERSBRIDGE - EXTERNAL LIGHTING INSTALLATION - ROUTINE MAINTENANCE WORK					
C112.0		MAINTENANCE OF EXTERNAL LIGHTING INSTALLATION					
		Maintenance of completed installation:					
C112.1	SA.01	.01 External Lighting Installation	point	360.0			
		The maintenance scope is described in technical specifications: HB					
C112.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
C112.3		AREA LIGHTING SYSTEM - REPAIR CONTROL AREA					
	HE 09.03	Re-lamp luminiare:					
	HE 09.03(a)	.01 400W HPS Floodlight	number	12.0			
		.02 250W HPS Floodlight	number	5.0			
		.03 250W HPSE Streetlight	number	2.0			
	HE 09.03(b)	Service Luminaire					
		.01 400W HPS Floodlight	number	12.0			
		.02 250W HPS Floodlight	number	5.0			
		.03 250W HPSE Streetlight	number	2.0			
	HE 09.03(f)	Replace Luminaire					
		.01 Luminaire 400W HPS Floodlight	number	2.0			
		.02 250W HPS Floodlight	number	1.0			
Total Carried Forward							

INSTALLATION E4: GROBLERSBRIDGE - EXTERNAL LIGHTING INSTALLATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.03 250W HPSE Streetlight	number	1.0			
		Service area light pole	number	5.0			
C112.4	HE 09.03(e)	Replace arealight pole					
		01 9 Meter Wooden pole	number	1.0			
		.02 9 Meter Fibreglass pole	number	1.0			
		Replace pole mounted brackets					
		01 Floodlight mounting for double floodlights	number	2.0			
C112.5	HE 09.03(g)	SECURITY FENCE LIGHTING SYSTEM					
		Re-lamp luminaire:					
		.01 250W HPS Floodlight	number	41.0			
	HE 10.03(b)	Service Luminaire					
		.01 250W HPS Floodlight	number	41.0			
		Replace luminaire					
	HE 10.03(e)	01 250W HPS Floodlight	number	2.0			
		Service Security light pole	number	41.0			
	HE 11.03(a)	Replace Security light pole					
		01 7m Wooden pole Floodlight	number	3.0			
	HE 11.03(d)	Junction boxes including pole mount brackets					
		.01 Junction boxes IP65 (Enclosure) 1.5mm thick 3CR12 stainless steel, 250mm high x 175mm wide x 75 mm deep complete with cable entry gland plates, mounting plates and pole mounting kit.	number	2.0			
C112.6	HE 11.03	STREET LIGHTING HOUSES					
	HE 11.03(b)	Re-lamp luminaire:					
		.01 125W MV Post Top luminaire	number	36.0			
	HE 11.03(c)	Service Luminaire					
Total Carried Forward							

INSTALLATION E4: GROBLERSBRIDGE - EXTERNAL LIGHTING INSTALLATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		.01 125W MV Post Top luminaire	number	36.0			
		Service light pole	number	3.0			
	HE 11.03(d)	Replace luminaire					
		.01 125W MV Post Top luminaire	number	2.0			
	HE 09.03(g)	Replace area light pole					
		.01 3.5 Meter Fibreglass pole	number	4.0			
C112.0	HE 09.03(g)	DISTRIBUTION KIOSKS					
		Service Distribution Kiosk	number	15.0			
		Remove rust and paint kiosk	number	1.0			
		Supply and install padlocks (Key Alike)	number	10.0			
		Replace door hinges	number	2.0			
		Supply and install door handles	number	1.0			
		Replace distribution kiosk (6 way)	number	1.0			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E5: STOCKPOORT- BUILDING ELECTRICAL SERVICES - ROUTINE MAINTENANCE WORK					
C113.0	NERSTON	MAINTENANCE OF BUILDING ELECTRICAL SERVICES					
		Maintenance of completed installation:					
C113.1	SA.01	.01 Building electrical services	point	360.0			
		The maintenance scope is described in technical specifications: AA, PAA,					
C113.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	3.0			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E6: STOCKPOORT - BUILDING ELECTRICAL - RESIDENTIAL AREA - ROUTINE MAINTENANCE WORK					
C110.0		MAINTENANCE OF BUILDING ELECTRICAL SERVICES					
		Maintenance of completed installation:					
C110.1	SA.01	.01 Building electrical services	point	360.0			
		The maintenance scope is described in technical specifications: AA, PAA,					
C110.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days		-107.50		
		Call-out for repair of Emergency Breakdown (24 hours) response.	No	3.0			
Total Carried Forward To Summary							

INSTALLATION E7: STOCKPOORT - STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E7: STOCKPOORT -STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK					
C114.0		MAINTENANCE OF STANDBY POWER INSTALLATION					
		Maintenance of completed installation:					
C114.1	SA.01	.01 Standby Power installation	point	360.0			
		The maintenance scope is described in technical specifications: HB					
C114.2		Payment reduction					
	SA.04	.01 Payment reduction due to exceeding of maximum allowable down-time	Days		-1,075.00		
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
	SA.06	.03 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
		Mandatory periodical services not included in preventative maintenance items listed above:					
C114.3		GENERATOR					
		Service old 57 kVA genset	number	1.0			
		Service new 80 kVA genset	number	1.0			
		Service John Deere diesel engine 70kVA unit	number	3.0			
		Supply diesel fuel	litre	10,000.0			
		Filter Cartridge for MK3 fuel water separator	number	3.0			
		Filter Cartridge for MK4 fuel water separator	number	3.0			
Total Carried Forward To Summary							

INSTALLATION E8: STOCKPOORT - EXTERNAL LIGHTING INSTALLATION- ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION E8: STOCKPOORT-EXTERNAL LIGHTING INSTALLATION-ROUTINE MAINTENANCE WORK					
C115.0	SA.01	MAINTENANCE OF EXTERNAL LIGHTING INSTALLATION					
		Maintenance of completed installation:					
C115.1		.01 External Lighting Installation	point	360.0			
		The maintenance scope is described in technical specifications: HB					
C115.2	SA.04	Payment reduction					
		.01 Payment reduction due to exceeding of maximum allowable down-time	Days		-1,075.00		
		.02 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
		.03 Payment reduction due to exceeding of maximum allowable down-time	Days		-107.50		
C115.3	SA.01	AREA LIGHTING, SYSTEM - REPAIR CONTROL AREA					
		Re-lamp luminiare:					
		.01 400W HPS Floodlight	number	1.0			
		.02 250W HPS Floodlight	number	12.0			
		.03 250W HPSE Streetlight	number	2.0			
		Service Luminaire					
		.01 400W HPS Floodlight	number	1.0			
		.02 250W HPS Floodlight	number	12.0			
		.03 250VV HPSE Streetlight	number	2.0			
		Replace Luminaire					
		.02 250W HPS Floodlight	number	1.0			
		.03 250W HPSE Streetlight	number	1.0			
		Service area light pole	number	10.0			
		Replace arealight pole					
Total Carried Forward							

INSTALLATION E8: STOCKPOORT - EXTERNAL LIGHTING INSTALLATION- ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		.01 9 Meter Wooden pole	number	1.0			
		.02 7 Meter Fibreglass pole	number	2.0			
		Replace pole mounted brackets					
		.01 Floodlight mounting for double floodlights	number	2.0			
C115.4	SA.01	SECURITY FENCE LIGHTING SYSTEM					
		Re-lamp luminaire:					
		.01 250W HPS Floodlight	number	20.0			
		Service Luminaire					
		.01 250W HPS Floodlight	number	20.0			
		Replace luminaire					
		01 250W HPS Floodlight	number	1.0			
		Service Security light pole	number	20.0			
		Replace Security light pole					
		.01 7m Wooden pole Floodlight	number	3.0			
		Junction boxes including pole mount brackets					
		.01 Junction boxes IP65 (Enclosure) 1.5mm Thick 3CR12 stainless steel, 250mm high x 175mm wide x 75 mm deep complete with cable entry gland plates, mounting plates and pole mounting kit.	number	2.0			
C115.5	SA.01	STREET LIGHTING HOUSES					
		Re-lamp luminaire:					
		.01 125W MV Streetlight	number	5.0			
		.02 125W MV Post Top luminaire	number	13.0			
		Service Luminaire	number	5.0			
		.02 125W MV Post Top luminaire	number	13.0			
		Service light pole	number	5.0			
Total Carried Forward							

INSTALLATION E8: STOCKPOORT - EXTERNAL LIGHTING INSTALLATION- ROUTINE MAINTENANCE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Replace luminaire					
		.01 125W MV Streetlight	number	1.0			
		.02 125W MV Post Top luminaire	number	1.0			
		Replace area light pole					
		.01 3.5 Meter Fibreglass pole	number	2.0			
C115.6	SA.01	DISTRIBUTION KIOSKS					
		Service Distribution Kiosk	number	2.0			
Total Carried Forward To Summary							

INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT - CONVENTIONAL FIRE FIGHTING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT- CONVENTIONAL FIRE FIGHTING EQUIPMENT					
C123.0		CONVENTIONAL FIRE FIGHTING EQUIPMENT					
		MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT AT GROBLERSBRIDGE PORT OF ENTRY					
		Servicing, cleaning, recharging and repair of fire extinguishers:					
C123.1		01 General serving of fire extinguishers					
	SA.01	.01 Check, service and repair activation mechanism (Number of times over 3 years : (3))	number	7.0			
	SA.01	.02 Recharge discharge cylinder (Number of times over 3 years : (3))	number	7.0			
	SA.03	.03 Reseal discharge mechanism (Number of times over 3 years : (3))	number	7.0			
	SA.04	.04 Replace instructions on extinguishers (Number of times over 3 years : (3))	number	2.0			
	SA.05	.05 Replace wall-mounting polished hard wood backboard and bracket (Number of times over 3 years : (3))	number	3.0			
		Mandatory periodical services not included in preventative maintenance items listed above:	Sum	1.0		40,000	00
	SA.01	.01 Statutory annual servicing of DCP and CO2 fire extinguishers: (Number of times over 3 years : (3))	number	17.0			
	SA.02	.02 Fire Fighting Training (Number of times over 3 years : (3))	Sum	1.0		40,000	00
C123.2		MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT AT GROBLERSBRIDGE PORT OF ENTRY					
		Servicing, cleaning and repair of fire hydrants					
		01 General Maintenance of the hydrants					
	SA.01	.01 50 mm dia right angle hydrant valves (Number of times over 3 years : (3))	number	4.0			
	SA.01	.02 Replace quick coupling catches (Number of times over 3 years : (3))	number	4.0			
	SA.03	.03 Replace main hydrant seals (Number of times over 3 years : (3))	number	4.0			
	SA.04	.04 Repaint hydrant (Number of times over 3 years : (3))	number	4.0			
C123.3		Servicing, cleaning and repair of fire hose reels:					
		.01 General Maintenance of fire hose reels					
Total Carried Forward							

INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT - CONVENTIONAL FIRE FIGHTING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
	SA.01	01 Fire hose reels with 30 m hoses (Number of times over 3 years : (3))	number	4.0			
	SA.01	.02 Replace 30 m hose (Number of times over 3 years : (3))	number	2.0			
	SA.03	.03 Replace hose drum seal (Number of times over 3 years : (3))	number	1.0			
	SA.04	.04 Replace gland packing and gasket of shut off valve with repairkit (Number of times over 3 years : (3))	number	4.0			
C123.4		Servicing, cleaning, recharging and repair of fire extinguishers:					
		.01 General serving of fire extinguishers					
	SA.01	.01 Check, service and repair activation mechanism (Number of times over 3 years : (3))	number	4.0			
	SA.01	.02 Recharge discharge cylinder (Number of times over 3 years : (3))	number	4.0			
	SA.03	.03 Reseal discharge mechanism (Number of times over 3 years : (3))	number	4.0			
	SA.04	.04 Replace instructions on extinguishers (Number of times over 3 years : (3))	number	4.0			
	SA.05	.05 Replace wall-mounting polished hard wood backboard and bracket (Number of times over 3 years : (3))	number	4.0			
		Mandatory periodical services not included in preventative maintenanceitems listed above:	Sum	1.0		15,000	00
	SA.01	.01 Statutory annual servicing of DCP and CO2 fire extinguishers (Number of times over 3 years : (3))	number	20.0			
	SA.01	.03 Statutory annual servicing of fire hydrants (Number of times over 3 years : (3))	number	4.0			
	SA.03	.04 Statutory annual servicing attire hose reels (Number of times over 3 years : (3))	number	10.0			
	SA.04	.05 Statutory annual servicing of fire booster pump system (Number of times over 3 years : (3))	number	1.0			
	SA.05	.06 Fire Fighting Training (Number of times over 3 years : (3))	PC Sum	1.0		45,000	00
C123.5		MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT AT STOCKPOORT PORT OF ENTRY					
		Servicing, cleaning, recharging and repair of fire extinguishers:					
		.01 General serving of fire extinguishers					
Total Carried Forward							

INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT - CONVENTIONAL FIRE FIGHTING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
	SA.01	.01 Check, service and repair activation mechanism (Number of times over 3 years : (3))	number	7.0			
	SA.02	.02 Recharge discharge cylinder (Number of times over 3 years : (3))	number	7.0			
	SA.03	.03 Reseal discharge mechanism (Number of times over 3 years : (3))	number	7.0			
	SA.04	.04 Replace instructions on extinguishers (Number of times over 3 years : (3))	number	2.0			
		.05 Replace wall-mounting polished hard wood backboard and bracket (Number of times over 3 years : (3))	number	3.0			
C123.6		MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT AT STOCKPOORT PORT OF ENTRY					
		Mandatory periodical services not included in preventative maintenance Items listed above:	PC Sum	1.0	45,000.00	45,000	00
	SA.01	.01 Statutory annual servicing of DCP and CO2 fire extinguishers. (Number of times over 3 years : (3))	number	17.0			
	SA.02	.02 Fire Fighting Training (Number of times over 3 years : (3))	PC Sum	1.0		45,000	00
C123.7		MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT AT STOCKPOORT PORT OF ENTRY					
		Servicing, cleaning and repair of fire hydrants					
		01 General Maintenance of fire hydrants					
	SA.01	.01 80 mm dia right angle hydrant valves (Number of times over 3 years : (3))	number	4.0			
	SA.02	.02 Replace quick coupling catches (Number of times over 3 years : (3))	number	4.0			
	SA.03	.03 Replace main hydrant seals (Number of times over 3 years : (3))	number	4.0			
	SA.04	.04 Repaint hydrant (Number of times over 3 years : (3))	number	4.0			
C123.8		Servicing, cleaning and repair of fire hose reels:					
		.01 General Maintenance of fire hose reels					
	SA.01	.01 Fire hose reels with 30 m hoses (Number of times over 3 years : (3))	number	4.0			
	SA.02	.02 Replace 30 m hose (Number of times over 3 years : (3))	number	4.0			
	SA.03	.03 Replace hose drum seal (Number of times over 3 years : (3))	number	4.0			
Total Carried Forward							

INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT - CONVENTIONAL FIRE FIGHTING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
	SA.04	.04 Replace gland packing and gasket of shut off valve with repairkit (Number of times over 3 years : (3))	number	5.0			
C123.9		Servicing, cleaning, recharging and repair of fire extinguishers:					
		.01 General serving of fire extinguishers					
	SA.01	.01 Check, service and repair activation mechanism (Number of times over 3 years : (3))	number	30.0			
	SA.02	.02 Recharge discharge cylinder (Number of times over 3 years : (3))	number	20.0			
	SA.03	.03 Reseal discharge mechanism (Number of times over 3 years : (3))	number	20.0			
	SA.04	.04 Replace instructions on extinguishers (Number of times over 3 years : (3))	number	15.0			
	SA.05	.05 Replace wall-mounting polished hard wood backboard and bracket (Number of times over 3 years : (3))	number	60.0			
		Mandatory periodical services not included in preventative maintenance items listed above:	Sum	1.0			
	SA.01	.01 Statutory annual servicing of DCP and CO2 fire extinguishers: (Number of times over 3 years : (3))	number	120.0			
	SA.02	.03 Statutory annual servicing of fire hydrants (Number of times over 3 years : (3))	number	8.0			
	SA.03	.04 Statutory annual servicing of fire hose reels (Number of times over 3 years : (3))	number	20.0			
	SA.04	.05 Statutory annual servicing of fire booster pump system (Number of times over 3 years : (3))	number	1.0			
	SA.05	.06 Fire Fighting Training (Number of times over 3 years : (3))	PC Sum	1.0		45,000	00
C123.10		GENERAL INFORMATION LOGGING AND RECORDING FOR ALL PORTS OF ENTRY					
		Logging and recording of operating conditions, maintenance visits, samples, inspections, surveys, tests etc.: as per technical specification					
	SA.01	.01 Conventional fire fighting equipment (Number of times over 3 years : (3))	PC Sum	1.0		45,000	00
	SA.02	Update all as build information and locations of assets					
		.01 Labeling of all conventional fire fighting equipment with identifying tags and recording of details (Number of times over 3 years : (3))	PC Sum	1.0		15,000	00
Total Carried Forward To Summary							

INSTALLATION M2: GROBLERSBRIDGE AND STOCKPOORT- HEATING, VENTILATION AND AIR-CONDITIONING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION M2: GROBLERSBRIDGE AND STOCKPOORT- HEATING, VENTILATION AND AIR-CONDITIONING					
C124.0		HEATING, VENTILATION AND AIR-CONDITIONING					
C124.1		MAINTENANCE OF HEATING, VENTILATION AND AIR-CONDITIONING EQUIPMENT AT GROBLERSBRIDGE PORT OF ENTRY					
		SERVICE AC UNITS					
	SA.01	.01 Clean air intake screen (Number of times over 3 years : (4))	number	60.0			
	SA.02	.02 Replace filters (Number of times over 3 years : (4))	set	60.0			
	SA.03	.03 De-rust neutralize and touch up paint work (Number of times over 3 years : (4))	number	60.0			
	SA.04	.04 Check setting and operation of all pressure switches and reset (Number of times over 3 years : (4))	number	60.0			
	SA.05	.05 Check setting and operation for all safety switches, i.e.. LP&HP (Number of times over 3 years : (4))	number	60.0			
	SA.06	.06 Check setting and operation of thermostat (Number of times over 3 years : (4))	number	60.0			
	SA.07	.07 Check running current of fans and compressor and settings and (Number of times over 3 years : (4))	number	60.0			
	SA.08	.08 Check tightness of all electrical terminals (Number of times over 3 years : (3))	number	60.0			
	SA.09	.09 Ensure operation of local and remote isolators (Number of times over 3 years : (4))	number	60.0			
	SA.11	.10 Reposition and strap cables (Number of times over 3 years : (4))	number	20.0			
	SA.12	.11 Carry out a leak test on all refrigeration piping and components (Number of times over 3 years : (4))	number	60.0			
	SA.13	.12 Replace compressor vibration mounts (Number of times over 3 years : (4))	number	60.0			
	SA.15	.13 Check refrigerant charge sight glass being clear or flashing (Number of times over 3 years : (4))	set	60.0			
	SA.16	.14 Clean condensate tray and test drainage operation (Number of times over 3 years : (4))	number	60.0			
	SA.17	.15 Clean evaporator and condenser fan ballads and check unbalance (Number of times over 3 years : (4))	number	60.0			
Total Carried Forward							

INSTALLATION M2: GROBLERSBRIDGE AND STOCKPOORT- HEATING, VENTILATION AND AIR-CONDITIONING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
C124.2		MAINTENANCE OF HEATING, VENTILATION AND AIR-CONDITIONING EQUIPMENT AT STOCKPOORT PORT OF ENTRY					
		SERVICE AC UNITS					
	SA.01	.01 Clean air intake screen (Number of times over 3 years : (4))	number	60.0			
	SA.02	.02 Replace filters (Number of times over 3 years : (4))	set	60.0			
	SA.03	.03 De-rust neutralize and touch up paint work (Number of times over 3 years : (4))	number	60.0			
	SA.04	.04 Check setting and operation of all pressure switches and reset (Number of times over 3 years : (4))	number	60.0			
	SA.05	.05 Check setting and operation for all safety switches, i.e.. LP&HPswitches. oil pressure switch (Number of times over 3 years : (4))	number	60.0			
	SA.06	.06 Check setting and operation of thermostat (Number of times over 3 years : (4))	number	60.0			
	SA.07	.07 Check running cispent of fans and compressor and settings and operation of overloads (Number of times over 3 years : (4))	number	60.0			
	SA.08	.08 Check tightness of all electrical terminals (Number of times over 3 years : (4))	number	60.0			
	SA.09	.09 Ensure operation of local and remote isolators (Number of times over 3 years : (4))	number	60.0			
C124.3		GENERAL INFORMATION LOGGING AND RECORDING FOR ALL PORTS OF ENTRY					
		Logging and recording of operating conditions, maintenance visits, samples, inspections, surveys, tests etc.: as per technical specification					
	SA.01	01 Heating, ventilation and air-conditioning equipment (Number of times over 3 years : (3))	PC Sum	1.0		30,000	00
		Update all as build information and locations of assets					
	SA.02	.01 Labelling of all conventional fire fighting equipment with identifying tags and recording of details (Number of times over 3 years : (3))	PC Sum	1.0		30,000	00
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
		INSTALLATION M3: GROBLERSBRIDGE AND STOCKPOORT- WET SERVICES					
C125.0		WET SERVICES					
C125.1		MAINTENANCE OF WET SERVICES AT GROBLERSBRIDGE PORT OF ENTRY					
		GENERAL SERVICING OF HOT WATER GEYSER UNITS					
	SA.01	.01 Check thermostat temperature levels (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Check pressure release valve (Number of times over 3 years : (3))	number	6.0			
	SA.03	.03 Check water pipe inlet and outlet connections for lime build up (Number of times over 3 years : (3))	number	6.0			
	SA.04	.04 De-rust neutralize and touch up paint work (Number of times over 3 years : (3))	number	6.0			
	SA.05	.05 Check element for lime build up (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Check setting and operation of thermostat (Number of times over 3 years : (3))	number	6.0			
	SA.07	.07 Flush sediment at the bottom of the geyser tank (Number of times over 3 years : (3))	number	6.0			
	SA.08	.06 Check tightnesect all electncal terminals (Number of times over 3 years : (3))	number	6.0			
	SA.09	.09 Check all piping for leaks (Number of times over 3 years : (3))	number	6.0			
	SA.10	.10 Check electrical earthling and protection fuses (Number of times over 3 years : (3))	number	6.0			
C125.2		MAINTENANCE OF WET SERVICES AT GROBLERSBRIDGE PORT OF ENTRY					
		GENERAL SERVICING OF HOT WATER GEYSER UNITS					
	SA.01	.11 Check geyser mountings and braces (Number of times over 3 years : (3))	number	6.0			
C125.3		GENERAL SERVICING OF DRAINAGE					
	SA.01	.01 Check and repair faulty rubber connections - P, S and U Trap drainage connections (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check, repair and/or tighten pipe clamps and couples (Number of times over 3 years : (6))	number	1.0			
	SA.03	.03 Check, repair and/or replace faulty or unrepeatable uPVC Soil and Waste Pipe Fittings (Number of times over 3 years : (6))	number	1.0			
Total Carried Forward							

INSTALLATION M3: GROBLERSBRIDGE AND STOCKPOORT- WET SERVICES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
	SA.04	.04 Check, repair and/or faulty or damaged uPVC Soil and Waste Pipe Pipes (Number of times over 3 years : (6))	number	1.0			
	SA.05	.05 Check drainage for blocking and perform unblocking and cleaning procedures (Number of times over 3 years : (6))	number	1.0			
C125.4		GENERAL SERVICING OF DOMESTIC WATER PLUMBING AND PIPING					
	SA.01	.01 Check and repair faulty pipework and plumbing with cracks and leaks (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check, repair and clean pipework and plumbing with lime build-up and (Number of times over 3 years : (6))	number	1.0			
	SA.03	.03 Check and repair faulty pipework and plumbing connections, seals and rubbers for leaks. grime build up and wears and tear (to outlet taps to (Number of times over 3 years : (6))	number	1.0			
	SA.04	.04 Check and repair faulty valves, (ball, non-return, gate valves etc..) (Number of times over 3 years : (6))	number	1.0			
C125.5	SA.05	GENERAL SERVICING, REPAIR, DISTAINING AND DISINFECTING OF					
	SA.01	.01 Check and clean water closet (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check and repair cistern type flushing mechanism (Number of times over 3 years : (6))	number	1.0			
	SA.03	.03 Check and clean hand wash basins (Number of times over 3 years : (6))	number	1.0			
	SA.04	.04 Check and clean urinal (Number of times over 3 years : (6))	number	1.0			
	SA.05	.05 Check and clean brassware (Number of times over 3 years : (6))	number	1.0			
	SA.06	.06 Check and clean stainless steel laundry basins (Number of times over 3 years : (6))	number	1.0			
C125.6		MAINTENANCE OF WET SERVICES AT STOCKPOORT PORT OF ENTRY					
		GENERAL SERVICING OF HOT WATER GEYSER UNITS					
	SA.01	.01 Check thermostat temperature levels (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Check pressure release valve (Number of times over 3 years : (3))	number	6.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SA.03	.03 Check water pipe inlet and outlet connections for lime build up (Number of times over 3 years : (3))	number	6.0			
	SA.04	.04 De-rust neutralize and touch up paint work (Number of times over 3 years : (3))	number	6.0			
	SA.05	.05 Check element for lime build up (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Check setting and operation of thermostat (Number of times over 3 years : (3))	number	6.0			
	SA.07	.07 Flush sediment at the bottom of the geyser tank (Number of times over 3 years : (3))	number	6.0			
	SA.08	.08 Check tightness of all electrical terminals (Number of times over 3 years : (3))	number	6.0			
	SA.09	.09 Check all piping tor leaks (Number of times over 3 years : (3))	number	6.0			
	SA.11	.10 Check electrical earthling and protection fuses (Number of times over 3 years : (3))	number	6.0			
	SA.12	.11 Check geyser mountings and braces (Number of times over 3 years : (3))	number	6.0			
C125.7		GENERAL SERVICING OF DRAINAGE					
	SA.01	.01 Check and repair faulty rubber connections - P, S and U Trap drainage connections (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check, repair and/or tighten pipe clamps and couples (Number of times over 3 years : (6))	number	1.0			
	SA.03	.03 Check, repair and/or replace faulty or unrepeatable uPVC Soil and Waste Pipe Fittings (Number of times over 3 years : (6))	number	1.0			
	SA.04	.04 Check, repair and/or faulty or damaged uPVC Soil and Waste Pipe Pipes (Number of times over 3 years : (6))	No.	1.0			
	SA.05	.05 Check drainage for blocking and perform unblocking and cleaning procedures (Number of times over 3 years : (6))	number	1.0			
C125.8		GENERAL SERVICING OF DOMESTIC WATER PLUMBING AND PIPING					
	SA.01	.01 Check and repair faulty pipework and plumbing with cracks and leaks (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check, repair and clean pipework and plumbing with lime build-up and corrosion (Number of times over 3 years : (6))	number	1.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SA.03	.03 Check and repair faulty pipework and plumbing connections, seals and rubbers for leaks, grime build up and wears and tear (to outlet taps to various equipment) (Number of times over 3 years : (6))	number	1.0			
	SA.04	.04 Check and repair faulty valves, (ball, non-return, gate valves etc..) (Number of times over 3 years : (6))	number	1.0			
C125.9		MAINTENANCE OF WET SERVICES AT 2 PORT OF ENTRY GENERAL SERVICING, REPAIR, DISTAINING AND DISINFECTING OF SANITARYWARE					
	SA.01	.01 Check and clean water closet (Number of times over 3 years : (6))	number	1.0			
	SA.02	.02 Check and repair cistern type flushing mechanism (Number of times over 3 years : (6))	number	1.0			
	SA.03	.03 Check and clean hand wash basins (Number of times over 3 years : (6))	number	1.0			
	SA.04	.04 Check and clean urinal (Number of times over 3 years : (6))	number	1.0			
	SA.05	.05 Check and clean brassware (Number of times over 3 years : (6))	number	1.0			
	SA.06	.06 Check and clean stainless steel laundry basins (Number of times over 3 years : (6))	number	1.0			
C125.10		GENERAL SERVICING, REPAIR, DISTAINING AND DISINFECTING OF SANITARYWARE					
	SA.06	.01 Check and clean water closet (Number of times over 3 years : (6))	number	1.0			
	SA.07	.02 Check and repair cistern type flushing mechanism (Number of times over 3 years : (6))	number	1.0			
	SA.08	.03 Check and clean hand wash basins (Number of times over 3 years : (6))	number	1.0			
	SA.09	.04 Check and clean urinal (Number of times over 3 years : (6))	number	1.0			
	SA.11	.05 Check and clean brassware (Number of times over 3 years : (6))	number	1.0			
	SA.12	.06 Check and clean stainless steel laundry basins (Number of times over 3 years : (6))	number	1.0			
Total Carried Forward To Summary							

INSTALLATION M4: GROBLERSBRIDGE AND STOCKPOORT- KITCHEN AND BOREHOLE INSTALLATIONS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION M4: KITCHEN AND BOREHOLE INSTALLATIONS	%	0.00			
C126.0		SUPPLEMENTARY INSTALLATIONS					
C126.2		MAINTENANCE OF KITCHENETTES AT GROBLERSBRIDGE PORT OF ENTRY					
		MAINTENANCE AND REPAIRS OF KITCHENETTES					
	SA.01	.01 Varnishing wooden cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Powder coating steel cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.03	.03 Tightening of loose screws, replacing hinges and loose snap fittings (Number of times over 3 years : (3))	number	6.0			
	SA.04	.04 Sealing and filling gorges and open areas on wooden cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.05	.05 Smoothening rough and jagged edges on wooden cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Replacing cabinet doors, parts and tops (Number of times over 3 years : (3))	number	6.0			
	SA.07	.07 Repairing and/or replacing built-in sinks (Number of times over 3 years : (3))	number	6.0			
	SA.08	.08 Repairing and/or replacing water supply fixtures and fittings (Number of times over 3 years : (3))	number	6.0			
	SA.09	.09 Repairing and/or replacing water drainage fittings (Number of times over 3 years : (3))	number	6.0			
C126.3		MAINTENANCE OF KITCHENETTES AT STOCKPOORT PORT OF ENTRY					
		MAINTENANCE AND REPAIRS OF KITCHENETTES					
	SA.01	.01 Varnishing wooden cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Powder coating steel cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.03	.03 Tightening of loose screws, replacing hinges and loose snap fittings (Number of times over 3 years : (3))	number	6.0			
	SA.04	.04 Sealing and filling gorges and open areas on wooden cabinets (Number of times over 3 years : (3))	number	6.0			
Total Carried Forward							

INSTALLATION M4: GROBLERSBRIDGE AND STOCKPOORT- KITCHEN AND BOREHOLE INSTALLATIONS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SA.05	.05 Smoothening rough and jagged edges on wooden cabinets (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Replacing cabinet doors, parts and tops (Number of times over 3 years : (3))	number	6.0			
	SA.07	.07 Repairing and/or replacing built-in sinks (Number of times over 3 years : (3))	number	6.0			
	SA.08	.08 Repairing and/or replacing water supply fixtures and fittings (Number of times over 3 years : (3))	number	6.0			
	SA.09	.09 Repairing and/or replacing water drainage fittings (Number of times over 3 years : (3))	number	6.0			
C126.5		MAINTENANCE OF BOREHOLE PUMPS AT GROBLERSBRIDGE PORT OF ENTRY MAINTENANCE AND REPAIRS OF BOREHOLE PUMPS					
	SA.01	.01 Check and repair faulty water meter (Number of times over 3 years : (3))	number	1.0			
	SA.02	.02 Check and repair faulty pressure gauges (Number of times over 3 years : (3))	number	1.0			
	SA.03	.03 Check all electrical fittings and connections (Number of times over 3 years : (3))	number	1.0			
C126.6		MAINTENANCE OF BOREHOLE PUMPS AT STOCKPOORT PORT OF ENTRY MAINTENANCE AND REPAIRS OF BOREHOLE PUMPS					
	SA.01	.01 Check and repair faulty water meter (Number of times over 3 years : (3))	number	1.0			
	SA.02	.02 Check and repair faulty pressure gauges (Number of times over 3 years : (3))	number	1.0			
	SA.03	.03 Check all electrical fittings and connections (Number of times over 3 years : (3))	number	1.0			
C126.9		MAINTENANCE OF KITCHEN INSTALLATIONS AT GROBLERSBRIDGE PORT OF ENTRY					
	SA.05	.02 Electrical Stoves					
	SA.01	01 Check, repair and/or replace elecincal power supply connections (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Check, repair and/or replace oven heating elements (Number of times over 3 years : (3))	number	6.0			
	SA.03	.03 Check, repair and/or replace cooker heating plates (Number of times over 3 years : (3))	number	6.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	SA.04	.04 Check, repair and/or replace cooker dials and controls (Number of times over 3 years : (3))	number	6.0			
	SA.05	.05 Clean and polish exterior and oven interior of stove (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Test stove (Number of times over 3 years : (3))	number	6.0			
C126.9		MAINTENANCE OF KITCHEN INSTALLATIONS AT STOCKPOORT PORT OF ENTRY					
	SA.05	.02 Electrical Stoves					
	SA.01	01 Check, repair and/or replace elecincal power supply connections (Number of times over 3 years : (3))	number	6.0			
	SA.02	.02 Check, repair and/or replace oven heating elements (Number of times over 3 years : (3))	number	6.0			
	SA.03	.03 Check, repair and/or replace cooker heating plates (Number of times over 3 years : (3))	number	6.0			
	SA.04	.04 Check, repair and/or replace cooker dials and controls (Number of times over 3 years : (3))	number	6.0			
	SA.05	.05 Clean and polish exterior and oven interior of stove (Number of times over 3 years : (3))	number	6.0			
	SA.06	.06 Test stove (Number of times over 3 years : (3))	number	6.0			
	SA.08	.02 DIESEL TANK MAINTENANCE FOR 2 PORTS OF ENTRY					
	SA.09	.01 Check and repair fuel filter and fuel gauge(Number of times over 3 years : (3))	number	12.0			
	SA.11	.02 Check and repair diesel fuel supply line(Number of times over 3 years : (3))	number	12.0			
Total Carried Forward To Summary							

INSTALLATION M5: GROBLERSBRIDGE AND STOCKPOORT- OPERATIONS OF WATER TREATMENT WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		INSTALLATION M5: OPERATIONS OF WATER TREATMENT WORKS					
C127		DEPARTMENT OF WATER AFFAIRS INCENTIVE BASED REGULATION MANAGEMENT AND ADMINISTRATION					
		Special testing required by the Engineer for all 2 Ports of Entry					
		1. Raw water quality: 24 hour composite sample for composition of water macro-determinants, as well as potential chemical pollutants (quaterly)	set	12.0			
		2. Water effluent quality: full list of determinants as specified in the General Authorisation for disposal of effluent in terms of Section 39 of the National Water Act, Act No 36 of 1998.	set	12.0			
		3. Water effluent quality: monthly compliance testing of macro-determinants as specified in the General Authorisation for disposal of effluent in terms of Section 39 of the National Water Act, Act No 36 of 1998.	set	24.0			
		4. Intra-laboratory testing, blind sample analysis	PC Sum	1.0		100,000	00
		5. Charge required by Contractor on sub item .04 above	%	100,000.0			
		2 Ports of Entry: Potable water quality testing:					
		Special testing required by the Engineer shall include remuneration for all water and wastewater 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:					
		.01 Full SANS 241 (Part 1) set of 38 x chemical, 6 x physical determinants and 5 x micro biological determinants for quarterly water quality risk assessment					
		1 River (raw water)	set	12.0			
		2 Plant effluent/reservoir/tank	set	12.0			
		3 Furthest point of use	set	12.0			
		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 EJ 04.07 and as per SANS 241:2015	set	36.0			
		Potable Microbological water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water delivered to the consumers and distribution system for determinants specified in EJ 04.07 and as per SANS 241:2015	set	36.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Potable water quality tests to be performed by an approved SANAS laboratory on a monthly basis on the water abstracted from a raw water source for determinants specified in EJ 04.07 and as per SANS 241:2015	set	36.0			
		Water Safety and Related Plans for all 2 Ports of Entry					
		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	Sum	1.0			
		Annual revision of Water Safety Plan	No	3.0			
		Water demand management, including loss reduction and water use efficiency business plan	Sum				
		Water Risk Abatement Plan for all 2 Ports of Entry					
		Annual revision of Water Risk Abatement Plan	No	3.0			
C127.1		GROBLERSBRIDGE: WATER TREATMENT WORKS					
		OPERATIONS					
		Process Control Administration and Information Management - Potable Water					
		Operation of information manangement 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 Groblersbridge Port of Entry, and submission to the Client in a format similar to the Department of Water & Sanitation incentive based regulation programmes.	points	360.0			
		Process Control Administration and Information Management - Wastewater					
Total Carried Forward							

INSTALLATION M5: GROBLERSBRIDGE AND STOCKPOORT- OPERATIONS OF WATER TREATMENT WORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Operation as per Technical Specification EM 04.08 comprising Maintain spreadsheet/database with wastewater treatment process control and maintenance information, including but not limited to: raw wastewater flow rates, effluent flow rates, irrigation rates, compliance results, operational process control results, chemical consumption, hour meter readings, volt meter readings, ammeter readings, breakdowns, etc., at Lebombo Port of Entry, and submission to the client in a format similar to the Department of Water & Sanitation incentive based regulation programmes.	points	360.0			
C127.2		OPERATING OF WATER TREATMENT WORKS					
	SF.01	Operating of installation					
		.01 Water Treatment Works	Month	36.0			
		Chemical analyses: see EJ 04.07					
		Monthly reports: see DH 05					
		Laboratory equipment: see EJ 04.03					
		POTABLE WATER QUALITY TESTING					
	EJ 05	.01 Potable water quality tests to be performed by an approved authority on a monthly basis on the water delivered to the consumers.See EJ 04.07	Month	36.0			
	DH.09	TERTIARY TREATMENT FACILITY					
		Supply chemicals for water treatment plant operation:					
		Sodium Hypochlorite	Litres	2,400.0			
C127.3		STOCKPOORT: WATER TREATMENT WORKS					
		OPERATIONS					
		Process Control Administration and Information Management - Potable Water					
		Operation of information manangement 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 Stockpoort Port of Entry, and submission to the Client in a format similar to the Department of Water & Sanitation incentive based regulation programmes.	points	36.0			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R	AMOUNT c
Brought Forward							
		Process Control Administration and Information Management - Wastewater Operation as per Technical Specification EM 04.08 comprising Maintain spreadsheet/database with wastewater treatment process control and maintenance information, including but not limited to: raw wastewater flow rates, effluent flow rates, irrigation rates, compliance results, operational process control results, chemical consumption, hour meter readings, volt meter readings, ammeter readings, breakdowns, etc., at Stockpoort Port of Entry, and submission to the client in a format similar to the Department of Water & Sanitation incentive based regulation programmes.	points	36.0			
C127.4		OPERATING OF WATER TREATMENT WORKS					
	SF.01	Operating of installation					
		.01 Water Treatment Works	Month	36.0			
		Chemical analyses: see EJ 04.07					
		Monthly reports: see DH 05					
		Laboratory equipment: see EJ 04.03					
		POTABLE WATER QUALITY TESTING					
	EJ 05	.01 Potable water quality tests to be performed by an approved authority on a monthly basis on the water delivered to the consumers.See EJ 04.07	Month	36.0			
	DH.09	TERTIARY TREATMENT FACILITY					
		Supply chemicals for water treatment plant operation:					
		Sodium Hypochlorite	Litres	2,400.0			
		POTABLE WATER QUALITY TESTING					
	EJ 05	.01 Potable water quality tests to be performed by an approved authority on a monthly basis on the water delivered to the consumers.See EJ 04.07	Month	36.0			
C127.12	DH.09	TERTIARY TREATMENT FACILITY					
		Supply chemicals for water treatment plant operation:					
		Sodium Hypochlorite	Litres	1,000.0			
Total Carried Forward To Summary							

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL,MECHANICAL,ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS
BILL OF QUANTITIES

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	PRELIMINARY AND GENERAL	
2	CONTRACT PARTICIPATION GOAL (CPG) AND CIDB BUILD PROGRAMME	
3	INSTALLATION A1: STRUCTURAL AND BUILDING CORRECTIVE MAINTENANCE WORKS	
4	INSTALLATION A2: PLUMBING,DRAINAGE AND SEWER NETWORK CORRECTIVE MAINTENANCE WORKS	
5	INSTALLATION A3: BUILDING ELETRICAL CORRECTIVE MAINTENANCE WORKS	
6	INSTALLATION A4: FENCING,CLEANING AND SITE KEEPING CORRECTIVE MAINTENANCE WORK	
7	INSTALLATION A5: BULK WATER SUPPLY AND EXTERNAL WATER RECTICULATION CORRECTIVE MAINTENANCE WORKS	
8	INSTALLATION A6: ROADS AND STORMWATER DRAINAGE CORRECTIVE MAINTENANCE WORKS	
9	INSTALLATION A7: STANDBY POWER CORRECTIVE MAINTENANCE WORKS	
10	INSTALLATION A8: EXTERNAL LIGHTING CORRECTIVE MAINTENANCE WORKS	
11	INSTALLATION A9: HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS- CORRECTIVE MAINTENANCE WORKS	
12	INSTALLATION A10: CONVENTIONAL FIRE FIGHTINGEQUIPMENT CORRECTIVE MAINTENANCE WORKS	
13	INSTALLATION A11: WATER TREATMENT WORKS AND SEPTIC TANKS	
14	INSTALLATION B1: MANDATORY PERIODICAL SERVICING, MAINTENACE AND OPERATION OF GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY	
15	INSTALLATION C1: GROBLERSBRIDGE PLUMBING, DRAINAGE AND WET SERVICES-RESIDENTIAL AREA - ROUTINE MAINTENANCE WORKS	
16	INSTALLATION C2 : GROBLERSBRIDGE FENCING, CLEANING AND SITE KEEPING ROUTINE MAINTENANCE WORKS	
17	INSTALLATION C3: GROBLERSBRIDGE BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK	
18	INSTALLATION C4: GROBLERSBRIDGE - ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE OF	
19	INSTALLATION C5: STOCKPOORT- PLUMBING, DRAINAGE AND WET SERVICES - ROUTINE MAINTENANCE WORKS	
20	INSTALLATION C6: STOCKPOORT- FENCING, GATES CLEANING AND SITE KEEPING - ROUTINE MAINTENANCE WORK	
21	INSTALLATION C7: STOCKPOORT- BULK WATER AND EXTERNAL WATER RETICULATION - ROUTINE MAINTENANCE WORK	

Total Carried Forward _____

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
Brought Forward		
22	INSTALLATION C8: STOCKPOORT- ROADS AND STORMWATER DRAINAGE ROUTINE MAINTENANCE WORK	
23	INSTALLATION C9: SANITATION/SEPTIC TANKS ROUTINE MAINTENANCE WORKS	
24	INSTALLATION E1: GROBLERSBRIDGE - BUILDING ELECTRICAL-OPERATIONAL AREA - ROUTINE MAINTENANCE WORK	
25	INSTALLATION E2: GROBLERSBRIDGE - BUILDING ELECTRICAL - RESIDENTIAL AREA - ROUTINE MAINTENANCE WORK	
26	INSTALLATION E3: GROBLERSBRIDGE - STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK	
27	INSTALLATION E4: GROBLERSBRIDGE - EXTERNAL LIGHTING INSTALLATION - ROUTINE MAINTENANCE WORK	
28	INSTALLATION E5: STOCKPOORT- BUILDING ELECTRICAL SERVICES - OPERATION AREA -ROUTINE MAINTENANCE WORK	
29	INSTALLATION E6: STOCKPOORT- BUILDING ELECTRICAL SERVICES - RESIDENTIAL AREA - ROUTINE MAINTENANCE WORK	
30	INSTALLATION E7: STOCKPOORT - STANDBY POWER INSTALLATION - ROUTINE MAINTENANCE WORK	
31	INSTALLATION E8: STOCKPOORT - EXTERNAL LIGHTING INSTALLATION- ROUTINE MAINTENANCE WORK	
32	INSTALLATION M1: GROBLERSBRIDGE AND STOCKPOORT - CONVENTIONAL FIRE FIGHTING EQUIPMENT	
33	INSTALLATION M2: GROBLERSBRIDGE AND STOCKPOORT- HEATING, VENTILATION AND AIR-CONDITIONING	
34	INSTALLATION M3: GROBLERSBRIDGE AND STOCKPOORT- WET SERVICES	
35	INSTALLATION M4: GROBLERSBRIDGE AND STOCKPOORT- KITCHEN AND BOREHOLE INSTALLATIONS	
36	INSTALLATION M5: GROBLERSBRIDGE AND STOCKPOORT- OPERATIONS OF WATER TREATMENT WORKS	
	SUBTOTAL	_____
	Add 15% VAT	
Total Carried Forward To Summary Of Schedules		_____
		_____

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL,MECHANICAL,ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

SUMMARY OF SCHEDULES

SCHEDULE	DESCRIPTION	AMOUNT (RAND)
1	BILL OF QUANTITIES	
Total Carried Forward To Summary Of Contracts		

PG-01.1 (EC) SCOPE OF WORKS – GCC 3rd Edition (2015)

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)***		
Tender no:	*H24/014AI*	**Reference no:**	*H24/014AI*

C3. Scope of Works

CONTENTS

C3.1 STANDARD SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

A: GENERAL

PS-1 PROJECT DESCRIPTION
PS-2 DESCRIPTION OF SITE AND ACCESS
PS-3 DETAILS OF CONTRACT
PS-4 CONSTRUCTION AND MANAGEMENT REQUIREMENTS
PS-5 CONSTRUCTION PROGRAMME
PS-6 SITE FACILITIES AVAILABLE
PS-7 SITE FACILITIES REQUIRED
PS-8 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC
PS-9 OCCUPATIONAL HEALTH AND SAFETY
PS-10 ADVERSE WEATHER CONDITIONS
PS-11 FEATURES REQUIRED SPECIAL ATTENTION
PS-12 CERTIFICATES OF PAYMENT
PS-13 CONSTRUCTION IN RESTRICTED AREAS
PS-14 DRAWINGS
PS-15 LEGISLATION
PS-16 INSURANCE AMOUNTS
PS-17 TIMES FOR COMPLETION
PS-18 PRACTICAL COMPLETION
PS-19 PENALTIES
PS-20 NON-WORKING DAYS AND HOURS

B: AMENDMENTS TO THE PARTICULAR SPECIFICATIONS
NONE

C3.3 PARTICULAR SPECIFICATIONS

a) Technical Specifications

AA: Plumbing and drainage installations
AB: Building electrical installations
BA: Roof coverings
BB: Carpentry and joinery for roofs and ceilings
BC: Waterproofing of concrete roofs
BD: Walls
BE: Floors
BF: Pest Control
BH: Fittings
BJ: Paintwork
BK: Concrete corrective maintenance
CA : Roads
CB : Storm water 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
CK : Retaining Walls
DA : Borehole Pump Systems
DB : Potable Water Filtration Systems
DF : Potable Water Disinfection
DH : Operation of Potable Water Works
EG : Septic Tank Systems
EJ : Water Quality Testing
FD : Heating ventilation and air-conditioning systems
FN : Clear-water pump systems
HB : Standby power systems
HC : Low voltage reticulation
HE : Exterior lighting systems
JC : Conventional fire fighting equipment
KA : Water audit

b) **Particular Specifications**

PAA: Plumbing and drainage installation
PBF: Pest Control
PFD: Heating ventilation and air-conditioning systems
PJC: Conventional fire fighting equipment

c) **Additional Specifications**

The following Additional Specifications for work not covered by the SANS 1200 Standardised Specifications or the Technical and Particular Specifications are bound in after the Technical and Particular 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
SJ : COVID-19 Guidelines for Management of Risk on Construction Sites
SN : Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)
SL : Employment and training of youth workers on the expanded public works programme (EPWP) infrastructure projects: nati**onal youth service (NYS**

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:

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:

1. SANS 1200 - Standardised Specifications for Civil Engineering Construction*
2. SANS - Standard Specifications*
3. PW 371- Specification of Materials and Methods to be used. Fourth revision, October 2021.**
4. Guide for architects concerning drainage, water supply and storm water drainage**
5. PW 343- Building specifications for Regional Offices**
6. Standard Specification for the Electrical Equipment and Installation for Mechanical Services, Issue VIII December 2021**
7. Standard Electrical Specifications, January 2021, GPS 24-0367**
8. FPO/G61/3E - Guide for Architects**
7. Standard Specifications for Electrical Installations and Equipment pertaining to Mechanical Installations**
8. SANS 10400 – The application of the National Building Regulations*
9. Department of Public Works – Standard Electrical Specifications**
10. Department of Public Works – Operation and Maintenance Manual for Waste Water Treatment Work: DPW's Basic Requirements (June 2015)**
11. Department of Water Affairs – Green Drop & Blue Drop Requirements (Version 1.0 – 2015)
12. Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under Expanded Public Works Programme**

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:

The project entails the maintenance of facilities and infrastructure at Groblersbridge and Stockpoort Ports of Entry divided into 10 installations. Each installation requires work that may include any one or more of the activities as set out in clause PS3 below: decommissioning, repair work, corrective maintenance, reconditioning, testing, re-commissioning and maintenance during the 36-month Contract. The work also includes compilation of operating and maintenance manuals, key site plans as well as training of User Client operators and all maintenance personnel. Labour intensive practices under the Expanded Public Works Programme (EPWP) and National Youth Service shall be implemented to a value of not less than 10% of the tendered contract amount for wages paid to local labour

NOTE: Repair work, corrective maintenance and maintenance work will be carried out within facilities that are occupied by User Client's personnel and associates

3.5.2 AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATION:

NONE

C3.5.3 PARTICULAR SPECIFICATIONS:

Refer C3.3

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 **Municipal District in Limpopo Province** , 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 **R500 000.00** Eight hundred thousand rands of the total value of materials purchased excluding VAT to be sourced from within **150km** radius of the project site,
(e) Material of at least **30%, R500, 000.00** of the total value of materials purchased excluding VAT to be sourced from within **150km** 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 **Municipal District**,Limpopo Province 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 **30%, R500 000.00** of the total value of materials purchased excluding VAT to be sourced from within **150km** of the project site,
(e) Material of at least **30%, R500 000.00** of the total value of materials purchased excluding VAT to be sourced from within **150km** 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 **Municipal District, Limpopo Province** 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 **R500 000.00** working days. The minimum CPG participation for Targeted Local Labour Skills Development is **30%, R500 000.00**, 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 **30%, R500 000.00** 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 *5%, Max 30%*** 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 insert type of enterprises, e.g. 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 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 **30%, thirty percent** from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners 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 **15. fifteen** Occupational qualifications, trade qualification, work integrated learners – P1 and P2 learners

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

(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, within 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, 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 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 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

(j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners

(k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners 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 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 excavateable material

Hand excavateable 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 excavateable 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 excavateable material including topsoil classified as hand excavateable 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.

A: GENERAL

PS-1 PROJECT DESCRIPTION

The project entails the maintenance of facilities and infrastructure at 2 Ports of Entries divided into 10

installations. Each installation requires work that may include any one or more of the activities as set out in clause PS3 below: decommissioning, repair work, corrective maintenance, reconditioning, testing, re-commissioning and maintenance during the 36-month Contract. The work also includes compilation of operating and maintenance manuals, key site plans as well as training of User Client operators and all maintenance personnel. Labour intensive practices under the Expanded Public Works Programme (EPWP) and National Youth Service shall be implemented to a value of not less than 10% of the tendered contract amount for wages paid to local labour

NOTE: Repair work, corrective maintenance and maintenance work will be carried out within facilities that are occupied by User Client's personnel and associates.

PS-2 DESCRIPTION OF SITE AND ACCESS

The 2 Ports of Entry are the property of the Department of Public Works and Infrastructure. The location of the site is shown on the map included with the drawings. The asset register shall be issued by the appointed contractor. The various installations at the residential area of 2 Ports of Entry were maintained under a maintenance contract, until commencement of this Contract.

The Contractor will be granted access to the installations in phases. As work is being completed by the Construction Project (by others) and handed over to the Department of Public Works and user clients, the Contractor will be given access at which time his maintenance responsibilities shall commence.

Access will be given to completed installations, while other installations may still be incomplete for which no access will be given. Where parts of an installation have been completed, and where such parts, or sub-sets, of an installation is well defined and can be clearly distinguished from the rest of the incomplete installation, access will be given for the part, or sub-sets, only. Remuneration for preventative and breakdown maintenance of the part of the installation will be pro-rata the tendered rate for the complete installation, based on the scope and size of the completed part of the installation.

PS-3 DETAILS OF CONTRACT

All work forming part of this Contract is divided into installations. The work to be performed as part of an installation under this Contract involves the work described below under PS.3.3.

No distinction will be made between maintenance prior to practical completion and maintenance of completed installations for the purpose of this Contract.

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/corrective maintenance 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's 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.

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.

PS-3.1 EXISTING SITES

The sites listed below are included in the contract. All of these are the property of the Department of Public Works. The locations of the various sites are shown on the maps included with the drawings.

PS-3.2 EXISTING FACILITIES

The following table contains a summary of the existing facilities at the various locations involved in the Contract.

PS 3.2.1 ASSET REGISTER FOR 2 PORTS OF ENTRY

The facilities are no limited to following assets. The asset register shall be issued to the appointed service provider

INSTALLATION	DESCRIPTION
Buildings	Residential buildings of 2500m^2
	Operational buildings of 1250m^2
	Operational mobile office of 7m^2
Sanitary, Brassware and sewer network	Taps
	WC Pans and Cisterns
	Urinals including junior flush masters
	Wash hand basins
	Kitchen Sinks
	Wash troughs
	Baths and Showers
	Geysers
	Concrete Septic Tanks
Electrical Equipment	Light Switches
	Socket Outlets
	Light fittings
	Isolators
	Distribution Boards
	Stoves
Fencing and Cleaning Equipment	1.2 m high diamond mesh fence and gates around residences
	Perimeter fence and gates consisting of 3.0 m high welded mesh
	Site keeping area
	Air fresheners toilet Roll holders she bins Soap dispensers
	1.2 m high diamond mesh fence and gates around residences

	Perimeter fence and gates consisting of 3.0 m high welded mesh
Roads, Parking areas and Storm Water	Surfaced road in operational areas
	Paved roads in operation areas
Bulk Water Supply: Plant, Reservoir, Network	
	Borehole pump, flow unknown, no records of operation Submersible River pumps pumping to elevated raw water tank. Raw water mixing pump. flocculation column
INSTALLATION	**DESCRIPTION**
	Clarifier and 1 x intermediate tank Filter pumps feeding 2 x pressurised sand filters 1 x 10,000l intermediate tank Clear water pumps Hypochlorite dosing Pump and mix tank
	Elevated raw water tank Elevated clear water tank
	The water is disinfected by a chlorinator and pumped through two dual media GR6 filters to a 31m³ 12m high elevated sectional steel galvanised storage tank. The filtration rate of the filters is 6m³ per hour. The filtration surface area is 0.38m² per filter. A detailed Pipe and Instrumentation Diagram was drawn from the site inspection, which will be used to guide future work, including repair, operation and maintenance.
Standby Power Generators	Standby power generator
	Automatic Mains Failure Panel
	Fuel Filtration System
External Lighting	Area lights
	Street Lights
	Perimeter Lights
Heating, Ventilation and Air-Conditioning	Mid-wall split air-conditioners
	Wall/window unit air conditioners
Conventional Fire Fighting Equipment	STP fire extinguishers
	CO^2 fire extinguishers
	Fire hose reel
	Sectional steel galvanised ground storage tank for fire pump system
	Fire hydrants & Fire Pump system consisting of a KSB Centrifugal 65- 250 pump capable of delivering 23 l/s at a pressure of 3 bar and is driven by a three-cylinder John Deere diesel engine.

PS 3.3 REPAIR WORK

The emphasis of this Contract is maintenance and operation. Repair and corrective maintenance items as listed below were allowed for work that is required outside the normal maintenance

responsibilities at the on-set of the Contractual access to installations.

The following corrective maintenance work is included at the Various Sites. The items allowed for in the Scope of Works will only be executed upon instruction from the Engineer when so required and when necessary.

PS 3.3.1 Description of Repair Work

The emphasis of this Contract is maintenance and operation. Repair work and corrective maintenance items as listed below were allowed for work that is required outside the normal maintenance responsibilities at the on-set of the Contractual access to installations.

The following corrective maintenance work is included at 2 Port of Entry. The items allowed for in the scope of works will only be executed upon instruction from the Engineer when so required and when necessary.

General Items

- Compile and supply a complete site plan.
- Compliance to OHS Act Requirements, Construction Regulations 2014 and related regulations.
- 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 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 and NYS
- 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 and wastewater 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.
- 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
- 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., at 2 Ports of Entry and submission to the Client in a format similar to the Department of Water Affair's incentive based regulation programmes.

Structural and Building Related Repair Work

- General structural corrective maintenance 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.
- Paint roof timbers and facia boards.
- Paint all previously painted surfaces.
- Replacement of damaged gutters and down pipes.
- Paint work and general structural repairs at the operational buildings.
- Waterproofing to concrete roofs.
- Replace rusted zink units, wall units and base units.
- Replace rotten and damaged wash hand basin cabinets at face brick houses.
- Replace damaged and cracked floor tiles.
- Replace damaged door and door locks
- Painting of roofs and steel structures.

Plumbing, Drainage and Sewer System Related Repair Work

- Replace missing or damaged toilet seats.
- Replace damaged toilet pans and wash hand basins.
- Service cisterns and flush masters.
- Service all taps, valves, etc.
- Service and clean geysers.
- Replace defective geysers end of life cycle.

- De-sludge existing septic tanks and dispose of sludge at approved process works.
- Inspect soak-away systems (French Drains) to remove years of fat build-up that result in much reduced permeability of the soak away. Repair of soak away systems involve opening the drain, removal a thin layer of soil and replacing with imported sand and gravel.
- Mechanically clean sewer lines where required.
- Install cast iron covers at cleaning eyes.
- Rust protects manhole covers and paint with bitumen paint.

Building and Site Electrical Related Repair Work

- Replacement of defective lamps
- Service distribution boards of all buildings and update labelling.
- Provide Certificate of Compliance for all buildings
- Replace faulty/damaged lights, light switches and socket outlets.
- Replace stolen and missing lights, light switches and socket outlets.
- Replace stolen and missing circuit breakers at Large Houses and converted garages.
- Perform mandatory servicing on distribution kiosks.
- Replace brittle and defective light fittings.
- Service main Low Voltage distribution board.

Fencing, Cleaning and Site Keeping Related Repair Work

- Replace damaged solid waste.
- Replace defective ablution block equipment.
- Replace rusted SHE bins and wall bins.
- Replace damaged fences at residential areas.
- Replace damaged posts on perimeter fence.
- Corrosion protection of fence posts and perimeter fence.
- Replace damaged rails and sliding gates at the entrance gates to the Port of Entry.

Bulk Water Supply Systems and External Water Networks Related Repair Work

- Yield test the existing borehole and updated asset information.

- Service existing borehole pump and allow for replacement if required.
- Service existing valves and fittings where required.
- Replace defective water meters if required.
- Service the borehole chlorination systems.
- Compile operation and maintenance manuals.
- Repair underground water distribution pipes if required.
- Service valves.
- Replace filter media for two sand filters.
- Clean and sterilize existing raw water storage tank and clear water storage tank.
- Install gabions at the embankment for stability and surface erosion protection.
- Service/Replace pumps where required.
- Clean existing clarifier.
- Drilling of new boreholes at both Ports
- Repair/replace level sensors where required.
- Provision of RO water plant for both Ports
- Install new dosing pump and service existing pumps.
- Support elevated storage tank walkways at corners.
- Compile Water safety and water demand management plan.

Roads and Storm Water Related Repair Work

- Install indication and identifying signage.
- Road marking and maintenance of road signs.
- Replacement of damaged paving areas where base layers have failed.
- Construction of cattle grids.
- Install asphalt overlay in operational area and seal road.
- Repair damaged section of existing road and pothole repairs.

Standby Power Installations Repair Work

- General servicing of the existing standby generator.

- Provide diesel for the standby generator for the duration of the Contract.
- Service AMF panel.
- Replace battery for standby generator.
- Maintenance of fuel modular filtration system.
- Replacement of filters on fuel water separators
- Supply of generator substation maintenance logbook.
- Replace damaged 2200 litre diesel tank on existing stand.
- Supply, install and commission new 250KVA generator at Groblersbridge and 80KVA at Stockport

External Lighting Related Repair Work

- Service the existing perimeter and area lights.
- Bulk Lamp replacement.
- Perform mandatory servicing on distribution kiosks.
- Replace damaged area light fittings and flood light fittings
- Provision of new electrical poles

Heating, Ventilation and Air Conditioning Related Repair Work

- Service all the existing air conditioners in the various buildings and residential units.
- Replace air conditioners that are at the end of their life cycle.
- Replacement of defective components such as compressors, pc boards, capacitors.
- Replace gas on units, repair gas leaks and top up of gas on units during the maintenance phase.

Conventional Fire Fighting Equipment Related Repair Work

- Service diesel engine on fire pump.
- Replace jockey pressure pump.
- Service entire fire pump system and panel. Check connections in panels and check that the panel operate in automatic mode when pressure drops in the system.
- Replace engine battery and fire panel batteries.
- Repair battery chargers.

- Service valves.
- Service all fire-fighting equipment and replace defective equipment.
- Paint repairs to all fire extinguishers.
- Pressure test fire extinguishers.
- Replace rusted fire extinguisher cabinets and fire hydrant hose cabinets with new stainless steel cabinets to reduce maintenance costs.
- Service fire hydrants and fire hose reel.
- Service and test all pressure switches for fire pump.
- Provide diesel for the diesel driven fire pump for the duration of the Contract.
- Replacement of damaged, faded and brittle signage.
- Install photoluminescent fire escape signage in operational buildings
- Compile and install fire evacuation plans in operational buildings.

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-3.4. MAINTENANCE OF INFRASTRUCTURE

The 36 months maintenance period includes the following installations:

- Structural and Building Works
- Plumbing, Drainage And Sewer Network Building Electrical
- Fencing, Cleaning and Site Keeping
- Bulk Water Supply and External Water Reticulation
- Roads and Storm water Drainage
- Standby Power
- External Lighting
- Heating and Ventilation, Air-Conditioning
- Conventional Fire-Fighting Equipment

PS 3.5 OPERATION OF INFRASTRUCTURE FOR THE CONTRACT PERIOD

Operation is required for 24 hours per day, 7 days per week. The Contractor shall ensure that a competent person is situated at the Port of Entry at all times to manage the operation of the following:

(i) The 36 month operation of the Bulk Water System consisting of the borehole water that is abstracted with submersible pumps. The raw water intake line is currently blocked and water supply to pump sump is through infiltration. Water is pumped from the river into an 82 m^3 raw water elevated steel tank. Water from the raw water tank is measured with an ultrasonic flow meter and pumped with a single raw water pump into a flash mixer. A flocculant is added with a floc dosing pump before flash mixing to allow for coagulation of suspended particles. Flocculation then occurs in a flocculation column. Flocculated water is transferred into a single clarifier to allow for settling of flocculated particles. Settled water is then stored in an intermediate holding tank before being pumped by a duty/stand-by filter pump into two sand filters. Filtered water is measured with a mechanical flow meter and stored in a clear water holding tank. Sodium hypochlorite is added on the outlet from the clear water holding tank and pumped with a duty/stand-by high lift pump into a 31 m3 clear water elevated steel tank. Clear water is measured with a mechanical flow meter and supplied to consumers.

ii) The 36-month operation of the Wastewater treatment works consisting of the septic tanks and French drains

PS 3.6 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 AND MANAGEMENT REQUIREMENTS

The Contractor shall be responsible for minor construction works as part of the corrective maintenance, as set out in the Bill of Quantities and as per relevant specification. The Contractor shall be responsible for all management to do work as indicated in SANS 1200A.

PS 5 CONSTRUCTION PROGRAMME

When drawing up his construction programme, the Contractor shall take into account the time for completion for the corrective maintenance work of each installation as indicated in Clause 5.5.1 as amended in Part 1 of the Contract Data.

If the programme submitted by the Contractor in terms of Clause 5.6.1 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 corrective maintenance 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 9.2 of the General Conditions of Contract as amended in Part 1 of the ContractData.

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 corrective maintenance work on some of the installations in parallel with corrective maintenance work onother installations

The Contractor shall organise his work in such a manner as to cause the minimum inconvenience to the User Client's personnel and operations.

PS-6 SITE FACILITIES AVAILABLE

PS 6.1 CAMPSITE AND STORE ROOM

(a) 2 Ports of Entry

A Site Establishment area is available and will be indicated to the Contractor. The Contractor must provide his own establishment facilities on site.

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 new facilities provide by the Contractor must comply with the South African National Building Regulations and Standards in all aspects.

PS 6.2 WATER, ELECTRICITY AND SEWERAGE

(a) Water supply

Water will be available free of charge but wastage will not be tolerated. Water will be available at specific points not necessarily adjacent to working areas. The Contractor must make his own arrangements for water supply to the working areas. The Contractor must supply his own standard fittings to couple up at the points where water is available.

The usage of water by the Contractor will be measured. The Contractor shall supply metering devices. In case of water shortages the Contractor will be responsible to make his own arrangements until such water shortages are resolved and reinstated to the Contractor.

In the event that water is not available on site, the Contractor shall supply at his own cost water for testing of wet services and where necessary preventative maintenance.

(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. The usage of electricity by the Contractor will be measured. The Contractor shall supply metering devices.

(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 6.3 PARKING FACILITIES

Parking facilities are available on the Site.

PS 7 SITE FACILITIES REQUIRED

PS 7.1 GENERAL

The Engineer and/or his representative will use the existing facilities available at each of the Port of Entry.

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 7.2 OFFICE ACCOMMODATION

The Contractor shall provide within its own site establishment facilities, a suitably furnished office or other venue capable of comfortably accommodating a minimum of twelve (12) 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.

At the onset of the contract the Engineer will identify the site at which the meeting venue is to be provided.

Irrespective the type of material of which the venue is constructed, the Contractor shall ensure that the temperature inside the venue is always between 20ºC and 24ºC.

The site meeting venue shall further comply with and be furnished in accordance with the requirements of Subclause 3.2 of SANS 1200 AB. The Contractor shall maintain the venue/office(s) in accordance with the requirements of Subclause 5.2 of SANS 1200 AB.

Such a venue accommodation shall be provided within the Contractor's site establishment facilities.

PS 7.3 CARPORTS

The Contractor shall provide on Site *one (1)* carport with parking for two vehicles for the exclusive use of the Engineer, in accordance with requirements of Subclause PSAB 3.3 of the Project

Specifications. At the onset of the contract the Engineer will identify the site at which the carport is to be provided.

PS 7.4 SITE MEETING VENUE

The Engineer and/or his representative will use the existing facilities available at each of the Port of Entry.

PS 7.5 CONTRACT NAME BOARDS

A Contract name board will not be required.

PS 7.6 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) Telkom telephones

(i) Number of separate telephone lines (numbers): **Nil**

(ii) Number of telephone handsets required: **Nil**

(b) Cellular telephones

Number of cellular telephones required for a period of 36 months: **One**
The *average* call cost at business rates (over the 36 month contract period) shall not exceed R1 500,00 per month.

PS 7.5 COMPUTER FACILITIES

Not required

PS 7.6 TELEFAX FACILITIES

Not required

PS 7.7 ELECTRICITY SUPPLY FOR THE ENGINEER

All electricity supply to the Engineer's office(s) and laboratory (if applicable), 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 7.8 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 8.14)

PS 7.9 CALL CENTRE

A call centre has been established by the Employer to log, route and monitor incoming breakdown calls.

The call centre is administered centrally and is responsible for the routing of breakdown calls on each contract at the installation. The call centre 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 centre for a relevant contract. The Contractor shall be reimbursed from an amount included in the Bill of Quantities, on written instruction of the Engineer. Operating costs of the call centre 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 centre to cover his expenses in this regard (see payment item PSA 8.12).

PS 8 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC

Requirements for the accommodation of traffic shall be in accordance with the GCC (2015). Where road surfaces and other components of roads are repaired, the Contractor shall plan his work in such a way that existing traffic volumes are accommodated on the same road until work is complete. No service roads shall be constructed for purposes of accommodation of traffic during corrective maintenance,

PS 9 OCCUPATIONAL HEALTH AND SAFETY

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. 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 4.1.1) of the regulations will be issued separately.

The Contractor shall in terms of subclause 2.5.1 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 2014.

Access to the Works will be given after OHS Plan is approved.

PS 10 ADVERSE WEATHER CONDITIONS

Adverse weather conditions shall be managed in terms of additional Clause 2.2, included in the Contract Data.

PS 11 FEATURES REQUIRING SPECIAL ATTENTION

PS 11.1 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 corrective maintenance and maintenance work. The Contractor shall present copies of all correspondence in this regard for discussion at the following site meeting.

PS 11.2 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 belimited.

(b) 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.

c) Access cards to security areas

Should the work fall within a security area, the Contractor must obtain from the Engineer access cards 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 BCOCC or SA Police services.

PS 11.3 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 11.4 FACILITIES TO OTHER CONTRACTORS

In addition to the requirements of Clause 4.8.1 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 11.5 SUBCONTRACTORS

In addition to the requirements of Clause 4.4 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 11.6 SANS SPECIFICATIONS AND CODES OF PRACTICE

All reference in this document to South African Bureau of 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 11.7 MATERIALS

The monthly payment for materials brought onto the Site will only be applicable for corrective

maintenance work and not for routine 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 11.8 BORROW PITS

There will be no designated borrow pits. The Contractor shall utilise the material on Site or import material from commercial sources.

PS 11.9 PROTECTION OF FURNITURE AND EQUIPMENT

Most of the work to be done inside buildings and occupied houses 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 11.10 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 withthe 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 alltimes.

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 ofwork.

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-12 CERTIFICATES OF PAYMENT

The statement to be submitted by the Contractor in terms of Clause 6.10.1 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 papercopies.

All costs for the preparation and submission of the statements shall be borne by the Contractor.

Monthly report submitted with the statement for payment to the Engineer for compliance to EPWP requirements. This report shall be submitted in the provided format and electronically (Excel® format) stating the following details of the local labour utilised on the project for the current month:

- Worker's full name
- Worker's ID Number
- Work performed by the worker
- Rate per hour/day
- Hours worked
- Total paid for month

PS-13 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. No extra payment nor any claim for payment due to these difficulties will beconsidered.

PS-14 DRAWINGS

The Contractor will, in terms of Clause 5.9.1 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 theDrawings.

PS-15 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 6.8.4 of the General Conditions of Contract as amended in Part 1 of the Contract Data.

PS-16 INSURANCE AMOUNTS

The amounts for which the Contractor must insure the Works in terms of Clause 8.6 of Part 1 of the Contract Data are stated in the Agreement.

PS-17 TIMES FOR COMPLETION

Times for completion of work to installations as well as the maintenance down-time for different types of breakdowns are given under Clause 5.5.1 of Part 1 of the Contract Data. The time for completion will start on the date of access to an installation.

PS-18 PRACTICAL COMPLETION

(a) The Contractor shall be entitled in terms of Clause 5.14.1 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:

(i) all materials which are required to be replaced have been replaced and installed to the satisfaction of the Engineer; and

(ii) all corrective maintenance work have been completed.

(b) The Engineer shall issue to the Contractor and the Employer a Certificate of Completion in terms of Clause 5.14.4 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 5.14.4 of the General Conditions of Contract.

PS-19 PENALTIES

Penalties in terms of Clause 5.13.1 of the General Conditions of Contract for late completion of corrective maintenance work to different installations are given under Clause 5.13.1 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 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 corrective maintenance. 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-20 NON-WORKING DAYS AND HOURS

Whenever any special non-working days stated in Clause 1.1.1.12 and Clause 5.8 of Part 1 of the Contract Data fall within the days allowed or stipulated in the Contract in terms of Clause 1.1.1.12 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 operation work, corrective maintenance 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 Client 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 perweek.

B: AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATION:

The following variations and additions to the SANS 1200 Standardised Specifications referred to in the last clause of Portion 1 apply to this Contract. The prefix PS indicates an amendment to SANS 1200. The letters and numbers following these prefixes respectively indicate the relevant Standardised Specification and clause numbers in SANS 1200.

PSA GENERAL

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 1.1.1.22 of the General Conditions of Contract shall for the purpose of this Contract, be regarded as the corrective maintenance work and routine maintenance work as defined in Subclause SA 02.06 of Additional Specification SA: General Maintenance."

(b) 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 corrective maintenance 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 corrective maintenance 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: SANS 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 SANS Specifications shall bear the SANS 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 corrective maintenance and maintenance work

The Contractor shall exercise all the necessary care to prevent damage to known services during corrective maintenance 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, repairs and corrective maintenances 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 corrective maintenances. In urgent cases the Contractor shall take the necessary steps to minimise damage to and interruption of the service. No corrective maintenances 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 corrective maintenances affected. The Contractor shall provide all reasonable

opportunity, access and assistance to persons carrying out alterations or corrective maintenances 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

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 corrective maintenance 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 SANS 1200 AB and in these Project Specifications" and the scope of works in PS 7 and PSAB.
- Implementation of and compliance to labour intensive practices as per Additional Specification SN: Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP): as attached to these Bills of Quantities. This shall include monthly reporting in the prescribed format, monitoring of local labour and compliance with the minimum value of not less than 10% of the tendered contract amount for wages paid to local labour.

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 corrective maintenance 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 corrective maintenance 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 corrective maintenance work.

(c) The final payment, which is 20% of the sum, will be made when the corrective maintenance 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 corrective maintenance work finally completed be more or less than the Bid Sum for corrective maintenance 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 corrective maintenance 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 as per the rate tendered per month for the 36-month contract period.

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) 2 Ports of Entry Repair Phase ..... Unit: Month
(b) 2 Ports of Entry Maintenance Phase ..... 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 corrective maintenance work, excluding value-added tax.

PSA 8.6 PRIME COST ITEMS

REPLACE THIS ITEM WITH THE FOLLOWING:

"PSA 8.6 PRIME COST SUMS:

(a) Description of prime cost sum ..... Unit: PC Sum

(d) 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: m^3

(b) In all other areas..... Unit: m^3

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 :PC 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 Sub clause 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, m^2, 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 corrective maintenance and maintenance 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 centre operating costs for breakdown calls logged .....Unit: PC 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 Engineer.

PSA 8.13 OCCUPATIONAL HEALTH AND SAFETY ..... Unit: sum/month

The bid rate shall include full compensation to the Contractor for compliance with all the requirements of the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. 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 4.1.1) of the regulations will be issued separately.

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.

PSA 8.14 HOUSING FOR THE ENGINEER'S REPRESENTATIVE

(a) Housing for Engineer's representative ..... Unit: PC Sum

b) Charge required by contractor on subitem (a) above ..... Unit: %

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)

PSAB ENGINEER'S OFFICE

PSAB 3 MATERIALS

PSAB 3.1 NAME BOARDS

NO CONTRACT NAME BOARDS ARE REQUIRED FOR THIS CONTRACT

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 m^2 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* "Telkom" *AND ADD THE FOLLOWING AT THE END OF SUBCLAUSE 4.1 OF SANS 1200 AB:*

"In addition to a Telkom telephone and subject to satisfactory transmission and reception quality in the vicinity of the Site, the Contractor shall provide the number of cellular telephones and associated service contracts from a reputable cellular service provider, as specified in Portion 1 of the Project Specifications, for the exclusive use of the Engineer and his staff."

ADD THE FOLLOWING NEW SUBCLAUSES TO CLAUSE 4 OF SANS 1200 AB:

PSAB 4.2 TELEFAX FACILITIES

Subject to the availability of Telkom lines, the Contractor shall provide and install in the Engineer's office referred to in Subclause PSAB 3.2, one plain paper fax machine for the exclusive use of the Engineer and his staff. The Contractor shall provide all consumables such as paper, and ink and toner cartridges as may be necessary for the proper operation of the fax machine.

PSAB 4.3 SURVEY EQUIPMENT

The Contractor shall provide on-site and make available for the exclusive use of the Engineer and his staff, the survey equipment listed in Portion 1 of the Project Specifications.

All survey equipment provided by the Contractor shall be in good condition, properly calibrated and fit for the purpose.

In addition to survey equipment provided by the Contractor for the exclusive use of the Engineer and his staff, the Contractor shall make available for use by the Engineer, the further survey equipment listed in Portion 1 of the Project Specifications, at all times when such is reasonably required by the Engineer and his staff for the purposes of the Contract."

PSAB 5 CONSTRUCTION

PSAB 5.1 TELEPHONE

REPLACE THE CONTENTS OF SUBCLAUSE 5.4 OF SANS 1200 AB WITH THE FOLLOWING:

PSAB 5.1.2 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 corrective maintenance and/or the replacement of components to the handsets of the cellular 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 SANS 1200 SB:

PSAB 5.2 SURVEY EQUIPMENT

All survey equipment provided by the Contractor shall be kept fully serviceable at all times by the Contractor. The Contractor shall have any defective equipment corrective maintenance or replaced at his own cost within 24 hours after notification by the Engineer's staff.

Where required by the Engineer, the Contractor shall at his own cost, promptly arrange for the re-calibration of survey equipment provided."

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

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

2.3.3 TECHNICAL & PARTICULAR SPECIFICATIONS REFER

BOOK 2 OF 2 FOR ALL TECHNICAL AND PARTICULAR SPECIFICATIONS

ADDITIONAL SPECIFICATION

SA GENERAL MAINTENANCE

CONTENTS

SA 01 SCOPE
SA 02 MAINTENANCE REQUIREMENTS SA 03 MAINTENANCE CONTROL
SA 04 COMMUNICATION
SA 05 PERFORMANCE MEASUREMENT SA 06 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 complete 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 various installations at the 2 Ports of Entry formed part of an existing Repair and Maintenance Programme which commenced in November 2016 and ends in November 2020.

No distinction will be made between prior to practical completion and completed installations for the purpose of maintenance.

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 repair rates.

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.

SA 01.01 LIST OF BUILDINGS

All list of buildings shall be issued to the appointed service provider

	DESCRIPTION
	2 PORTS OF ENTRY
	Residential Area
	Large Houses
	Garages Large Houses
	Small Houses
	Rondawels
	Face Brick Houses
	Face Brick Garages
	Small Brick House
	Operational Area
	Pump Room
	Bulk Water
	Storerooms
	Old Cell Block
	Garage
	Storeroom
	Generator Room
	SAPS & Immigraton Building
	SARS Building
	Ablution
	Conference/Scanner Room
	LVI Buildings
	Fire Pump Room
	ICT Room
	Commercial Inspection
	Agriculture Mobile Office

SA 02 MAINTENANCE REQUIREMENTS

SA 02.01 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).

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 02.02 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, inmates (where applicable), 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 02.03 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 02.04 **COMPONENTS INCLUDED IN MAINTENANCE 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 Schedule of Quantities and will each be deemed "an installation". Maintenance, as specified, will be applicable to all of these installations.

- Structural and Building
- Plumbing, Drainage And Sewer Network
- Building Electrical
- Fencing, Cleaning and Site Keeping
- Bulk Water Supply and External Water Reticulation
- : Roads and Storm water Drainage
- Standby Power
- External Lighting
- Heating and Ventilation, Air-Conditioning
- 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 contract to repair certain damaged structural items and to attend to breakdowns that are logged for structural breakdowns. 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's may be claimed for the repair work to damaged structural items.

SA 02.05 **COMMENCEMENT OF MAINTENANCE PERIOD**

Maintenance responsibilities of all individual units, equipment or components thereof, shall commence with access to the installation.

SA 02.06 **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 minimization of breakdowns.

SA 02.07 **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 02.08 **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 02.09 **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 02.02 and SA 02.03.

Site maintenance records shall be submitted at each monthlymeeting.

SA 02.10 **SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL**

SA 02.10.01 **Labour**

Competent personnel that have been trained by the Contractor shall execute all maintenance work.

SA 02.10.02 **Equipment**

All tools and equipment required for maintenance work shall be supplied by the Contractor at his cost (except where otherwise provided).

SA 02.10.03 **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 02.11 **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 03 **MAINTENANCE CONTROL**

SA 03.01 **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 03.02 **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

SA 03.03 **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 04 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 05 PERFORMANCE MEASUREMENT

The Contractor's performance shall be measured against the followingparameters:

SA 05.01 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 05.02 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:

REQUIRED MAINTENANCE	MAXIMUM DOWN-TIME ALLOWED	PAYMENT REDUCTION IF EXCEEDED
Emergency Breakdown	24 Hours	R1 000/day
Ordinary Breakdown	7 days	R100/day
Operational damage repair	7 days	R100/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.

SA 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 maintenance payments for the various installations.

SA 05.03.01 **Score-card**

The Engineer shall inspect each installation monthly. 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 in the manner set out below.
The Contractor shall always have the opportunity to score the maximum points, provided that his preventative and corrective maintenance work comply with the Specifications. The Employer shall be protected against a reduced or unsatisfactory service level and may refuse payment on such points.

SA 05.03.02 **Performance indicators**

Performance indicators shall be selected to measure the Contractor's service level of preventative and corrective maintenance.

The Engineer shall 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 05.03.03 **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 06 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.

The combined tendered rate for ten points (which shall not be less than 10% of the total 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.

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.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 FATAL BREAKDOWN** .....Unit: hours

The unit of measurement shall be the number of hours during which a component of an installation was in a disfunctional condition and required immediate response repairs.

The negative fixed rate shall include full compensation for the User Client's loss in productivity and, multiplied by the number of hours 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 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.05 **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.06 **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.07 **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 sc

DEPARTMENT OF PUBLICWORKS MAINTENANCE SCORE-CARD

CONTRACT NUMBER: WCS .....

CONTRACT:

CONTRACTOR:

ENGINEER:

INSTALLATION:

MONTH: OF **36**

The following components of the installation were selected by the Engineer at the Monthly Maintenance Meeting nr. as performance indicators to be tested according to specification:

1. PERFORMANCE INDICATORS	0	1
1.1		
1.2		
1.3		
1.4		
1.5		
1.6		
1.7		
1.8		
1.9		
1.10		
TOTAL:		

TOTAL SCORE:

D D / M M / Y Y

Engineer's Representative ..... Signature ..... Date

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 FOR MECHANICAL AND ELECTRICAL EQUIPMENT/ INSTALLATIONS AND SITE LAYOUT PLAN(S)

CONTENTS

SB 01 SCOPE
SB 02 PROCEDURE FOR SUBMISSION OF MANUALS
SB 03 FORMAT OF OPERATING AND MAINTENANCE MANUALS SB 04
CONTENTS OF OPERATING AND MAINTENANCE MANUALS SB 05
SCOPE OF SITE LAYOUT PLAN
SB 06 MEASUREMENT AND PAYMENT

SB 01 SCOPE

The Contractor shall be responsible for the acquiring and compilation of complete sets of Operating and Maintenance Manuals for all Mechanical and Electrical equipment and installations. A separate Operating and Maintenance Manual shall be supplied for each installation where required and as defined in the Additional Specification SA: General Maintenance. Existing Operation and Maintenance Manuals shall be revised and updated. Existing manuals that are still serviceable shall be scrutinised and certified correct and appropriate.

The contractor will furthermore be responsible for compiling and updating site layout plan(s).

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)

Where and installation has an existing Operating and Maintenance Manual, the Contractor shall check whether its contents are still applicable and accurate. When drawing up his own Operating and Maintenance Manual for the installation, the Contractor shall incorporate there in all such existing applicable data. The existing Operating and Maintenance Manual shall then be disposed of provided written permission to do so have been obtained from the Engineer.

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 OF OPERATING AND MAINTENANCE MANUALS

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 andthe

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 SCOPE OF SITE LAYOUT PLAN

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.05.01 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.05.02 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.05.02.01 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 012345/1/1 Rev 01

SB.05.02.02 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 011111/1/**CW**/1 Rev 01

SB.05.03 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.05.03.01 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.05.03.02 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.05.03.03 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.05.03.04 Contours

Contours do not form part of the Site Layout Plan.

SB.05.03.05 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.05.03.06 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.05.03.07 **Hatching**

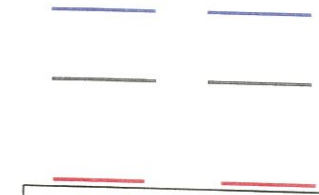
Hatching are angled line patterns to indicate the position of permanent structures. The spacing between lines should be consistent at 45º to the structure. Park Homes must be shown on the plan, but without hatching.

SB.05.03.08 **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.05.03.09 **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.05.03.10 **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.05.03.11 **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.05.03.12 **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.05.03.13 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.05.03.14 **Destinations**

The destination to the nearest town with a pointing arrow should appear on all incoming and outgoing roads.

SB.05.04 **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.05.04.01 **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.05.04.02 **Sewerage Network**

Show the layout of the sewerage network and include thefollowing:

- 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.05.04.03 **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.05.04.04 **Telephone Lines**

Show the position of overhead telephone lines.

SB.05.04.05 **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.05.04.06 **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.05.05 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 followinginformation:

- 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.05.06 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 site layout plan(s) to be submit for approval within 12 months from the start of the contract. If not, a breakdown will be registered with related payment reduction.

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.

SB 06 MEASUREMENT AND PAYMENT

SB 06.01 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 orderto 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 06.02 **Compile and supply a complete site layout 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 layout 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 layout plan.

The site layout plan(s) to be submit for approval within 12 months from the start of the contract. If not, a breakdown will be registered with related payment reduction.

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 OF SCHEDULED SHUTDOWNS
SC 07 MATERIAL AND EQUIPMENT PROCUREMENT AND PROTECTION SC 08
TESTING OF EQUIPMENT PRIORTO RECOMMISSIONING
SC 09 TESTING OF MATERIAL AND EQUIPMENT SPECIFICATIONS AND WORKMANSHIP SC 10
DECOMMISSIONING
SC 11 RECOMMISSIONING, COMMISSIONING AND COMPLETION OF INSTALLATIONS SC 12
PROJECT PARTICULARS: DEFINITION OF INSTALLATIONS AND SYSTEMS
SC 13 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 The Scope of Work.

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 installations, as well as recommissioning work that is part of the routine preventive and corrective maintenance.

SC 01.01 **Occupational Health and Safety Act**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

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 recommissioning of that part.

Each part of an installation 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, brackets, electrical cables and any other temporary equipment and materials to provide a functional link between each repaired and upgraded part of the installation and the parts 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 PLAN

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 plan. This plan 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 Contractor submits the detailed commissioning plan for approval by both the Engineer and the User Client. Commissioning plans shall take all process requirements into account. The detailed commissioning plan shall indicate all actions necessary for:

(1) Decommissioning
(2) Recommissioning of parts of the installation
(3) Commissioning of the installation.

All work deemed necessary for practical completion of the installation shall be indicated on the commissioning plan.

The plan includes a detailed programme which 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 or shutdown.

The following specific actions shall be included in the detailed 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 spools blanked flanges, electrical cables, temporary equipment and materials 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, electrical and communication cable termination and all other work necessary for recommissioning;
(e) Installation of temporary functional links between any two parts of the installation;
(f) Each individual field weld, connections and terminations 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) Detailed tests to confirm the performance of specific equipment, including calibration of all instruments;
(j) Installation and connection of all power and communication cables;
(k) De-aeration of all pipe sections;
(l) Communication between the Contractor, the Engineer, the Employer and the User Client;
(m) Start-up of the complete system, indicating start-up procedures.

Inspection of the prefabricated installation, testing of all equipment and materials prior to final commissioning, pressure testing and non-destructive testing shall be clearly scheduled in the project progress programme.

The detailed commissioning plan clearly indicates the responsible technical staff, with their relevant qualifications and trade skills against each of the tasks on the programme.

The detailed commissioning plan also indicates the methodology for testing, calibration and certifying functional compliance for each component forming part of the installation.

Day 30 tests and instruction/training sessions with the User Client shall be scheduled in the project progress programme.

The Contractor shall submit commissioning checks sheets to the Engineer 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.

Programmes for the Day 1 tests, Day 30 tests and instruction/training sessions with the User Client'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.

SC 04

COMMISSIONING COMMUNICATION CHANNELS

The Contractor shall communicate with the User Client'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:	Engineer Representative
Employer:	Representative of Area Manager
User Client:	Operating and Maintenance Manager.

SC 05

COMMISSIONING RISK CONTROL AND PENALTIES

(a) The safety instructions stipulated by the Occupational Health and Safety Act 85 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.

(c) Payment reductions for exceeding the maximum permissible down-time during shutdown and commissioning shall apply as stipulated in the General Conditions of Contract and the Contract Data.

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 Client 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 bidders shall make allowances in their bid 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 pre-commissioning tests and checks shall be agreed with the Engineer prior to commencement, as scheduled in the Detailed Commissioning Plan.

(b) The Contractor shall first conduct his own tests of all the equipment and individual components forming part of an installation. When he is satisfied that the equipment complies with the specifications, he shall notify the Engineer that he is ready for the official pre-commissioning 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 or pipes sumps, 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 from 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 functionality 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.

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 shut-down 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 RECOMMISSIONING

Recommissioning 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 installation 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 General Conditions of Contract and the Contract Data 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(s) to perform in perfect working order.

(a) The commissioning period for each installation:

  (i) Commences with the Day 1 tests of the complete repaired and upgraded installation;

  (ii) Includes commissioning of all components, equipment, sections and sub-systems that have been recommissioned prior to the Day 1 tests;

(iii) Includes training of the User Client'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;

(c) Complete commissioning of installations as part of the system as a whole shall be undertaken over a trouble-free period up to Day 30. During this period the Contractor shall train the User Client'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 commissioning tests:

(i) The Contractor shall be entitled to a certificate of Practical Completion for the repairs and upgrading of the installation only upon successful completion of the Day 30 commissioning tests;

(ii) The Contractor becomes responsible for maintenance of the installation upon Practical Completion and is entitled to performance-based payments in compliance with Additional Specification SA: General Maintenance, until Project Completion.

(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 bid 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. 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.

(f) Commissioning of a system (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, manual controls and human interventions and all 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.

(g) 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.

(h) The Contractor shall provide weekly updates of the detailed commissioning programme and schedule.

(i) It shall be an express Condition of the Contract 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.

SC 12

PROJECT PARTICULARS: DEFINITION OF INSTALLATIONS AND SYSTEMS

The installations as defined below shall be commissioned in accordance with all technical and particular specifications, manufacturer's instructions, construction drawings and diagrams:

SC 12.1

WATER TREATMENT PLANT: SOFTENING AND DISINFECTION

The plant consists of the following components:

A) BULK WATER SUPPLY AND DRINKING WATER TREATMENT PLANT

(a) The water purification works is a 20m³-packaged plant comprising the following components:

(b) Two Submersible raw water feed pumps with connecting pipe work, pumping raw water from the raw water sump to the raw water reservoir.

(c) One 0.75kW feed pump with connecting pipe work, pumping raw water from the raw water reservoir through the flocculation system directly to the clarifier which overflows into a break tank.

(d) Two Speck 075kW 240V filter pumps pumping clarified water from the break tank through two dual media filters (F8) directly to the storage tank.

(e) Two 0.75kW Grundfos CR3 pumps pumping water from the storage tank to the 31 Kiloleter elevated storage tank.

(f) Two dosing pumps for coagulation, flocculation and disinfection are available in line from the raw water feed pumps through the flocculation column to the clarifiers.

(g) Raw Water Tank Detail: 82 Kiloleter

(h) Break Tank Detail: 10 Kiloliter

(i) Overhead tank for purified water: 31 kiloliter.

(j) Filtration by two dual media sand filters;

(k) Disinfection by hypochlorite dosing.

(l) Pump installation to pump drinking water to an elevated reservoir.

(m) Elevated reservoir and reticulation system.

B) FIRE INSTALLATION

a) A 60k¶ storage tank, which is divided into two sections and is connected via a 125 mm steel pipe to the inlet of a centrifugal pump

b) The delivery side of the pump is connected to a 125mm steel pipe, which connects to a 125mm UPVC Class 12 pipe underground fire water reticulation which feed existing fire hydrants.

c) The KSB Centrifugal 65-250 pump is capable of delivering 23 l/s at a pressure of3 bar and is driven by a three-cylinder John Deere diesel engine.
d) The system constantly stays under the pressure of 8 bars, and a jockey pump will automatically assist from 7 bar pressure to maintenance the 8 bar pressure. The diesel Engine will only start when the pressure drops to 5.5 bar and will maintain the pressure until it is manually switched off.
e) The system is equipped with a test arrangement that is divided into two sections. One section for the jockey pump and the other section for the diesel engine.
f) Control panel for the Fire Pump System

SC 13 **MEASUREMENT AND PAYMENT**

SC 13.01 **DECOMMISSIONING AND REMOVING INSTALLATIONS AS PART OF THE SYSTEM** ..... Unit: sum

The unit of measurement shall be a sum.
The sum bid 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 installations as listed in the Bill of Quantities.

The sum bid shall include full compensation for the decommissioning and removal of the parts and components of an installation as listed individually in the Bill of Quantities, including actions and/or costs resulting from such work, to enable therecommissioning of parts of the repairedand/or upgraded installation.

The sum bid 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 13.02 **COMMISSIONING AND TESTING OF AN INSTALLATION** ..... Unit: sum

The unit of measurement shall be a sum.

The sum bid 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.

Separate payment items shall be billed for separate installation as part of the system.

SC 13.03 **COMMISSIONING AND TESTING OF INSTALLATIONS AS PART OF SYSTEMS AS A WHOLE** ..... Unit: sum

The unit of measurement shall be a sum.

The bid sum shall include full compensation for commissioning of the installations specified and listed as part of the system as a whole and for all costs and expenses related to labour, removal, repair, reinstallation and testing of material components and equipment during the commissioning period for each part of the system. The bid sum shall include full compensation for the final commissioning and testing, including Day 1 and Day 30 tests and all work during the 30 day commissioning period of all parts and components of the system to the specified functional condition.

All work, handling of temporary live electrical cables, lock-out and tag out procedures, temporary diversion of flows and all safety requirements shall be included in the bid sum. All actions for on-site testing, sampling, analysis, logging of data and recording of results shall be covered under the costs for commissioning. The contractor shall also be responsible for assisting the client with operation of the system during the commissioning period, all related costs deemed included with the bid sum.

Payment shall be based on successful completion of the Day 30 tests.

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 05
MEASUREMENT AND PAYMENT

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 ofa 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 coursespresented.

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.

ADDITIONALSPECIFICATION

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

INSTALLATION: Bulk Water Supply and Water Treatment Works

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 theenvironment.

(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 requiredwork.

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 PUBLICWORKS
OPERATION 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**

GUIDELINE FOR THE USE OF THE OPERATION SCORE-CARD

The scorecard and performance indicators must be used as an Operation management tool. The aim with each scorecard 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 DEFINITIONS AND ABBREVIATIONS SH 03 BASIC METHOD REQUIREMENT
SH 04 HIV/AIDS AWARENESS EDUCATION AND TRAINING SH 05 PROVIDING WORKERS WITH ACCESS TO CONDOMS SH 06 HIV/AIDS TESTING AND COUNSELLING
SH 07 APPOINTMENT OF HIV/AIDS AWARENESS CHAMPION SH 08 MONITORING
SH 09 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 contract 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

public works & infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

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																												
DATE	**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																												
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							
_____ Representative/Agent							
_____ Contractor							

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 Departmental Project Manager

_____ _____

Date Date

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

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

HIV/AIDS AWARENESS PROGRAMME: WORKSHOP CONTENT ADDRESSED

Fill in the applicable information with regard to each workshopconducted

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
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							

HIV/AIDS AWARENESS PROGRAMME: ATTENDANCE REGISTER

Fill in your name and indicate attendance by ticking the appropriate date

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 withoutcome

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 developingone

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

Excessive weight loss
Reactive TB
Hair loss
Severe tiredness

Coughing or chest pain
Pain when swallowing
Persistent fever
Diarrhoea

Vomiting
Meningitis
Memory loss
Pneumonia

Number of HIV/AIDS-related deaths

Contractor **Date**

Departmental Project Manager **Date**

ADDITIONAL SPECIFICATION

SI OCCUPATIONAL HEALTH AND SAFETY

CONTENTS

SI 1 DEFINITIONS 5

SI 2 INTRODUCTION 5

SI 3 SCOPE 6

SI 4 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS 10

SI 4.1 HAZARD IDENTIFICATION AND RISK ASSESSMENT 10

SI 4.1.1 Risk assessments 10

SI 4.1.2 Development of Risk Assessments 11

SI 4.1.3 Review of Risk Assessments 11

SI 4.2 LEGAL REQUIREMENTS 12

SI 4.3 STRUCTURE AND RESPONSIBILITIES 12

SI 4.3.1 Overall Supervision and Responsibility for Occupational Health and Safety 12

SI 4.3.2 Operational responsibilities for Occupational Health and Safety 12

SI 4.3.3 Designation of Occupational Health and Safety Representatives 13

SI 4.3.4 Duties and Functions of the Occupational Health and Safety Representatives 14

SI 4.3.5 Appointment of Occupational Health and Safety Committee 14

SI 4.4 MANDATARIES & CONTRACTORS SAFETY FILE 14

SI 4.5 ADMINISTRATIVE CONTROLS AND THE OCCUPATIONAL HEALTH AND SAFETY FILE 14

SI 4.5.1 The Occupational Health and Safety File 15

SI 4.5.2 Non-conformance to any Health and Safety requirements 16

SI 4.6 OCCUPATIONAL HEALTH AND SAFETY GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEW OF OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE 17

SI 4.7 NOTIFICATION OF CONSTRUCTION WORK 17

SI 4.8 TRAINING, AWARENESS AND COMPETENCE 17

SI 4.8.1 General Induction Training 17

SI 4.8.2 Site-specific Induction Training 17

SI 4.8.3 Other Training 18
SI 4.8.4 Awareness and Promotion 18
SI 4.8.5 Notices and Signs 19
SI 4.8.6 Competence 19
SI 4.9 CONSULTATION, COMMUNICATION AND LIAISON 19
SI 4.10 CHECKING, REPORTING AND CORRECTIVE ACTIONS 20
SI 4.10.1 Monthly compliance assessment by Client 20
SI 4.10.2 Other assessments and inspections by the Client 20
SI 4.10.3 Conducting an assessment 20
SI 4.10.4 Contractor's assessments and inspections 20
SI 4.10.5 Inspections by Occupational Health and Safety representatives and other appointees 21
SI 4.10.6 Recording and review of inspection results 21
SI 4.10.7 Reporting of Inspection results 21
SI 4.11 INCIDENT REPORTING AND INVESTIGATION 21
SI 4.11.1 Reporting of Accidents and Incidents 21
SI 4.11.2 Accident and Incident Investigation 22
SI 5 OPERATIONAL CONTROL 22
SI 5.1 EMERGENCY PREPAREDNESS, CONTINGENCY PLANNING AND RESPONSE 22
SI 5.2 FIRST-AID 22
SI 5.3 MEDICAL CERTIFICATE 23
SI 5.4 SECURITY 23
SI 5.5. FALL PROTECTION PLAN (WORKING IN A FALL RISK POSITION) 23
SI 5.6 STRUCTURES 24
SI 5.7 ACCESS SCAFFOLDING 24
SI 5.8 LIFTING EQUIPMENT 24
SI 5.8.1 Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the Driven Machinery Regulation 18 of the OHS Act 24
SI 5.9 LIFTING TACKLE 25

SI 5.10 MACHINE OPERATORS 26

SI 5.11 CONSTRUCTION VEHICLES AND MOBILE PLANT 26
SI 5.12 ELECTRICAL INSTALLATIONS 27
SI 5.13 ELECTRICAL AND MECHANICAL LOCKOUT 27
SI 5.14 USE AND STORAGE OF FLAMMABLES 27
SI 5.15 HOUSEKEEPING 28
SI 5.16 STACKING AND STORAGE 29
SI 5.17 STORAGE OF FLAMMABLE AND HAZARDOUS CHEMICALS 29
SI 5.18 FIRE PREVENTION AND PROTECTION 29
SI 5.19 EATING, CHANGING, WASHING AND TOILET FACILITIES 30
SI 5.19.1 Toilets 30
SI 5.19.2 Showers 30
SI 5.19.3 Change Rooms 30
SI 5.19.4 Eating Facility 30
SI 5.19.5 Living Accommodation 30
SI 5.20 PERSONAL AND OTHER PROTECTIVE EQUIPMENT (SECTIONS 8, 15 AND 23 OF THE OHS ACT & GSR 2) 31
SI 5.21 PORTABLE ELECTRICAL TOOLS AND EQUIPMENT 31
SI 5.22 PORTABLE LIGHTS 32
SI 5.23 PUBLIC HEALTH AND SAFETY (SECTION 9 OF THE OHS ACT) 32
SI 5.24 HAZARDOUS CHEMICAL SUBSTANCES 33
SI 5.25 EXCAVATIONS (INCLUDING PILING) 33
SI 5.26 WORKING IN CONFINED SPACES (SUCH AS MANHOLES) 35
SI 5.26.1 VENTILATION 35
SI 5.26.2 LATERAL SUPPORT 35
SI 5.26.3 ENTERING A MANHOLE 35
SI 5.26.4 GENERAL 36
SI 5.26.5 SAFETY EQUIPMENT 36
SI 5.26.6 GENERAL RECORDS 36

SI 5.27 TEMPORARY WORKS 36
SI 5.28 DEMOLITION WORK 37
SI 5.29 EXPLOSIVE POWERED TOOLS 39

SI 5.30 WELDING, FLAME CUTTING OR SIMILAR OPERATIONS 40
SI 5.31 TRANSPORTATION OF EMPLOYEES 40
SI 5.32 PILING DRIVING OPERATIONS 41
SI 5.33 HEALTH AND SAFETY POLICY 41
SI 5.34 COST FOR HEALTH AND SAFETY MEASURES DURING THE CONSTRUCTION PROCESS 41
SI 5.35 SITE ACCESS 41
SI 5.36 SITE ORGANOGRAM 42
SI 5.37 DUTY TO INFORM 42
SI 6 MEASUREMENT AND PAYMENT 42
SI 6.2 SCHEDULING ITEMS 42
SI 6.2.1 FIXED-CHARGE ITEMS 42
SI 6.2.2 TIME-RELATED ITEMS 43
SI 7 MANDATARY AGREEMENT BETWEEN CLIENT AND PRINCIPAL CONTRACTOR 45

SI 1 DEFINITIONS

In this document the following expressions shall bear the meanings assigned to them below:

Agent

Means a competent person who acts as a representative for a Client;

Client

Means any person for whom construction work is being performed (***i.e. Port of Entry/ Department of Public Works***) for purposes of this specification;

COID ACT

Means the Compensation of Occupational Injuries and Diseases Act and Regulations, Act 130/1993

Construction Regulations

Means the Occupational Health and Safety Act's, No 85 of 1993, R 84 of February 7, 2014 Construction Regulations that came into effect on February 7, 2014;

Occupational Health and Safety Plan

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

Occupational Health and Safety specification

Means a documented specification of all Health and Safety requirements pertaining to the associated works on a construction site, so as to ensure the Health and Safety of persons working, visiting, passing, staying and/or working close to the site;

OHS ACT

Means the Occupational Health and Safety Act and Regulations, Act 85 of 1993, as amended;

Principal Contractor

Means an Employer, as defined in Section 1 of the OHS Act, who performs construction work and is appointed by the Client to be in overall control and management of the construction site and works.

SI 2 INTRODUCTION

In terms of Construction Regulation 5(1)(b) of the OHS Act, the Client is required to compile an Occupational Health and Safety Specification for any intended project and provide such specification to prospective tenderers.

This specification has as objective to ensure that the Principle Contractor entering into a contract with the Client achieves and maintains an acceptable level of Occupational Health and Safety performance and compliance. This document forms an integral part of the contract between the Client and the Principal Contractor and the Principal- and other contractors should make it part of any contract/s that they may have with other contractors and/or suppliers as far as this project is concerned.

Compliance with this document does not absolve the Principal Contractor from complying with any other minimum legal requirements and the Principal Contractor remains responsible for the Health and Safety of his employees, those of his mandataries as well as any persons on adjacent properties as far as it relates to the construction activities.

Standing time claims related to any health & safety matter will not be entertained.

SI 3 SCOPE

To develop a project specific Occupational Health and Safety specification that addresses the reasonable and foreseeable risks, exposures and aspects of Occupational Health and Safety as affected by the abovementioned contract work.

The specification will provide the requirements that the Principal Contractor and other contractors will have to comply with in order to reduce the risks associated with the abovementioned contract work and that may lead to incidents causing injury and/or ill health, to a level as low as reasonably practicable and possible.

A contractor appointed as the Principal Contractor response to the Client's formal tender for the construction project, has to prepare an Occupational Health and Safety Plan based on his specification. The Client will evaluate this plan to ensure compliance with Construction Regulation 5(1)(h) that stipulates that the Client may only appoint a contractor who has the necessary competencies and resources to carry out this work safely.

The following corrective maintenance work is included at 2 Ports of Entry. The items allowed for in the scope of works will only be executed upon instruction from the Engineer when so required and when necessary.

General Items:

- Compile and supply a complete site plan.
- Compliance to OHS Act Requirements, Construction Regulations 2014 and related regulations.
- 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 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.
- 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 and wastewater 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.
- 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
- 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., at 2 Ports of Entry and submission to the Client in a format similar to the Department of Water Affair's incentive based regulation programmes.

Structural and Building Related RepairWork

- General structural corrective maintenance 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.
- Paint roof timbers and facia boards.
- Paint all previously painted surfaces.
- Replacement of damaged gutters and down pipes.
- Paint work and general structural repairs at the operational buildings.
- Waterproofing to concrete roofs.
- Replace rusted zink units, wall units and base units.
- Replace rotten and damaged wash hand basin cabinets at face brick houses.
- Replace damaged and cracked floor tiles.
- Replace damaged door and door locks
- Painting of roofs and steel structures.

Plumbing, Drainage and Sewer System Related Repair Work

- Replace missing or damaged toilet seats.
- Replace damaged toilet pans and wash hand basins.
- Service cisterns and flush masters.
- Service all taps, valves, etc.
- Service and clean geysers.
- Replace defective geysers end of life cycle.
- De-sludge existing septic tanks and dispose of sludge at approved process works.
- Inspect soak-away systems (French Drains) to remove years of fat build-up that result in much reduced permeability of the soak away. Repair of soak away systems involve opening the drain, removal a thin layer of soil and replacing with imported sand and gravel.
- Mechanically clean sewer lines where required.
- Install cast iron covers at cleaning eyes.
- Rust protects manhole covers and paint with bitumen paint.
-

Building and Site Electrical Related Repair Work

- Replacement of defective lamps
- Service distribution boards of all buildings and update labelling.
- Provide Certificate of Compliance for all buildings
- Replace faulty/damaged lights, light switches and socket outlets.
- Replace stolen and missing lights, light switches and socket outlets.
- Replace stolen and missing circuit breakers at Large Houses and converted garages.
- Perform mandatory servicing on distribution kiosks.
- Replace brittle and defective light fittings.
- Service main Low Voltage distribution board.

Fencing, Cleaning and Site Keeping Related Repair Work

- Replace damaged solid waste.
- Replace defective ablution block equipment.
- Replace rusted SHE bins and wall bins.
- Replace damaged fences at residential areas.
- Replace damaged posts on perimeter fence.
- Corrosion protection of fence posts and perimeter fence.
- Replace damaged rails and sliding gates at the entrance gates to the Port of Entry.

Bulk Water Supply Systems and External Water Networks Related Repair Work

- Yield test the existing borehole and updated asset information.
- Service existing borehole pump and allow for replacement if required.
- Service existing valves and fittings where required.
- Replace defective water meters if required.
- Service the borehole chlorination systems.
- Compile operation and maintenance manuals.
- Repair underground water distribution pipes if required.
- Service valves.
- Replace filter media for two sand filters.
- Clean and sterilize existing raw water storage tank and clear water storage tank.
- Install gabions at the embankment for stability and surface erosion protection.
- Service/Replace pumps where required.
- Clean existing clarifier.
- Repair/replace level sensors where required.
- Install new dosing pump and service existing pumps.
- Support elevated storage tank walkways at corners.
- Compile Water safety and water demand management plan.

Roads and Storm Water Related Repair Work

- Install indication and identifying signage.
- Road marking and maintenance of road signs.

- Replacement of damaged paving areas where base layers have failed.
- Construction of cattle grids.
- Install asphalt overlay in operational area and seal road.
- Repair damaged section of existing road and pothole repairs.

Standby Power Installations Repair Work

- General servicing of the existing standby generator.
- Provide diesel for the standby generator for the duration of the Contract.
- Service AMF panel.
- Replace battery for standby generator.
- Maintenance of fuel modular filtration system.
- Replacement of filters on fuel water separators
- Supply of generator substation maintenance logbook.
- Replace damaged 2200 litre diesel tank on existing stand.

External Lighting Related Repair Work

- Service the existing perimeter and area lights.
- Bulk Lamp replacement.
- Perform mandatory servicing on distribution kiosks.
- Replace damaged area light fittings and flood light fittings

Heating, Ventilation and Air Conditioning Related Repair Work

- Service all the existing air conditioners in the various buildings and residential units.
- Replace air conditioners that are at the end of their life cycle.
- Replacement of defective components such as compressors, pc boards, capacitors.
- Replace gas on units, repair gas leaks and top up of gas on units during the maintenance phase.

Conventional Fire Fighting Equipment Related Repair Work

- Service diesel engine on fire pump.
- Replace jockey pressure pump.
- Service entire fire pump system and panel. Check connections in panels and check that the panel operate in automatic mode when pressure drops in the system.
- Replace engine battery and fire panel batteries.
- Repair battery chargers.
- Service valves.
- Service all fire-fighting equipment and replace defective equipment.
- Paint repairs to all fire extinguishers.
- Pressure test fire extinguishers.
- Replace rusted fire extinguisher cabinets and fire hydrant hose cabinets with new stainless steel cabinets to reduce maintenance costs.
- Service fire hydrants and fire hose reel.
- Service and test all pressure switches for fire pump.
- Provide diesel for the diesel driven fire pump for the duration of the Contract.
- Replacement of damaged, faded and brittle signage.

- Install photoluminescent fire escape signage in operational buildings
- Compile and install fire evacuation plans in operational buildings.

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.

SI 4 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

SI 4.1 Hazard Identification and Risk Assessment SI 4.1.1

Risk assessments

This specification contains a list of risk assessment headings that have been identified by the Client as possibly applicable to the abovementioned contract work. It is, by no means, exhaustive and is only offered as assistance to the contractors intending to tender for the applicable works.
List of Risk Assessments to be used on site:

- Aggregate/Sand Delivery
- Brickwork
- Crane Operations
- Cutting of pipes
- Demolition Work
- Distribution boards – Electrical
- Drivers – of vehicles

Electrical installation and Maintenance

- Electrical Welding Machines
- Fire prevention and protection
- Gas welding-cutting operations
- Generators
- Grinding Machines Operation
- Hand and spray painting
- Hand Excavation
- Hand tools
- Installation of Glass
- Laying of pipes
- Levelling – off materials
- Loading supervisor
- Loading/unloading – of trucks
- Machine operator
- Material delivery
- Material handling
- Plastering
- Portable Electrical Tools
- Portable ladders
- Scaffolding

- Site establishment
- Skill Saw
- Tile stacking
- Tiling
- Traffic control
- Trenches – Digging of
- Use of portable electrical tools
- Work in elevated positions
- Working close to existing services i.e. electrical, waste water etc
- Working close to traffic
- Workshops
- Working at/on open edges
- Working at a Wastewater and Water Treatment Works with associated hazards.

SI 4.1.2 Development of Risk Assessments

Every Principal Contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, ensure that risk assessments are undertaken by a competent person, appointed full time on site in writing, including proof of training, and the risk assessments shall form part of the Occupational Health and Safety plan and be implemented and maintained.

The risk assessments shall include, at least:

- The identification of the current as well as emerging risks and hazards to which persons may be exposed to
- The analysis and evaluation of the risks and hazards identified
- A documented plan of safe working procedures (*SWP*) and any method statements to mitigate, reduce or control the risks and hazards that have been identified
- A plan to monitor the application of the SWP's; and
- A plan to review the risk assessments as the work progresses and changes are introduced.
- A Plan Task Observation (*PTO*) must be done on a weekly basis on all risk assessments and the record of it must be in the safety file.

Based on the risk assessments, the Principal Contractor must develop a set of site-specific Occupational Health and Safety rules that will be applied to regulate the Occupational Health and Safety aspects of the construction.

The risk assessments, together with the site-specific Occupational Health and Safety rules, must be submitted to the **Client before** mobilization on site commences.

Despite the risk assessments listed, the Principal Contractor is required to conduct a baseline risk assessment and the aforesaid risk assessments must be incorporated into the baseline risk assessment. The baseline risk assessment must further include the SWP's and the applicable method statements based on the risk assessments.

Hazard identification and risk assessments must be undertaken whilst SWP's must be developed for all out-of-scope work.

SI 4.1.3 Review of Risk Assessments

The Principal Contractor is to review the hazards identified, the risk assessments and the SWP's at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and/or processes.

The Principal Contractor must provide the Client, other contractors and all other concerned or affected parties with copies of any changes, alterations or amendments as soon as possible but within 14 days of such changes.

SI 4.2 LEGAL REQUIREMENTS

All Contractors entering into a contract with the Client shall, as a minimum, comply with the –

- OHS Act and a current, up-to-date copy of the OHS Act and its Regulations must be available on site at all times
- Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (*COID Act*). The Principal Contractor will be required to submit a letter of registration and "good-standing" from the Compensation Commissioner or compensation insurer before being awarded the contract. A current, up-to-date copy of the COID Act must be available on site at all times; and
- Where work is being carried out on mine premises, as well as where any tunneling will be done, the contractor will comply with the Mine Health and Safety Act and Regulations (*Act. 29 of 1996*), the Minerals Act and Regulations (*Act 50 of 1991*) and any other Occupational Health and Safety requirements that the mine may specify. Current, up-to-date copies of the last two mentioned Acts must be available on site at all times.

SI 4.3 STRUCTURE AND RESPONSIBILITIES

SI 4.3.1 Overall Supervision and Responsibility for Occupational Health and Safety

The Principal Contractor is responsible to implement and maintain the Occupational Health and Safety Plan approved by the Client.
The Chief Executive Officer (*in terms of Section 16(1) of the OHS Act*) of the Principal Contractor is to ensure that the Employer (*as defined in the OHS Act*) complies with the OHS Act. "*Legal Compliance Checklist*" may be used for this purpose.

The Principal Contractor's Chief Executive Officer may appoint any person reporting to him/her as Designated Person in terms of Section 16(2) of the OHS Act. Such Designated Person is responsible to assist the Chief Executive Officer to ensure that the Employer complies with the requirements of the OHS Act.

The construction supervisor(s) appointed are responsible for supervising the construction work and in specific to ensure that all work undertaken comply with the requirements of the OHS Act, its Regulations and the Client's specifications.

SI 4.3.2 Operational responsibilities for Occupational Health and Safety

The Principal Contractor shall appoint designated competent employees and/or other competent persons as outlined in the following list to assist with the operational responsibilities for Occupational Health and Safety (*this list is only the minimum requirement and is therefore in no way exhaustive*):

Appointment description	Appointment required in terms of
Accident/ Incident Investigator	General Safety Regulation 9(2)
Assistant Construction Manager	Construction Regulation 8(2)
Assistant Construction Work Supervisor	Construction Regulation 8(8)
Construction Manager	Construction Regulation 8(1)

Appointment description	Appointment required in terms of
Construction Supervisor	Construction Regulation 8(7)
Construction vehicle, mobile plant and machinery supervisor / operators	Construction Regulation 23
Demolition Supervisor	Construction Regulation 14(1)
Drivers of construction vehicles and operators or plant	Construction Regulation 23
Emergency/ Fire Co-ordinator	Construction Regulation 29
Excavation Supervisor	Construction Regulation 13(1)(a)
Explosive powered tool Controller	Construction Regulation 21(g)(i)
Explosive powered tool Operator	Construction Regulation 21(1)(b)
Fall Protection Planner	Construction Regulation 10(1)(a)
First-aiders	General Safety Regulation 3
Temp Works/ Form & Support Work Inspector	Construction Regulation 12(3)(f)
Temp Works/ Form & Support Work Supervisor	Construction Regulation 12(2)
H&S Safety Representative	Section 17 of the OHS Act

Appointment description	Appointment required in terms of
Lifting machines and equipment inspector / Operators	Construction Regulation 22
Risk Assessor	Construction Regulation 9(1)
Safety Officer / Consultant	Construction Regulation 8(5)
Scaffolding Erector	Construction Regulation 16
Scaffolding Inspector	Construction Regulation 16
Scaffolding Supervisor	Construction Regulation 16

These appointments must be in writing and the responsibilities clearly stated together with the period for which each appointment is made. This information must be communicated to and agreed with the appointees. Appointments should also include proof of training where applicable.

Register by a statutory body SACPCMP *(with effect 6 August2015)*.

Copies of appointments must be submitted to the Client together with short concise CV's of the appointees as part of the Principal Contractor's Health and Safety plan and if appointed copies of the appointments included in the Occupational Health and Safety file. All appointments must be approved by the Client and any changes in appointees or appointments must be communicated to the Client and agreed upon before being implemented.

The Principal Contractor must, furthermore provide the Client with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated on a weekly basis.

SI 4.3.3 Designation of Occupational Health and Safety Representatives

Where the Principal Contractor employs more than 20 persons [*including the employees of other contractors (sub-contractors)*] he has to appoint one Occupational Health and Safety representative for every 50 employees or part thereof. General Administrative Regulation 6 requires that the election, appointment and subsequent designation of the Occupational Health and Safety representatives be executed in consultation with employee representatives or employees.

Occupational Health and Safety representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

Should the appointed representatives require any training, assistance or facilities, the Principal Contractor must provide these.

SI 4.3.4 Duties and Functions of the Occupational Health and Safety Representatives

The Principal Contractor must ensure that the designated Occupational Health and Safety representatives conduct a weekly inspection of their respective areas of responsibility, using a checklist, and report thereon to the Principal Contractor.

Occupational Health and Safety representatives must be included in accident and/or incident investigations.

Occupational Health and Safety representatives must attend all Occupational Health and Safety committee meetings.

SI 4.3.5 Appointment of Occupational Health and Safety Committee

The Principal Contractor must establish an Occupational Health and Safety committee consisting of all the designated Occupational Health and Safety representatives together with a number of management representatives that are not allowed to exceed the number of Occupational Health and Safety representatives on the committee and a representative of the Client who shall act as a co-opt without voting rights. The members of the Occupational Health and Safety committee must be appointed in writing and copies of the appointments included in the Occupational Health and Safety file.

The Occupational Health and Safety committee must meet as a minimum on a **monthly** basis and consider, at least, the following agenda items:

- Opening and welcome
- Members present, apologies and absent
- Minutes of previous meeting
- Matters arising from the previous meeting
- Occupational Health and Safety representatives' reports
- Incident and/or accident reports and investigations
- Incident, accident and/or injury statistics
- Other matters
- Endorsement of registers and other statutory documents by a duly authorised representative of the Principal Contractor
- Close and next meeting.

SI 4.4 MANDATARIES & CONTRACTORS SAFETY FILE

It is a requirement that the Principal Contractor, when he appoints Contractors, includes an OHS Act Section 37(2) agreement (*i.e. Agreement with Mandatary*) in his agreement with such Contractor.

SI 4.5 ADMINISTRATIVE CONTROLS AND THE OCCUPATIONAL HEALTH AND SAFETY FILE

SI 4.5.1 The Occupational Health and Safety File

As required by Construction Regulation 7(2)(b), the Principal Contractor and other Contractors will each keep a completed and updated Occupational Health and Safety File on site, containing the following documents as a minimum:

- Notification of construction work
- Updated copy of the OHS ACT and its Regulations (*General Administrative Regulation 4)*
- Proof of registration and good standing with the Compensation Commissioner or a COID Insurer
- Occupational Health and Safety plan agreed with the Client including the underpinning risk assessment(s) and method statements
- Copies of Occupational Health and Safety committee meetings and other relevant minutes.
- Designs and/or drawings
- A list of Contractors (*Sub-Contractors*) including copies of the agreements between the parties and the type of work being done by each Contractor

- Appointment and designation forms in the safety file
- The following registers:

  - Accident and/or incident register (*Annexure 1 of the General Administrative Regulations*)
  - Occupational Health and Safety representatives inspection register
  - Construction vehicles and mobile plant inspections by controller
  - Daily inspections of vehicles, plant and other equipment by the operator, driver and/or user
  - Designer's inspections and structures record
  - Inspection and maintenance of explosive powered tools
  - Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances)
  - Fall protection inspections
  - First-aid box content
  - Record of first-aid treatment
  - Fire equipment inspections and maintenance
  - Record of hazardous chemical substances kept and used on site
  - Ladder inspections
  - Machine safety inspections (*including machine guards, lock-outs etcetera*);
  - Inspection registers and logbooks for lifting machines and – tackle *(including daily inspections by drivers/operators*)
  - Inspection of scaffolding
  - Inspection of stacking and storage
  - Inspections of structures
  - Pressure Equipment inspections; and
  - Inspection of welding equipment.

- All other applicable record.

The Client will conduct an evaluation of the Principal Contractor's Occupational Health and Safety file from time to time during a month, but at least once a month. The Principal Contractor will conduct an evaluation of the Contractor's Occupational Health and Safety file from time to time during a month, but at least once a month.

Each Contractor must keep his/her Health and Safety File updated for the Principal Contractor, on a weekly basis. The Subcontractor will agree to comply with the terms of the Provisions of Section 37(2) of the Occupational & Safety Act, Act No. 85 of 1993 together with the Construction Regulations 2014 as amended.

Furthermore the sub contractor is to indemnify the Employer against any claims in this regard.

SI 4.5.2 Non-conformance to any Health and Safety requirements

The Employer's Safety Consultant (Employer's Agent in terms of the Contract Data) has the right to impose penalties for non-conformance to any safety requirements in terms of the Act and Regulations and the safety specification / plan.

A first and only written warning will be issued by the Safety Consultant (*and ratified by the Principal Agent*) to the Principal Contractor in the event of any non-conformance, by means of a contract instruction (*in terms of the Principal Building Agreement*). Immediate compliance ***(within 1 (one) calendar day)*** should be achieved after a written warning has been issued, to the full satisfaction of the Safety Consultant and or Safety Representative of the Principal Contractor, failing which a penalty will be imposed on the Principal Contractor. This penalty will be recovered through a recovery statement and will be equal to an amount calculated at a rate of **R 3,000-00** per calendar day for each and every calendar day of default in terms of the Act and Regulations, safety specification and or safety plan.

The Principal Contractor will recover this penalty in full from the defaulting Sub-Contractor through the N/S recovery statement issued in terms of their Subcontract Agreement.

SI 4.6 OCCUPATIONAL HEALTH AND SAFETY GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEW OF OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE

The Principal Contractor is required to maintain a casualty incident frequency rate (CIFR) of at least 4 to this document: "Measuring Injury Experience" and report on this to the Client on a monthly basis.

SI 4.7 NOTIFICATION OF CONSTRUCTION WORK

The Principal Contractor must, where the contract meets the requirements laid down in Construction Regulation 4, within 7 days before the work is to be carried out, notify the Department of Labour of the intention to carry out construction work and use the form (*Annexure A in the Construction Regulations*) for this purpose. A copy of the notification must be held on the Occupational Health and Safety file and a copy must also be forwarded to the Client for record purposes.

SI 4.8 TRAINING, AWARENESS AND COMPETENCE

The contents and syllabi of all training required by the OHS Act and Regulations must be included in the Principal Contractor's Occupational Health and Safety plan.

SI 4.8.1 General Induction Training

All members of the Contractor's site management as well as all the persons appointed as responsible for Occupational Health and Safety in terms of the Construction and other Regulations will be required to attend a general induction session.
All employees of the principal and other Contractors must be in possession of proof of general induction training.

SI 4.8.2 Site-specific Induction Training

The Principal Contractor will be required to develop a contract work project specific induction training course based on the risk assessments for the contract work and train all employees and other Contractors and their employees in this.
All employees of the Principal and other Contractors must be in possession of proof that they have attended a site-specific Occupational Health and Safety induction training at all times.

SI 4.8.3 Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training and where applicable licenses for this applicable construction vehicles & mobile plant.

All employees in jobs requiring training in terms of the OHS Act and Regulations must be in possession of valid proof of training.

Occupational Health and Safety training requirements [*as required by the Construction Regulations and as indicated by the Occupational Health and Safety Specification and the risk assessment(s)*] i.e.:

- General induction *(Section 8 of the OHS Act)*
- Site and job specific induction, including visitors *(Sections 8 and 9 of the Act)*
- Site and project manager
- Construction supervisor
- Occupational Health and Safety representatives *(Section 18 (3) of the Act)*
- Training of the appointees indicated in paragraphs 4.3.1 and 4.3.2 above
- Operators and drivers of construction vehicles and mobile plant (*Construction Regulation 23*)
- Basic fire prevention and protection *(Environmental Regulations 9 and Construction Regulation 29)*
- Basic first-aid *(General Safety Regulations 3)*
- Storekeeping methods and safe stacking *(Construction Regulation 28)*; and
- Emergency, security and fire coordinator.

SI 4.8.4 Awareness and Promotion

The Principal Contractor is required to have a promotion and awareness programme in place to create an Occupational Health and Safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks (*Weekly*)
- Posters
- Videos
- Competitions
- Suggestion schemes
- Participative activities such as employee "*Occupational Health and Safety circles*".

SI 4.8.5 Notices and Signs

The following notices and signs are, where applicable, compulsory on the construction site as well as the Contractors' yards:

Area and/or activity where notice or sign is required	Notice or sign required in terms of
Display of notices and signs	General Safety Regulation 2B and SABS Code 1186
Entry	General Safety Regulation 2C(2)
First-aid	General Safety Regulation 3(6)
Toilets and change rooms	Facilities Regulation 2(5); 4(2)(f)
Storage of flammable materials	General Safety Regulation 4(8)(a)(i) and (ii) *(10(e) only applicable to Contractor's yards)*
Grinding wheels	Driven Machinery Regulation 8(1)(7)
Machinery	General Machinery Regulation 9 *(Schedule D)*
Explosive powered tools	Construction Regulation 21(2)(f)
Prohibition on smoking and eating or drinking at the workplaces where high risk substances [*FR5 (1)*] are stored or handled	Facilities Regulation 6(b)
Non-potable water	Facilities Regulation 7(b)

SI 4.8.6 Competence

The Principal Contractor shall ensure that his and other Contractors' employees appointed are competent and that all training required doing the work safely and without risk to health of their or other persons, has been successfully completed before work commences.

The Principal Contractor shall ensure that follow-up and refresher training is conducted on a regular basis as well as the contract work progresses and the work situation changes.

Records of all training must be kept on the Occupational Health and Safety file for auditing purposes.

SI 4.9 CONSULTATION, COMMUNICATION AND LIAISON

The following arrangements will apply:

Occupational Health and Safety liaison between the Client, the Principal Contractor, the other Contractors, the designer and other concerned parties will be through the Occupational Health and Safety committee. In the absence of a Health and Safety committee, the Client and Principal Contractor will agree on an alternative communication forum to be implemented.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally (*followed up in writing within 14 days*) or in writing, as and when the need arises.

Consultation with the workforce on Occupational Health and Safety matters will be through their supervisors, Occupational Health and Safety representatives, the Occupational Health and Safety committee and their elected trade union representatives, if any.

The Principal Contractor will be responsible for the dissemination of all relevant Occupational Health and Safety information to the other Contractors, for example design changes agreed with the Client and the designer, instructions by the Client and/or his agent, exchange of information between Contractors, the reporting of hazardous and/or dangerous conditions and/or situations etc.

The Principal Contractor will be required to do site safety walks with the Client and/or his Agent on a basis to be determined and agreed between the parties.

The Principal and other Contractors will be required to conduct toolbox talks with their employees on a weekly basis and records of these must be kept on the Occupational Health and Safety file. Employees must acknowledge the receipt of toolbox talks which record must, likewise be kept on the Occupational Health and Safety file. Toolbox talk topics must include applicable health and safety issues.

The Principal Contractor's most senior manager on site will be required to attend all the Client's Occupational Health and Safety meetings.

The Client or his Agent and the Principal Contractor will agree of the dates, times and venues of the Occupational Health and Safety meetings.

SI 4.10 CHECKING, REPORTING AND CORRECTIVE ACTIONS

SI 4.10.1 Monthly compliance assessment by Client

The Client will be conducting a monthly assessment to comply with Construction Regulation 5(1)(*o*) and to confirm that the Principal Contractor has implemented and is maintaining the agreed and approved Occupational Health and Safety plan.

SI 4.10.2 Other assessments and inspections by the Client

The Client reserves the right to conduct other ad-hoc assessments and inspections as deemed necessary. This could include among others site safety walks and Sub Contractor safety file audits.

SI 4.10.3 Conducting an assessment

A representative of the Principal Contractor must accompany the Client on all assessments and inspections and may conduct his/her own inspection at the same time. Each party will, however, take responsibility for the results of his/her own assessment and/or inspection.

SI 4.10.4 Contractor's assessments and inspections

The Principal Contractor is to conduct his own internal assessments and inspections to verify compliance with his own Occupational Health and Safety plan and management system as well as the requirements of this specification and the compliance of other Contractors under his/her control. These assessments and inspections must include an audit on documentation no less than once every month.

SI 4.10.5 Inspections by Occupational Health and Safety representatives and other appointees

Occupational Health and Safety representatives must conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees must conduct inspections and report thereon as specified in their appointments for example vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

SI 4.10.6 Recording and review of inspection results

All the results of the abovementioned inspections must be in writing, reviewed at Occupational Health and Safety committee meetings, endorsed by the chairperson of the meeting and placed on the Occupational Health and Safety file.

SI 4.10.7 Reporting of Inspection results

The Principal Contractor is required to provide the Client Health and Safety Consultant with monthly reports and inspections.

SI 4.11 INCIDENT REPORTING AND INVESTIGATION

SI 4.11.1 Reporting of Accidents and Incidents

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- dies
- becomes unconscious
- loses a limb or part of a limb
- is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

or where –

- a major incident occurred
- the health or safety of any person was endangered
- where a dangerous substance was spilled
- the uncontrolled release of any substance under pressure took place
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- machinery ran out of control

to the Client within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (*Section 24 of the OHS ACT and General Administrative Regulation 8*), **except** that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both the Client and the Provincial Director of the

Department of Labour forthwith by telephone, telefax or e- mail. All other reports should still be completed and provided as required.
The Principal Contractor is required to provide the Client with copies of all statutory reports required in terms of the OHS ACT within 7 days of the incident occurring.

The Principal Contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports, including the reports contemplated in 4.11.2 below, within 7 days of the incident occurring.

SI 4.11.2 Accident and Incident Investigation

The Principal Contractor is responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that he, she and/or they had to be referred for medical treatment by a doctor, hospital or clinic.

The results of the investigation are to be entered into the accident and/or incident register.

The Principal Contractor is responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the OHS Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.
The Principal Contractor is responsible for the investigation of all road traffic accidents, related to the construction activities, and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Client reserves the right to hold its own investigation into an incident or call for an independent external investigation.

SI 5 OPERATIONAL CONTROL

SI 5.1 EMERGENCY PREPAREDNESS, CONTINGENCY PLANNING AND RESPONSE

The Principal Contractor must appoint a competent person to act as emergency controller and/or coordinator.

The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that the Client may have in place.

The Principal Contractor and the other Contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them.

SI 5.2 FIRST-AID

The Principal Contractor must provide first-aid equipment (including a stretcher) and have qualified first-aider(s) on site as required by General Safety Regulation 3 of the OHS Act.

The contingency plan of the Principal Contractor must include arrangements for the speedily and timeously transportation of injured and/or ill person(s) to a medical facility or of getting emergency medical aid to person(s) that may require it. The Principal Contractor must have firm arrangements with his other Contractors in place regarding the responsibility of the other Contractors injured and/or ill employees.

SI 5.3 MEDICAL CERTIFICATE

A Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an Occupational Health Practitioner in the form of **Annexure 3** of the Construction Regulations 2014.

SI 5.4 SECURITY

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period.

Access control must be controlled and handled by a security company that is registered by SIRA and the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of project applicable security rules and procedures and maintain these throughout the construction period.

SI 5.5 FALL PROTECTION PLAN (WORKING IN A FALL RISK POSITION)

A pre-emptive risk assessment will be required for any work to be carried out above (2) two metres from the ground or any floor level and will be classified as "*work in elevated positions*".

As far as is practicable, any person working in an elevated position will work from a stable platform, ladder or other device that is at least as safe as if he or she is working at ground level and whilst working in this position be wearing a single belt with lanyard to prevent the person falling from the platform, ladder or other device utilized. This safety belt will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length and strength that the person will not be able to move over the edge.

Alternatively any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with suitable guard rails at two different heights as prescribed in SANS 10085 code of practice for the design, erection, use and inspection of access scaffolding.

Where the requirement is not practicable, the person will be provided with a full body harness that will be worn and attached above the wearer's head at all times and the lanyard must be fitted with a shock absorbing device or the person must be attached to a fall arrest system that is approved by the Client.

Where the requirements are not practicable, a suitable catch net must be erected.

Employees working in elevated positions must be trained to do this safely and without risk to their Health and Safety.
Where work on roofs is carried out, the risk assessment must take into account the possibility of persons falling through fragile material, i.e. skylights and openings in the roof as well as the possibility of working in unsafe weather conditions.

Updated medical certificate confirming the fitness of employees working at a fall risk position should be kept on the Health and Safety file at all times.

SI 5.6 STRUCTURES

The Principal Contractor must ensure that:

Only skilled employees are allowed to erect structures and that the skills of these employees are being verified at regular intervals.

Steps are taken to ensure that no structure becomes unstable or collapses due to construction work being performed on it or in the vicinity of it.

No structure is overloaded to the extent where it becomes unsafe. He or

she has received from the designer the following information:

- Information on known or anticipated hazards relating to the construction work and the relevant information required for the safe execution of the construction work
- A geo-scientific report (where applicable)
- The loading the structure is designed to bear
- The methods and sequence of the construction process
- Any other applicable information
- All drawings pertaining to the design are on site and available for inspection

SI 5.7 ACCESS SCAFFOLDING

Access scaffolding must be erected, used and maintained safely in accordance with Construction Regulation 16 and SA National of Standards Code of Practice, SANS 10085 entitled, "*The Design, Erection, Use and Inspection of Access Scaffolding*".

Detailed consideration must be given to all scaffolding to ensure that it is properly planned to meet the working requirements, designed to carry the necessary loadings and maintained in a sound condition. It must also be ensured that there is sufficient material available to erect the scaffolding properly.

Scaffolding must be erected, altered or dismantled by person(s) who has/have adequate training and experience in this type of work or under the continuous supervision of such a person.

SI 5.8 LIFTING EQUIPMENT

SI 5.8.1 Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the Driven Machinery Regulation 18 of the OHS Act.

The Driven Machinery Regulation requires that:

- Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. When the MML varies with the conditions of use, the table of maximum loads should be used by the driver/operator
- Each winch on a lifting machine must at all-time have, at least, three full turns of rope on the drum when the winch has been run to its lowest limit
- Lifting equipment be fitted with a brake or other applicable device capable of holding the MML. This brake or device must automatically prevent the downward movement of the load when the lifting power is interrupted
- Lifting equipment fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML
- Every chain or rope on a lifting machine that forms an integral part of the machine must have a factor of safety as prescribed by the manufacturer of the machine and where no standard is available the factor of safety must be:

▪ chains –	4 (four)
▪ steel wire ropes –	5 (five)
▪ fiber ropes –	10 (ten)

- Every hook or load attaching device must be designed such or fitted with a device that will prevent the load from slipping off or disconnecting
- Every lifting machine must be inspected and load tested by a competent person every time it has been dismantled and re-erected and every **12 months** after that. The load test must be in accordance with the manufacturers prescription or to 110% of the MML in addition all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices forming an integral part of a lifting machine must be inspected every **6 months** by a competent person
- All maintenance, repairs, alterations and inspection results must be recorded in a log book and each lifting machine must have its own log book; and
- No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by an inspector of the Department of Labour

SI 5.9 LIFTING TACKLE

The following requirements will apply to lifting tackle:

- All lifting tackle must be examined at intervals not exceeding **3 months** by person as prescribed in DMR 18(10)(e) Records of such inspections must be kept in the safety file. Manufactured of sound material, well-constructed and free from patent defects
- Clearly and conspicuously marked with and identity number
- Maximum mass load factor of safety:

▪ Natural fiber ropes	10 (ten)
▪ Man-made fiber ropes and woven webbing	6 (six)
▪ Steel wire ropes – single rope	6 (six)
▪ Steel wire ropes – combination slings	6 (six)
▪ Mild Steel chains	5 (five)
▪ High tensile/alloy steel chains	4 (four)

- Steel wire ropes must be discarded (not used any further for lifting purposes) when wear and corrosion is evident and must be examined by a competent person every three months for this purpose and the results recorded in a designated log book
- Lifting tackle must be stored or protected as to prevent damage or deterioration when not in use.

SI 5.10 MACHINE OPERATORS

The following requirements will apply to machine operators:

- Only certified and/or competent employees may be allowed to operate any machinery
- Every lifting machine operator must be trained specifically for the type of lifting machine that he or she is operating
- Operators of Jib cranes with a maximum mass load of 500 kg or more must be in possession of a certificate of training issued by an accredited (*by the Department of Labour*) training provider.

SI 5.11 CONSTRUCTION VEHICLES AND MOBILE PLANT

Construction vehicles and mobile plant will initially during the competency evaluation process be inspected by the Principal Contractor prior to being allowed on a project site and suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the OHS Act and Regulations.

Construction vehicles and mobile plant must be:

- Of acceptable design and construction
- Maintained in good working order
- Used in accordance with their design and intention for which they were designed
- Operated and/or driven by trained, competent and authorised operators/drivers
- No unauthorised persons to be allowed to drive construction vehicles and mobile plant
- Provided with safe and suitable means of access
- Fitted with adequate signalling devices to make movement safe including reversing
- Excavations and other openings must be provided with sufficient barriers to prevent construction vehicles and mobile plant from falling into same
- Provided with roll-over protection
- Inspected daily before start-up by the driver, operator and/or user and the findings recorded in a register/log book
- Fitted with two head and two tail lights that is in good working condition whilst operating under poor visibility conditions; and
- Used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported
- Operators and drivers of construction vehicles and mobile plant must be in possession of a valid medical certificate declaring the operator and/or driver physically and psychologically fit to operate or drive construction vehicles and mobile plant
- No loose tools, material etc. is allowed in the driver and/or operators compartment/cabin nor in the compartment in which any other persons are transported
- No person may ride on construction vehicles and mobile plant except for in a safe place designed and provided for this purpose

- The construction site must be organized to facilitate the movement of construction vehicles and mobile plant in such a manner that pedestrians and other vehicles are not endangered. Traffic routes to be suitable, sufficient in number and adequately demarcated
- Construction vehicles and mobile plant left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights, reflectors or barricades to prevent moving traffic from a sudden emergency, or to come into contact with the parked construction vehicles and mobile plant
- In addition construction vehicles and mobile plant left unattended after hours must be parked with all buckets, booms etc. full lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely
- Employees employed adjacent or on public roads must wear reflective safetyvests
- All construction vehicles and mobile plant daily inspection records must be kept in the Occupational Health and Safety file.

SI 5.12 ELECTRICAL INSTALLATIONS

The installation of temporary electricity for construction use shall be in accordance with Construction Regulation 24 and the Electrical Installation Regulations.

The Principal Contractor must ensure that:

- Existing services are located and marked before construction commences and during the progress thereof
- Where the abovementioned is not possible, employees with jackhammers etc. are protected against electric shock by the use of suitable protective equipment e.g. rubber mats, insulated handles etc
- Electrical installations and -machinery are sufficiently robust to withstand normal working conditions on site
- Temporary electrical installations must be inspected at least once per week by a competent person and a record of the inspections kept on the Occupational Health and Safety file
- Electrical machinery used on a construction site must be inspected daily before start-up by the competent driver/operator or any other competent person and a record of the inspections kept on the Occupational Health and Safety file; and
- A competent person appointed in writing must control all temporary electrical installations.

SI 5.13 ELECTRICAL AND MECHANICAL LOCKOUT

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

SI 5.14 USE AND STORAGE OF FLAMMABLES

The Principal Contractor must ensure that:

- No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapors being present unless adequate precautions is taken

- No flammables is used or applied e.g. in spray painting, unless in a room or cabinet or other enclosure specially designed and constructed for the purpose unless there is no danger of fire or explosion due to the application of adequate ventilation
- The workplace is effectively ventilated. Where this cannot beachieved:
    - Employees must wear suitable respiratory equipment
    - No smoking or other sources of ignition is allowed in thearea
    - The area is conspicuously demarcated as "*flammable*"
- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire- resistant container, cage or room that is kept locked with access control measures in place and sufficient firefighting equipment installed and fire prevention methods practiced for example proper housekeeping
- Flammables stored in a permanent flammable store are stored so that no fire or explosion is caused i.e.:
    - Stored in a locked and well-ventilated reasonably fire resistant container, cage or room conspicuously demarcated as "*Flammable Store – No Smoking or Naked Lights*"
- The flammables store to be constructed of two-hour fire retardant walls, door and roof and separated from adjoining rooms or workplaces by means of a two-hour fire retardant firewall
- Adequate and suitable firefighting equipment installed around the flammables store and marked with the prescribed signs
- All electrical switches and fittings to be of a flameproofdesign
- Any work done with tools in a flammable store or work areas to be of a non-sparking nature
- No Class A combustibles such as paper, cardboard, wood, plastic, straw etcetera to be stored together with flammables
- The flammable store to be designed and constructed to, in the event of spillage of liquids in the store, to contain the full quantity + 10% of the liquids stored
- A sign indicating the capacity of the store to be displayed on thedoor
- Only one day's quantity of flammable is to be kept in theworkplace
- Containers (*including empty containers*) to be kept closed to prevent fumes/vapors from escaping and accumulating in low lying areas
- Metal containers to be bonded to earth whilst decanting to prevent build-up of static forces; and
- Welding and other flammable gases to be stored segregated as to the type of gas and empty and full cylinders.

SI 5.15 HOUSEKEEPING

The Principal Contractor must ensure that:

- Housekeeping is continuously implemented and maintained
- Materials and equipment is properly stored
- Scrap, waste and debris is removed regularly
- Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to the free-flow of pedestrians and vehicular traffic
- Waste and debris not to be removed by throwing from heights but by chute orcrane
- Where practicable, construction sites are fenced off to prevent entry of unauthorized persons
- Catch platforms or -nets are erected over entry and exit ways or over places where persons are working to prevent them being struck by falling objects

- An unimpeded work space is maintained for every employee
- Every workplace is kept clean, orderly and free of tools and the likes that are not required for the work being done
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, skid-free and free of obstruction, waste and materials
- The walls and roof of every indoor workplace be sound and leak-free; and
- Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fences, boarded over or provided with protection to prevent persons from falling.

SI 5.16 STACKING AND STORAGE

The Principle Contractor must ensure that:

- A competent person is appointed in writing to supervise all stacking and storage on a construction site
- Adequate storage areas are provided and demarcated
- The storage areas are kept neat and under control
- The base of any stack is level and capable of sustaining the weight exerted on it by the stack
- The items in the lower layers can support the weight exerted by the top layers
- Cartons and other containers that may become unstable due to wet conditions are kept dry
- Pallets and containers are in good condition and no material is allowed to spill out
- The height of any stack does not exceed 3 times the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector of the Department of Labour has been obtained to build the stacks higher with the aid of a machine. (*The operator of the machine must be protected against items falling from overhead or off the stack and no items may overhang*)
- The articles that make up a single tier are consistently of the same size, shape and mass
- Structures for supporting stacks are structural or brick wall sound and able to support the mass of the stack
- No articles are removed from the bottom of the stack first but from the top tier first
- Anybody climbing onto a stack can and does do it safely and that the stack is sufficiently stable to support him or her
- Stacks that are in danger of collapsing are broken down and restacked
- Stability of stacks are not threatened by vehicles or other moving plant and machinery
- Stacks are built in a header and stretcher fashion and that corners are securely bonded
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations.

SI 5.17 STORAGE OF FLAMMABLE AND HAZARDOUS CHEMICALS

See paragraphs 5.18 and 5.23 below.

SI 5.18 FIRE PREVENTION AND PROTECTION

The Principal Contractor must ensure that:

- The risk of fire is avoided
- Sufficient and suitable storage of flammables is provided
- Sources of ignition is obviated wherever flammable or highly combustible material is present in the workplace, for example
- Notices prohibiting smoking is displayed and enforced

- Welding and flame cutting is only allowed under controlled conditions that includes written hot work permits
- Only spark-free hand and power tools are used
- No grinding, cutting and shaping of ferrous metals are allowed using electrically driven power tools that produces sparks
- Flameproof switches and fittings are to be used in the flammable atmosphere
- Good housekeeping is maintained to prevent the accumulation of unnecessary combustibles
- Adequate ventilation is maintained

- Adequate and suitable fixed and portable firefighting equipment are provided and maintained in good working order
- Maintenance must include:

  - Regular inspections by a competent person appointed in writing and records of such inspections should be kept in the Occupational Health and Safety file
  - Annual inspection and service by an accredited service provider

- All employees are instructed in the use of the firefighting equipment and know how to attempt to extinguish a fire
- A sufficient number of employees are appointed and trained to act as an emergency team to deal with fires and other emergencies

Employees are informed regarding emergency evacuation procedures and escape routes;

- Emergency escape routes are kept clear at all times and clearly marked
- Evacuation assembly points are demarcated and made known to employees;
- Evacuation is practiced to ensure that all persons are evacuated timeously
- Roll call is held after evacuation to account for all employees and to ensure that no-one including visitors have been left behind; and
- A clearly audible, to all persons on site, siren or alarm is fitted and regularly tested.

SI 5.19 EATING, CHANGING, WASHING AND TOILET FACILITIES

SI 5.19.1 Toilets

The provision of toilets for each sex is required in terms of the National Building Regulations and Construction Regulation 30.

Chemical toilets are allowed instead of the water borne sewerage type. Toilets have to be provided at a ratio of at least 1 toilet per 30 employees.

SI 5.19.2 Showers

At least cold-water showers of some sort for each sex have to be provided at a ratio of at least 1 shower per 15 employees.

SI 5.19.3 Change Rooms

Some form of screened off changing facility must be provided separately for each sex.

SI 5.19.4 Eating Facility

Some form of eating facility sheltered from the sun, wind and rain must be provided.

SI 5.19.5 Living Accommodation

Where the site is in a remote location and transport to home is not readily available, reasonable and suitable living accommodation must be provided.

SI 5.20 PERSONAL AND OTHER PROTECTIVE EQUIPMENT (SECTIONS 8, 15 AND 23 OF THE OHS ACT & GSR 2)

The Principal Contractor is required to proactively identify the hazards in the workplace and deal with them on an ongoing basis. He/she must either remove them or, where impracticable take steps to protect employees and make it possible for them to work safely and without risk to health under the hazardous conditions. Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the Principal Contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the Principal Contractor maintain the said equipment, that he/she instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use and/or wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other valid reason, the employee cannot be allowed to continue working under the hazardous condition(s) for which the equipment was prescribed but an alternative solution has to be found that may include relocating the employee.

The Principal Contractor may **not charge any fee** for protective equipment prescribed by him or her **but may charge for equipment under the following conditions:**

- Where the employee requests additional issue in excess of what is prescribed
- Where the employee has patently abused or neglected the equipment leading to early failure;
- Where the employee has lost the equipment.

All employees shall, as a minimum, be required to wear the following personal protective equipment on any of the Client's projects:

- New protective overalls
- New protective footwear
- New protective headwear; and
- Eye/face & hand protection where necessary.

SI 5.21 PORTABLE ELECTRICAL TOOLS AND EQUIPMENT

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 ampere plug point and is moved around for use in the workplace i.e. drills, saws, grindstones, portable lights, etcetera. In addition electrical appliances such as fridges, hotplates, heaters, and etcetera must be inspected and maintained to the same standards as portable electrical tools and appliances.
The use, inspection and maintenance of portable electrical tools and equipment must be governed by the following:

- Regular inspections by a competent person appointed in writing
- Inspection results must be recorded in a register
- Only competent authorized persons are allowed to use portable electrical tools and equipment; and
- The correct protective equipment is worn / used whilst operating portable electrical tools and equipment.

This equipment:

- Must be maintained in good condition at all times to prevent an electrical shock to the user
- The main source should incorporate an earth leakage protection device or receive power through a double wound transformer or be double insulated and clearly marked as such; and
- All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

SI 5.22 PORTABLE LIGHTS

The following requirements apply to portable lights:

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

SI 5.23 PUBLIC HEALTH AND SAFETY (SECTION 9 OF THE OHS ACT)

The Principal Contractor is responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimize those dangers. This includes:

- Non- employees entering the site for whatever reason
- The surrounding community; and
- Passersby the site.

Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times.

All non-employees entering the site must receive site applicable induction into the hazards and risks and the control measures for these.

SI 5.24 HAZARDOUS CHEMICAL SUBSTANCES

The Principal Contractor must ensure that:

- Employees receive the necessary information and training to be able to use and store hazardous chemical substances safely
- Employees obey lawful instructions regarding
- The wearing and use of protective equipment
- The use and storage of hazardous chemical substances
- The prevention of the release of hazardous chemical substances
- The wearing of exposure monitoring and measuring equipment
- The cleaning up and disposal of materials containing hazardous chemical substances
- Housekeeping, personal hygiene and the protection of the environment
- The risk assessments required in terms of Construction Regulation 7 include employee exposure to hazardous chemical substances and that the necessary measures be taken to protect persons from being detrimentally affected by hazardous chemical substances present or used in the workplace
- Suppliers provide the necessary information in the form of a material safety data sheet regarding hazardous chemical substances required to ensure the safe use and storage of that substances
- An up-to-date list is kept on site of hazardous chemical substances stored and used together with the material safety data sheet of the said hazardous chemical substances
- Hazardous chemical substances containers be clearly marked as to the contents and main hazardous category e.g. "*Flammable*" or "*Corrosive*" and the reference number of the hazardous chemical substances on the list indicated above
- Hazardous chemical substances for example asbestos dust is not cleared by using compressed air but should be vacuumed
- No person eats or drinks in a hazardous chemical substances workplace; and
- Hazardous chemical substances waste is disposed of safely in terms of hazardous waste disposal requirements.

SI 5.25 EXCAVATIONS (INCLUDING PILING)

Where excavations or any part thereof will exceed 1.5 m in depth the Principal Contractor will be required to submit a method statement to the Client for approval before commencing with the excavation and the Client will issue a permit to precede once the risk assessment and method statement is approved.

Regardless of the above, all excavation work has to comply with the following:

- Excavation work must be carried out under the supervision of a competent person with at least two years practical experience in excavation work who has been appointed in writing
- Before excavation work begins the stability of the ground must be evaluated
- Whilst excavation work is being performed, the Principal Contractor must take suitable and sufficient steps to prevent any person from being buried or trapped by a fall or dislodgement of material

- No person may be required or permitted to work in an excavation that has not been adequately shored or braced
- Where the excavation is in stable material or where the sides of the excavation are sloped back to at least the maximum angle of repose measured relative to the horizontal plane, shoring or bracing may be left out **but only after** written permission has been obtained from the appointed competent person
- Shoring and bracing must be designed and constructed to safely support the sides of the excavation and prevent it from collapsing
- Where uncertainty exists regarding the stability of the soil the opinion of a competent professional engineer or professional technologist must be obtained whose opinion will be decisive. The opinion must be in writing and signed by the engineer or technologist as well as the appointed excavator
- No load or material may be placed near the edge of an excavation if it is likely to cause a collapse of the excavation, unless suitable shoring has been installed to be able to carry the additional load
- Neighbouring/adjoining buildings, structures or roads that may be affected or endangered by the excavation must be suitably protected
- Every excavation must be provided with means of access that must be within 6 meters of any employee within the excavation at any time
- The location and nature of any existing services such as water, electricity, gas, telecommunication etcetera must be established before any excavation is commenced with and any service that may be affected by the excavation must be protected and made safe for employees working in or near in the excavation
- Every excavation, including the shoring and bracing or any other method to prevent collapse, must be inspected by the appointed competent person as follows:

    - Daily before work commences
    - After every blasting operation
    - After an unexpected collapse of the excavation or part thereof
    - After substantial damage to any support
    - After rain

- The results of any inspections must be recorded in a register kept onsite
- Every excavation accessible to the public or that is adjacent to a public road or thoroughfare or that threatens the safety of persons, must be adequately barricaded or fenced off to at least one meter high and as close to the excavation perimeter as practicable
- Provided with warning lights or visible boundary indicators after dark or when visibility is poor
- Upon entering an excavation the requirements of General Safety Regulation 5 must be observed:
- Any confined space may only be entered after the air quality has been tested to ensure that it is safe to breathe and does not contain any flammable or noxious air mixture.
- The confined space must be purged and ventilated of any hazardous or flammable gas, vapor, dust or fumes
- The safe atmosphere must be maintained
- Employees are to be provided with breathing apparatus and wearing a safety harness with a rope with the free end of the rope being continuously attended to by a person outside the confined space
- Furthermore, an additional person, trained in resuscitation, to be in full-time attendance immediately outside the confined space
- Additional serviceable breathing and rescue apparatus is kept immediately outside the confined space for rescue purposes

- All pipes, ducts etcetera that may leak into the confined space to be blanked off sufficiently to prevent any leakage or seepage
- The employer must ensure that all employees have left the confined space after the completion of work
- Where flammable gas is present on or in a confined space no work may be performed in close proximity to the flammable atmosphere that may ignite the flammable gas or vapor.

SI 5.26 WORKING IN CONFINED SPACES (SUCH AS MANHOLES) SI 5.26.1

VENTILATION

The confined space or manhole cover and two adjacent covers must be opened (*i.e. a total of three manholes*) and the confined space or manhole be allowed to ventilate for at least 15 minutes before entering the manhole. All open manholes must be barricaded and manned at all times.

A gas monitor must be lowered to the bottom of the confined space or manhole with a rope to test the presence of any toxic/flammable gas. If any gas is detected, the space or line must be force ventilated by means of a blower for at least 15 minutes where after the air must be tested again. Under no circumstances may any space or manhole be entered while there is a toxic/flammable gas present.

After the undertaking of the necessary work, the person in charge of the activities must confirm that all the employees are accounted for and ensure that all the manholes are properly closed and barricading removed.

SI 5.26.2 LATERAL SUPPORT

Lateral support is a specialized operation. The results of the preliminary examination of the structure to be underpinned and any adjacent structure will determent the working method to be adopted.

The Engineer in charge must specify the precise plan of operations and timetable, together with a list of the necessary material and equipment.
Before the work begins all the equipment and materials required for safety measures should be provided and ready for use.

Lateral support operations should be carried out under the direction of a competent experienced person who should be in constant attendance at the site.

SI 5.26.3 ENTERING A MANHOLE

When entering a confined space or manhole, the person entering the space or manhole must wear a safety harness, fully operational gas detector as well as a self-rescuer. A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the manhole. At least one person on the surface must be trained in basic first-aid (*level 1*).

No person shall remain within a confined space or manhole for a period of more than one hour at a time. A minimum of 5 minute rest periods on the surface must be taken after this period before re- entering.

Should the alarm sound on the gas monitor, the employees must exit the confined space or manhole and the immediate area must also be evacuated immediately. The area must be properly ventilated and re-tested before re-entering the confined space or manhole. Professional support should be called for if necessary.

Employees must be provided with flameproof lighting when entering deep manholes or manholes with flammable gases. No naked lights, smoking or unprotected electrical apparatus which may cause sparks, shall be permitted in any manhole or confined space or in their vicinity.

SI 5.26.4 GENERAL

All employees working in confined spaces or manholes must be issued with fully functioning gas monitoring equipment and safety harnesses as well as self-rescuers where applicable. All these employees must be trained (*including refresher training on a continuous basis*) in the use thereof.

Where over-pumping between manholes is involved, only leak free pumping machines and conveyance tubes must be used and allowed.

SI 5.26.5 SAFETY EQUIPMENT

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

SI 5.26.6 GENERAL RECORDS

The following records shall be implemented and maintained by the Principal Contractor:

- Confined space entry permits
- Confined space entry registers
- Safety harness registers

SI 5.26.7 TRAINING

All employees that have to enter a confined space or manholes must be formally trained before being required to enter such areas (*new employees to complete this training before working in a confined space*).

Refresher courses must be attended by employees at least every 2 years or immediately if new methodologies or equipment are adopted or acquired.

Continuous onsite training and support by supervisory staffshould be undertaken.

SI 5.27 TEMPORARY WORKS

Temporary Works must be carried out under the supervision of competent person designated in writing. Temporary Works structures must be so designed, erected, supported, braced and maintained that it will be able to support any vertical or lateral loads that may be applied.

No load may be imposed onto the structure that the structure is not designed to carry.

Temporary Works must be erected in accordance with the structural or brick wall design drawings for such Temporary Works and if there is any uncertainty, the designer must be consulted before proceeding with the erection/use of the Temporary Works.

All drawings pertaining to the Temporary Works must be kept available on site.

All equipment used in the erection of Temporary Works must be checked by a competent person before use.

The foundation or base upon which the Temporary Works is erected must be able to bear the weight and keep the structure stable.

Employees erecting Temporary Works must be trained in the safe work procedures for the erection, moving and dismantling of the Temporary Works.

Safe access and emergency escape must be provided for employees.

A competent person must inspect the Temporary Works structures that have been erected before, during and after pouring of concrete or the placing of any other load and thereafter daily until the Temporary Works is stripped. The results of all inspections must be recorded in a register kept on site.

The Temporary Works must be left in place until the designated competent person has authorised its stripping in writing.

Any damaged Temporary Works must be repaired and/or rectified without delay. Deck

panels must be secured against displacement.

The slipping of employees and other persons on release agents on deck panels must be prevented at all times.

Employees' health must be protected against the use of solvents, oils or other similar substances.

SI 5.28 DEMOLITION WORK

Demolition work must be carried out under the supervision of a competent person who has been appointed in writing.

- A detailed structural or brick wall engineering survey of the structure to be demolished must be carried out and a method statement on the procedure to be followed in demolishing the structure or brick wall must be developed by a competent person, before any demolition may be commenced
- As demolishing progresses the structural or brick wall or brick wall integrity of the structure must be checked at intervals as determined in the method statement by the appointed competent person in order to prevent any premature collapse.

Steps must be taken to ensure that where a structure or brick wall is being demolished:

- No floor, roof or any other part of the structure is overloaded with debris or material that would make it unsafe
- Precautions are taken to prevent the collapse of the structure or brick wall when any frame or support is cut or removed
- Shoring or propping is applied where necessary
- No employee is required or allowed to work under unsupported overhanging material; and
- The stability of an adjacent building, structure or brick wall or road is maintained at all times
- The location and nature of any existing services such as water, electricity, and gas etcetera must be established before any demolition is commenced with and any service that may be affected by the demolition must be protected and made safe for employees and other persons
- Every stairwell in a building being demolished must be adequately illuminated
- Convenient and safe means of access must be provided
- A catch platform or net must be erected over every entrance to the building or structure being demolished where the likelihood exists of material or debris falling on employees and/or persons entering and leaving and every other area where the likelihood exists of material or debris falling on employees and/or persons must be fenced or barricaded
- No material may be dropped on the outside of the building unless the area into which it is dropped is fenced off or barricaded.

Waste and debris may only be disposed of from a height in a chute with the following design:

- Adequately constructed and rigidly fastened
- Inclined >45 degrees and enclosed on all four sides
- Fitted with a gate or control mechanism to control the flow of material that may not freefall down the chute
- Discharged into a container or a barricaded area; and
- Demolition equipment may only be used on floors or slabs that are able to support it.

Asbestos related work must be conducted to the requirements of the Asbestos Regulations promulgated under the OHS ACT and in particular Asbestos Regulation 21, i.e.:

- Demolition of asbestos may only be carried out by a registered (*with the Department of Labour*) asbestos contractor
- All asbestos materials likely to become airborne must be identified; and
- A plan of work must be submitted for approval to an Approved Asbestos Inspection Authority (*AAIA*), whom is approved by the Department of Labour, 30 days prior to commencement of demolishing work unless the plan was drawn up by an AAIA and a signed *(by all parties)* copy is submitted to the Department of Labour 14 days before commencement of the demolishing.

During demolition work:

- All asbestos containing material must be disposed of safely
- Employees must be issued with appropriate PPE and the proper use thereof enforced; and

- After the demolition has been completed the area/premises must be thoroughly checked to ensure that all asbestos waste has been removed
- No employee is allowed to:
  - Use compressed air or permit the use of compressed air to remove asbestos dust from any surface or employee or person;
  - Smoke, eat, drink or keep food or beverages in an area not specifically designated for this; and
  - Apply asbestos by spraying.
- Lead related work must be conducted to the requirements of the Lead Regulations promulgated under the OHS Act
- Where demolition works will involve the use of explosives, a method statement must be developed by a competent person in accordance with applicable explosives legislation.

SI 5.29 EXPLOSIVE POWERED TOOLS

The Principal Contractor shall not use or permit any person to use an explosive powered tool, unless:

- it is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles
- The firing mechanism is so designed that the explosive powered tool will not function unless-
- It is held against the surface with a force of at least twice its weight; and
- The angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle, provided that the provisions of this requirement will not apply to explosive powered tools in which the energy of the cartridge is transmitted to the bolts, nails or similar relevant objects by means of an intermediate piston which has a limited distance of travel.

The Principal Contractor shall ensure that:

- Only cartridges suited for the explosive powered tool and the work to be performed are used;
- The explosive powered tool is cleaned and examined daily before use and as often as may be necessary for its safe operation by a competent person who has been appointed
- That the safety devices are in proper working order prior to use
- When not in use, the explosive powered tool and the cartridges are locked up in a safe place, which is inaccessible to unauthorised persons
- The explosive powered tool is not stored in a loaded condition
- A warning notice is displayed in a conspicuous manner wherever the explosive powered tool is used
- The issuing and collection of cartridges and nails or studs are- controlled and done in writing by a person having been appointed in writing; and
- Recorded in a register and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges;

The Principal Contractor shall not permit or require any person to use an explosive powered tool unless such person has been:

- Provided with and uses suitable protective equipment; and
- Trained in the operation, maintenance and use of such tool.

SI 5.30 WELDING, FLAME CUTTING OR SIMILAR OPERATIONS

A competent person will be appointed to supervise welding, flame cutting or similar operations on site. The following rules will govern all welding and flame cutting or similar operations:

- The welder will be trained regarding the safe use/operation of the equipment
- The welder and his assistant will be provided with effective and appropriate personal protective equipment and/or clothing
- Cables and electrode holders will be effectively insulated
- The workplace will be effectively screened off to prevent bystanders from being affected by the welding rays or they will be provided with protective equipment
- Special precautions will be taken where welding is undertaken in confined spaces e.g. proper and sufficient ventilation will be provided
- In wet or damp conditions the welding equipment and the welder will be properly insulated and someone will be on standby to assist in the event of any emergency
- A qualified person will certify in writing that it is safe to enter and work in a specific confined space before welding or flame cutting is undertaken
- No welding, flame cutting, grinding, soldering or similar work shall be undertaken in respect of any drum, vessels or similar object or container where such object or container:
    - Is completely closed, unless the rise in internal pressure cannot render in dangerous; or
    - Contains any substance which, under the action of heat may explode or react to form dangerous or poisonous substances.
- Where pressure vessels/welding cylinders containing oxygen or acetylene are transported or used, the proper precautionary measures will be taken against bumping, falling, rolling etcetera.
- Gas welding hoses may only be joined with approved connectors and clamps
- No oil or grease may be applied to oxygen valves and fittings
- It is a sound practice to store pressure vessels and/or welding cylinders vertically and to secure them by means of a chain
- Acetylene cylinders may never be inclined in excess of 45º
- Proper and adequate fire prevention measures will be instituted and maintained for as long as the welding continues; and
- Where explosive and/or flammable vapors are present, welding will be done under "*hot work*" permits.

SI 5.31 TRANSPORTATION OF EMPLOYEES

Any vehicle used to transport employees must have seats firmly secured and adequate for the number of employees to be carried.
The Principal Contractor shall not allow employees to be transported in a goods vehicle unless the portion of the vehicle in which the employees are being conveyed is enclosed to a height of:

- at least 350 mm above the surface on which employees are seated; or
- at least 900 mm above the surface on which employees are standing,

in a manner and with a material of sufficient strength to prevent employees from falling from such vehicle when it is in motion.

SI 5.32 PILING DRIVING OPERATIONS

The Contractor appointed to do Piling Driving Operations will be competent and will also appointed.

The area where Piling Driving Operation is to be done will be barricaded. The necessary signs will be promptly displayed.

Daily checklist will be completed on piling machines and operators will comply with Construction Regulation 23(1)(k).

The Method statement and Risk assessment will be available.

SI 5.33 HEALTH AND SAFETY POLICY

The Principal Contractor has to provide the Client, as an annexure to the Health and Safety Plan, with a detailed Health and Safety Policy outlining the Principal Contractor's stance on and principles adopted for Health and Safety.

SI 5.34 COST FOR HEALTH AND SAFETY MEASURES DURING THE CONSTRUCTION PROCESS

To ensure that the appointed Principal Contractor comply with Construction Regulation 5(1)(g) and have made provision for the cost of Health and Safety measures during the construction process.

SI 5.35 SITE ACCESS

The owner of any land on which excavation work is in progress or on any building is erected or demolished shall take precautions in the working area and on surrounding roads and footways to limit to a reasonable level the amount of dust arising from the work or surroundings thereof.

Access will be through the contractor's entrance. **Proper site identification must be issued to all workers.**

No person shall during the course of any building, demolition or excavation work use any machine, machinery, engine, apparatus, tool or contrivance, which in the opinion of the local authority may unreasonably disturb or interfere with the amenity of the neighbourhood.

The working hours state in Regulation F6(2)(a) of the National Building Regulations and Building Standards 103/1977 to be strictly obeyed:

i. Working hours: Monday – Friday before 07:00 or after 18:00 on any day other than those days contemplated in subparagraphs ii and iii.
ii. Saturdays: before 07:00 or after 15:00.
iii. Public Holidays & Sundays: no work.

- Working on site outside these hours is prohibited unless arrangements have been made with the Project Manager for competent supervision and the correct equipment will be on site.

- The site will be adequately fenced or hoarded and access to the site shall be controlled, signs will be placed on gates/ fence warning public of construction area. All visitors/ deliveries shall be recorded in the visitor's book in site/ foreman office.

SI 5.36 SITE ORGANOGRAM

The Principal Contractor will display a site organogram and 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 are included and available in the site office.

SI 5.37 DUTY TO INFORM

The Principal Contractor will inform the CLIENT of any information that is not covered in the Health and Safety Specifications.

SI 6 MEASUREMENT AND PAYMENT SI

6.1 MEASUREMENT AND PAYMENT

SI 6.1.1 The scheduled items for health and safety will be included in the preliminary and general section of the schedule of quantities. Measurement will be in terms of Clause 8.1.2 of SABS 1200 A.

SI 6.1.2 The Contractor shall price all items scheduled in this section of the schedule of quantities to enable the Employer to comply with clause 5.1(g) of the Construction Regulations, 2014. Failure by the Contractor to price these items will force the Employer to reject the Contractor's tender in terms of clause 5.1(h) of the Construction Regulations, 2014.

SI 6.1.3 Payment for the scheduled items will be in terms of clause 8.2 of SABS 1200 A.

SI 6.2 SCHEDULING ITEMS SI

6.2.1 FIXED-CHARGE ITEMS

a) Preparation of Health and Safety Plan ..... Unit: Sum

The sum shall cover all costs involved in the preparing the Health and Safety Plan (which includes the risk assessment), which shall include the preparation of all permit applications and notifications as required by this specification and shall include the employment cost of all health and safety personnel employed for the preparation of the Contractor's Health and Safety Plan.

b) Health and Safety Training (site specific and other)..... Unit: sum

The sum shall cover all costs involved in preparation of all the necessary Health and Safety Induction Training materials required from the training of the Contractor's employees, Subcontractors and all visitors to the Works.

c) Personal Protective Clothing and equipment ..... Unit: Sum

The sum shall cover all costs involved in the initial provision of all personal protective clothing and equipment for the Contractor's employees and Subcontractors and any visitors to the Works, as required by this specification (which includes the requirements of the Occupational health and Safety Act, 1993 and its regulations, as amended)

d) Fences, Signs and Barricades ..... Unit: Sum

The sum shall cover all costs involved in the initial provision of all fences, signs and barricades necessary for the protection of all persons, plant, vehicles, equipment or facilities, as required by this specification (which includes the requirements of the Occupational Health and Safety Act, 1993 and its regulations, as amended)

e) Establishment of Safety Administration ..... Unit: Sum

The sum shall cover all costs involved in establishment of all administrative matters required by this specification which shall include, but not be limited to, the establishment of the Health and Safety File.

f) Other Health and safety Fixed-charge Obligations ..... Unit: Sum

The sum shall cover the fixed costs of all other obligations that are required for the safe execution of the Works in accordance with the requirements of this specification and that are not specifically covered in 10.2.1(a),(b),(c),(d) or (e).

SI 6.2.2 TIME-RELATED ITEMS

a) Implementation and maintenance of Health and Safety Plan ..... Unit: Month

The rate shall cover all the monthly costs involved in the implementation and maintenance of the Health and Safety Plan. This shall include but shall not be limited to the following:

1) The employment cost of all health and safety personnel including consultants, health and safety officers, inspectors, supervisors and issuers required in terms of the Contractor's Health and safety Plan,
2) Updating the Health and safety Plan as needed.
3) Carrying out of periodic audits and follow-up audits,
4) Compilation of ongoing risk assessments and risk assessment reports as are required by the Works,
5) Convening of regular safety meetings with the Safety Representatives,
6) Accompanying and supporting the Employer or his Safety Agent during ad hoc audits,
7) Compilation of monthly safety reports and statistics for the Employer or his Safety Agent.

b) Implementation and maintenance of Training ..... Unit: Month

The rate shall cover all the monthly costs involved in the implementation of the induction training of the Contractor's employees, Subcontractors and all visitors to the Works.

c) Maintenance of Personal Protective Clothing and Equipment .....Unit: Month

The rate shall cover all the monthly costs involved in maintenance, repair or replacement of personal protective clothing required by the Contractor's employees or Subcontractors and all visitors to the Works.

d) Maintenance of Fences, Signs and Barricades ..... Unit: Month

The rate shall cover all the monthly costs involved in maintenance, repair or replacement for whatever reason of fences, signs and barricades used for the Works. The rate shall include for the provision of security guards for the safeguarding of the items provided should this be necessary.

e) Implementation and maintenance of Safety Administration..... Unit: Month

The rate shall cover all the monthly costs involved in establishment of all administrative matters required by his specification which shall include, but not limited to, the maintenance of the Health and Safety File or the completion and recording of the safety check lists required by this specification.

f) Other Health and Safety Time-related Obligations .....Unit: Month

The rate shall cover all the monthly time-related costs of all other obligations that are required for the proper execution of the Works in accordance with the requirements of this specification and that are not specifically covered in 10.2.2(a), (b), (c), (d) or (e).

SI 7 **MANDATARY AGREEMENT BETWEEN CLIENT AND PRINCIPAL CONTRACTOR**

OCCUPATIONAL HEALTH & SAFETY ACT 85 of 1993
CONSTRUCTION REGULATIONS 2014

1 AGREEMENT WITH MANDATARY

In terms of Section 37(1) & (2)

1.1 WRITTEN AGREEMENT ENTERED INTO AND BETWEEN

_____

(Hereinafter referred to as Client)

1.1.1 **AND**

1.2 _____ **(PRINCIPAL CONTRACTOR)**

AGREEMENT WITH MANDATARY TO BE COMPLETED IN BLACK INK AND EACH PAGE AND ANY CHANGE MADE TO BE INITIALLED

Occupational Health & Safety Act of 1993 and Construction Regulations 2014

Requirements:

1. Your attention is drawn to "General Duties of Employers to their Employees" as required by Section 8 of the Act
2. You are required to:

2.1 Sign a written "Agreement with Mandatary" as required by Sect 37(1)) 2) of the Act before commencing any work on site.

2.2 Ensure that all your employees receive the necessary Induction Training and have proof of thereof.
Note: *You must ensure that all employees under your control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences.*

2.3 Ensure the provision of Welfare Facilities for your employees as per Construction Regulation 30.

2.4 Provide the Client with your SHE Plan.

2.5 Ensure that Method Statements, Risk Assessments and Safe Work Procedures are done and available.

2.6 Provide the Client with written appointment of the person who is going to supervise the construction per Construction Reg. 8(7).

2.7 Provide the Client with written designation of your nominated Health & Safety Representative as per Section 17(1).
Note: *Your Health & Safety Representative will be expected to attend the Client safety meetings.*

2.8 If you employ more than five (5) persons, you are required to provide your own First Aid Box GSR 3(2).

2.9 If you employ more than ten (10) persons, you are required to provide your own qualified First Aider as per GSR 3(4). ***Note:*** *If you have difficulty in complying with items 2.7 & 2.8 above, you may arrange/come to an agreement with the Client to make use of his First Aid facilities in case of injury. You will be expected to communicate such an agreement to your employees.*

2.10 When working with Hazardous Chemical Substances, comply with HCS Reg. 3.
Note: Asbestos and Lead Regulations are separate.

2.11 When using a Materials Hoist, comply with the requirements of Construction Reg. 19.

2.12 When using Lifting Machines & Lifting Tackle, comply with DMR. 18.
Note*: You may be required to appoint a Banksman to control Lifting / Slinging operations.*

2.13 When erecting / using Scaffolding comply with the requirements of SANS 10085 "Access Scaffolding".

2.14 When erecting / using Suspended Platforms comply with the requirements of Construction Reg. 17.

2.15 When doing Demolition Work, comply with Construction Reg. 14.

2.16 When doing Blasting to comply with Explosives Regulations Chapter 10.

2.17 When doing Excavation Work, comply with Construction Reg. 13.

2.18 When doing Electrical Installations, comply with the requirements of Construction Reg. 24.
Note: *Electrician to provide copy of registration as per Elect. Install. Reg. 9(3).*

2.19 When using Construction Vehicles, comply with Construction Reg. 23.

2.20 When using / erecting Temporary Works, comply with Construction Reg. 12.

2.21 When working over or in close proximity to Water, comply with Construction Reg. 26.

2.22 Ensure that good Housekeeping, Stacking & Storage principles are applied on this project as per Construction Reg. 27 & 28.

2.23 Ensure that appropriate measures are taken to avoid the risk of Fire / Explosion and comply with requirements of Construction Reg. 29.

2.24 If you are going to work at heights a Fall Protection Plan must be submitted (roof work included) as per requirements of Construction Reg. 10.

2.25 When using Explosive Powered Tools, comply with GSR 19.

2.26 When Welding, Flame Cutting / Soldering, comply with GSR 9.

2.27 When working in Confined Spaces, comply with GSR 5.

3 You are responsible for providing your own **legal safety documents** and **registers** to comply with the Act's requirements. *A copy of the OHS Act of 1993 and the Construction Regulations 2014 will be available for perusal in the Client's* ***site*** *office.*

4 You are required to comply with General Safety Regulation 2(1) to (7) and provide your employees with personal protective equipment which will allow them to carry out their work in a safe manner, e.g. hard hats, safety harnesses, gloves, safe footwear, eye protection, ear protection, waterproof clothing etc.

5 Reporting of Incidents and Occupational Diseases shall be done as per General Admin. Regulation 8 (Also see Sect 24 of the Act).

6. Compensation for Occupational Injuries & Diseases Act (No 130 of 1993). You are required to provide the Client/Client with proof of registration with the Compensation Commissioner/Federated Employer(s) Mutual when signing this agreement. If you are not registered, the Client/Client may deduct the necessary amounts from your progress payments and pay it over to the Commissioner to ensure that you are insured. **See Section 80 & 89 of the COID Act.**

Signature:_____ Signature: _____

(Client) (Principal Contractor)

AGREEMENT WITH MANDATARY

In terms of Section 37(1) and (2)

Definition of Mandatary

- Includes an agent, a contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or user

Section 37(1) Whenever an employee does or omits to do any act, which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that-

(a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;

(b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged;and

(c) all reasonable steps were taken by the employer or any such user to prevent any act or mission of the kind in question, the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

Section 37(2) The provisions of subsection (1) shall *mutatis mutandis* apply in the case of a mandatary of any employer or user, **except if the parties have agreed in writing to the arrangements and procedures between them** to ensure compliance by the mandatary with the provisions of this Act.

ACCEPTANCE OF MANDATARY

In terms of the provisions of Section 37(2) of the Occupational Health & Safety Act 1993

I, _____

acting for and on behalf of

_____ **(Company/Close Corporation/ Enterprise/Owner /User)** undertake to ensure that the requirements and provisions of the Act and Regulations are complied with.

Signature: _____ Print Name: _____
(Principal Contractor)

Designation: _____ Date: _____

Mandatary-Workmen's Compensation/Federated Employers Mutual No.: _____

A copy of company/Close corporation "Letter of Good Standing" to be attached.

Signature: _____ Print Name: _____
(Client)

Designation: _____ Date: _____

Company: _____

Project / Site: _____

CLIENT

Construction Regulation 5

5(1) A client must:

(a) prepare a baseline risk assessment for an intended construction work project;
(b) prepare a suitable, sufficiently documented and coherent site specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a)
(k) **to appoint each Principal Contractor in writing for the project or part thereof on a construction site**

APPOINTMENT

I (Client), _____

of: (Company) _____

appoint (Name): _____

as the Principal Contractor for PROJECT/SITE:

_____

_____

CONSTRUCTION COMPANY / CLOSE CORPORATION:

_____

Your attention is drawn to the following requirements:

1. Ensure that the Provincial Director is notified of the intended construction work.
2. Provide the Client with a suitable and sufficiently documented health & safety plan, based on the Client's documented H & S specifications.
3. Take reasonable steps to ensure co-operation between all contractors so as to enable compliance with the Construction Regulations.
4. Provide appointed Contractors with the applicable sections of the health & safety specifications pertaining to their work.
5. Appoint each Contractor in writing for the construction work he/she has to carry out.
6. Take reasonable steps to ensure compliance by Contractors which shall include monthly safety audits
7. Stop any Contractor from executing work which is not in compliance with safety specifications or poses a threat to other persons.
8. Ensure that where changes are brought about to the design / construction, sufficient health & safety information and appropriate resources are made available to Contractors to execute their work safely.
9. Ensure that every Contractor is registered and in good standing with the Compensation Commissioner.
10. Ensure that potential Contractors, submitting tenders have made provision for the cost for health & safety during construction.
11. Ensure that a health & safety file, with all documentation required in terms of the Act & Regulations is open & kept available on site.
12. Keep a comprehensive and updated list of all Contractors accountable to the Client; as well as all agreements between the parties and the type of work to be done.
13. On completion of construction work, hand over a consolidated health & safety file to the Client.
14. Notify the Client of all incidents that have to be reported, recorded and investigated as per Sec. 24 of the Act and Gen. Adm. Reg. 8.
15. Ensure that method statements, risk assessments and safe work procedures are in place before commencement of construction work.
16. Ensure that all employees, including those of Contractors, undergo health & safety induction training pertaining to the construction hazards and be in possession of proof of the health & safety induction training given.

Signature: _____ Date: _____

(Client)

Designation: _____

ACCEPTANCE OF APPOINTMENT

I,_____Designation: _____
(Principal Contractor)

hereby accept the requirements of this appointment.

Signature: _____

Date: _____

public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

BASELINE HAZARD IDENTIFICATION & RISK ASSESSMENT

public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS

BASELINE HAZARD IDENTIFICATION & RISK ASSESSMENT

Seriousness rating	Description
1	No injury or illness
2	First-aid treatment case, medical treatment case and temporary discomfort case
3	Medical mitigation case; occupational disease with non-permanent effect
4	Lost Time Injury. Occupational disease with permanent consequence e.g. hearing loss
5	Fatality (as result of incident or occupational disease e.g. asbestosis
6	Multiple fatalities or multiple permanent occupational diseases

Likelihood that the event will occur	
Category	Criteria
E	99% probability, or
	impact is occurring now, or
	Could occur within "days to weeks"
D	Less than 50% probability or
	Balance of probability it will occur, or
	Could occur within "weeks to months"
C	Less than 20% probability, or
	May occur shortly but a distinct probability it will not, or
	Could occur within "months to years"
B	Less than 5% probability
	May occur but not anticipated, or
	Could occur in "years to decades"
A	
	occurrence requires exceptional circumstances
	Only occurs as a "100-year event"

Plot consequence & likelihood in risk matrix to determine risk priority level						
Seriousness	6	III	II	I	I	I
	5	III	II	II	I	I
	4	IV	III	II	I	I
	3	IV	III	II	II	I
	2	IV	IV	III	II	II
	1	IV	IV	III	III	III
		A	B	C	D	E
Likelihood						

Evaluate the risk based on the level of risk determined, as well the Effectiveness of the current risk controls

Priority	Risk ranking	Action required	Escalation
I	Very high	Immediate action	Report to CEO & Client Agent
II	High	Strong mandatory	Report to Contracts Manager & Client Agent
III	Medium	Action possibly at administrative level	Report to Contracts manager
IV	Low	Minor or no action	No escalation required

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
1	Temporary hoarding to separate public and construction work.	The erector must follow the specific position as indicated by the Engineers Drawing. When digging for fence poles, services can be damaged. When fence standards are knocked in it can damage services.	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	S	5	E	5D	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
2	Site establishment	-Safety signs and notice boards not placed close to entrances -Lay down areas not of sufficient size -No toilets provided as per requirements -Not informing employees and public what the site rules are -Damaged/Loose wires exposed at site office. -Unauthorized passage of foreign immigrants or members of public can cause assaults or loss of material	As above	H; S	5	D	5D	As above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
3	Parking of plant vehicle in public road	▪ The practice of unsafe parking can cause damage to structures and equipment and Injuries to people ▪ Damage to underground services	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.		6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
4	Exit/Entry into the public roads	Injuries to pedestrians and/or collisions with private vehicles	As Above	S	6	E	6E	As Above
5	Receiving, off-loading and loading of equipment and/or material	Receiving and off-loading of equipment and material can cause: Damage to structures and equipment Injuries to people Pollution/spillage	As Above	S; E	6	D	6D	As Above
6	Ladders	The unsafe use of ladders can cause: Falls Damage to equipment	As Above	S	6	E	6E	As Above
7	Open Edges	Lack of protection on all open edges can cause falls, serious injuries and even death.	As Above	S	6	E	6E	As Above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
8	Excavations	Lack of shoring or sloping of edges can cause collapse of side walls and can cause bodily harm and even death	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	S	6	D	6D	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
9	Explosive actuated fastening device	Unsafe use or lack of control can cause bodily harm and damage of equipment	As Above	S	6	D	6D	As Above
10	Storage and use of flammable liquids	The unsafe storage and use of flammable liquids can cause damage to equipment and injuries to people, fires	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	H; S; E	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
11	Stacking and storage	Unsafe stacks can cause injuries and damage to material and structure	As Above	S	6	E	6E	As Above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
12	Flame cutting and welding	Unsafe flame cutting and welding can cause: Damage to structure and equipment Injuries of disease to people	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	H; S; E	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
13	Concrete work/pouring	Truck parking or moving into wrong position falling into excavation. Concrete chute not correctly positioned Slipping and falling when trying to control vibrator Concrete load falling or bucket hitting people	As Above	S	6	E	6E	As Above
14	Work at heights	Falling objects Not hooking the safety harness to anchor point Anchor point not strong enough	As Above	S	6	E	6E	As Above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
15	Work at heights	Deliberately dropping materials or equipment Debris, building rubble falling over edges	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	S	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
16	Brickwork/Plastering/ wet trades	Stacking of bricks Incorrect levels position Faulty hand tools, poor standard of scaffolding or trestles Frames and lintels falling Use of angle grinder and brick cutting machine Insufficient space and access problems Working at height over open spaces	As Above	S	6	E	6E	As Above
17	Scaffolding	The erection, use and dismantling of scaffold can cause damage to structure and injuries to people	As Above	S	6	E	6E	As Above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
18	Electric installation	Electrocution, fires, injuries, arc eyes	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	H; S	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
19	Plumbing	Core drilling through post- tension slabs/rebar Flooding of services or electric installations Collapsing of sub-soil drainage	As Above	S	6	E	6E	As Above
18	Fire & sprinkler installation	Incorrect overhead installation, incorrect pressure testing	As Above	S	6	E	6E	As Above
19	Air-conditioning installation	Incorrect installation of ducting can cause collapse Hot works can cause fires.	As Above	S	6	E	6E	As Above
20	Ceiling installation	Incorrect use of explosive power tools Overhead dangers such as materials and tools that can fall	As Above	S	6	E	6E	As Above

No.	Potential hazard	Potential risk	Controls	H-S-E Identifi-cation	S	L	Risk rating	Legal reference
20		Improper use of PPE						
21	Electric tools	Incorrect wiring Incorrect use of equipment Person not properly trained8 Tools not inspected prior to use.	The principal contractor or their appointed contractor should have a detailed risk assessment to reduce the high risk rating to within a lower controlled risk rating The detailed risk assessment by the contractor should be done in such a manner that the Health and Safety of persons, the safe guarding of machinery and structures are assured at all times.	S	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards
22	Finishing	Hand tools used incorrectly Exposure to hazardous materials, dust and inhalants Poor housekeeping causing hazards	As Above	S	6	E	6E	As Above
23	Asbestos	Can cause illnesses when insufficiently contained and controlled.	As Above	H	6	E	6E	Asbestos Regulations 2001
24	Crane operations	Crane not load tested Driver insufficiently trained Slinger not trained to an acceptable level Banks men not available / not trained.	As Above	S	6	E	6E	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

ADDITIONAL SPECIFICATION

SJ COVID-19 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 **WHAT TO DO WHEN AN EMPLOYEE ON SITE BECOMES ILL WITH COVID-19**

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	TEMPERATUREIN	SIGNATURE	TEMPERATURE OUT	SIGNATURE	SECURITY CONTROL SIGNATURE

SJ 03.01.05 **TRAINING ATTENDANCE REGISTER**

Example:

Training Attendance Register			
Training Description:			**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	• Basement and Substructure • Structural Frame • Roofing • Interior First Fix • Interior Second Fix	• Site and management offices
Healthcare facilities, Correctional Centers, Military Bases, Police Stations, Magistrates Offices	**High Risk**	**High Risk**
	• Cladding and Glazing • M+E and Lifts • Interior First Fix • Interior Second Fix	• Scaffolding • Travel to and from site and access to site • Horizontal walkways and vertical access • Staff changing and locker rooms • Showers and toilets • Confined Spaces • Confined Sites
	GUIDLINE **For each construction contract there will be different levels of risk and it will be critical to evaluate the specific risks of each individual project.**	**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 is to maintain a register of all employees and workers on the project, including Sub- Contractors (inclusive of employees and workers) and Professional Team, keeping records of the following information as a minimum (Note: the NIOH document that is currently available): • Name • Age of employee/visitor • Contact Details • Health status • Socio-economic status/unskilled labour (work force) • Accommodation arrangements (work force)	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**: ○ **On site**: As far as possible, work activities must be so arranged that social distance is kept to a minimum of 2 metre. ○ **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**'. ○ Roll players must be limited to Professional Team and principal contractor. ○ Facial Masks must be worn at all times by all roll players. ○ 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 ofanybody 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, eg; 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.	**CONTRACTORAND 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. . **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. . **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. . **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. . **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. . **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 m^2 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 PAYMENT OF WORKERS
SN 08 GENERIC LABOUR INTENSIVE SPECIFICATION SN 09 REPORTING
SN 10 MEASUREMENT AND PAYMENT

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 labor-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.
(d)	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.)
(e)	Public body	refers to a department, trading entity, constitutional institution, municipality, public entity or municipal entity
(f)	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 – Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026

(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. For this contract the Employer has set a minimum Local Labour Target (LLT) 10% of the tendered contract excluding VAT and CPA. This percentage is the minimum amount that should be paid for wages to the 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 partthereof.

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 07.02 Penalty for non-achievement of Local Labour Target (LLT)

The Contractor will be assessed on a quarterly basis in the event that the Contractor fails to substantiate that any failure to achieve the Local Labour Target (LLT) was due to quantitative underruns, the elimination of items, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall pay to the Employer penalties (P) in an amount determined in accordance with the following formula:

$$P = 1 \times \frac{(D - Do)}{(100)} \times NA$$

Where D = tendered Local Labour Target (LLT) percentage.

Do = the Local Labour Target (LLT) which the Employer's Representative, based on the credits passed, certifies as being achieved upon completion of the Contract.

NA = Net Amount, being Tender Sum excluding VAT and CPA P = Rand value of penalty payable.

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 08.01 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 08.01 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 08.01 Trench excavation

All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

SN 08.01 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 08.01 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 08.01 Clearing and grubbing

Grass and small bushes shall be cleared by hand.

SN 08.01 Shaping

All shaping shall be undertaken by hand.

SN 08.01 Loading

All loading shall be done by hand, regardless of the method of haulage.

SN 08.01 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 08.01 Offloading

All material, however transported, is to be off- loaded by hand, unless tipper-trucks are utilised for haulage

SN 08.01 Spreading

All material shall be spread by hand.

SN 08.01 Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved.

SN 08.01 Grassing

All grassing shall be undertaking by sprigging, sodding, or seeding by hand.

SN 08.01 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 08.01 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 08.01 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 08.01 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 08.01 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 08.01 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 08.01 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 08.01 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 08.01 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: worker / day

SN 10.01.02 Technical skills training for EPWP workers for an average of 20 days per EPWP worker.....Unit: worker / day

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 item 3 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.

SN 10.03 PENALTY FOR NOT ACHIEVING THE LOCAL LABOUR TARGET (LLT)

Penalty for not achieving the Local Labour Target (LLT) .....Unit: %

The unit of measurement shall be the percentage (%) difference between the contracted LLT percentage (%) and the actual LLT percentage (%) achieved in the performance of the contract.

PG-03.1 (EC) SITE INFORMATION – GCC 3rd Edition (2015)

Project title:	***GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF CONTRACTOR)***				
Tender no:	*H24/014AI*	**WCS no:**	*056406*	**Reference no**:	H24/014AI

C4 Site Information

Groblersbridge Port of Entry

Groblersbridge Port of Entry is one of the main border posts on the South Africa-Botswana borderline situated close to Limpopo River. It is located on Groblersbrug Farm in the Lephalale Local Municipality, Waterberg District in Limpopo Province. It is approximately 205km from Polokwane City via N11 road and 400km from Pretoria Central via Lephalale Town on R510 road.

Stockpoort Port of Entry

It is located on Leef Voluit Farm, close to the Limpopo River, in the Lephalale Local Municipality, Waterberg District in Limpopo Province. It is approximately 285km from Polokwane City via N11 road and 360km from Pretoria Central via Modimolle Town on R33 road.
The distance between these two ports Stockpoort and Groblersbridge is approximately 100km.

GPS Coordinates

The table below shows the GPS Coordinates for the two (2) Port of entry

Port of Entry	**GPS Coordinates**	
Groblersbridge	22° 59′ 58.88″ S	27° 56′ 38.46″ E
Stockpoort	23°24'7.35"S	27°21'11.27"E

AERIAL PHOTO OF 2 PORTS OF ENTRY



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

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY:
36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS
(APPOINTMENT OF A CONTRACTOR)

DRAWINGS

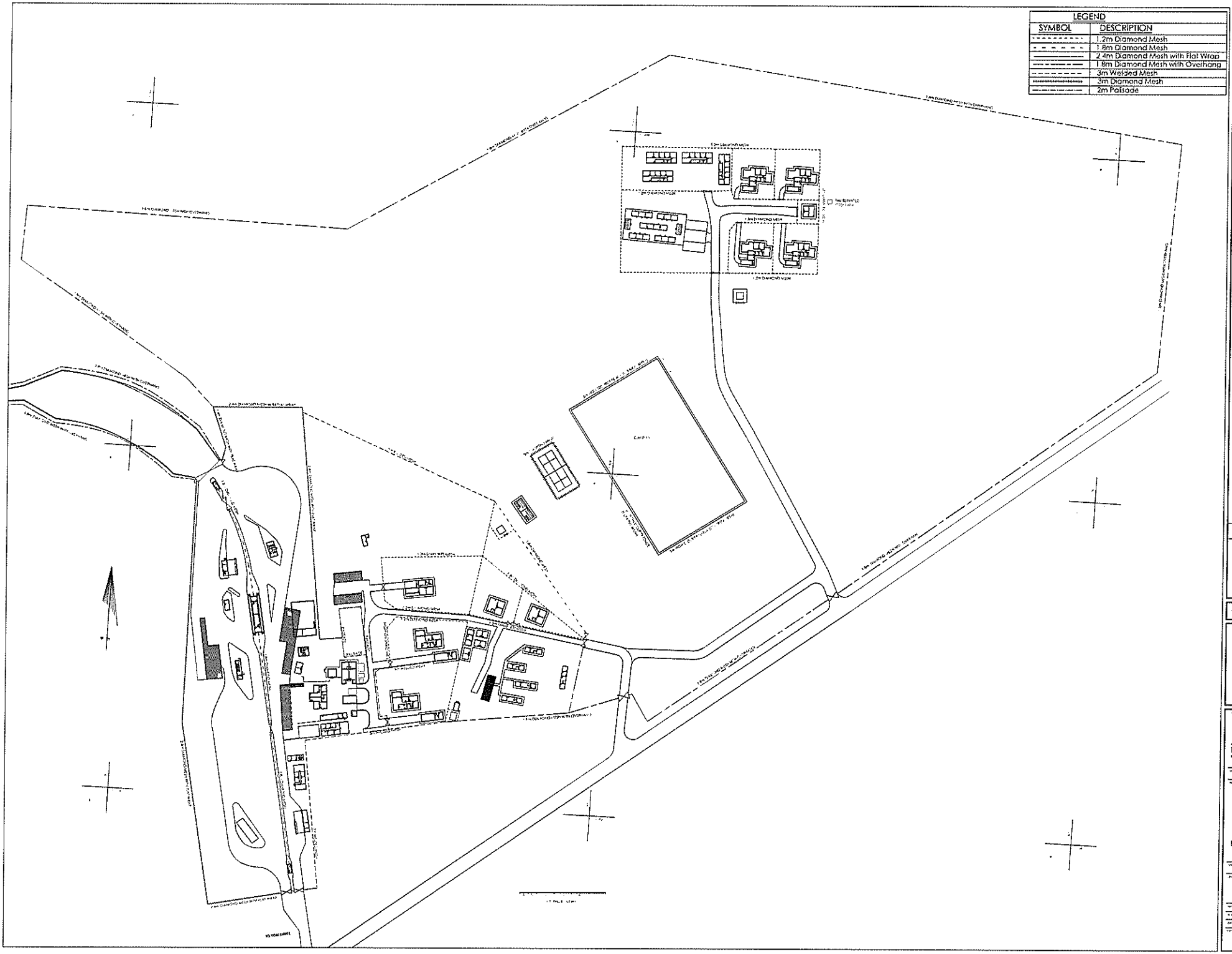
public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

GROBLERSBRIDGE AND STOCKPOORT LAND PORTS OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

LIST OF DRAWINGS

The following drawings shall be issued during the tender period to form part of tender documentation. Where applicable, drawings could be re-issued to the Contractor at commencement of the construction phase. These drawings are for information purposes only.

DRAWING NO.		DESCRIPTION
H22017/S01	:	Groblersbridge Port of Entry – Sewer Layout
H22017/W01	:	Groblersbridge Port of Entry – Water Layout
H22017/E01	:	Groblersbridge Port of Entry – Electrical Layout
H22017/A01	:	Groblersbridge Port of Entry – Site Layout
H22017/S02	:	Stockpoort Port of Entry – Sewer Layout
H22017/W02	:	Stockpoort Port of Entry – Water Layout
H22017/E02	:	Stockpoort Port of Entry – Electrical Layout
H22017/S02	:	Stockpoort Port of Entry – Site Layout
	:	
	:	
	:	
	:	
	:	
	:	



public works

PROFTEAM

CIVIL AND STRUCTURAL ENGINEERING

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS 052734

GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: FENCE DETAIL

J. H. MOLLER

1:1000

J. CAMPHER

08 FEBRUARY 2019

J. H. MOLLER

C5851/01

C5851/01

A 3

DRAWING REGISTER

PROFTEAM
Professional Project Management and Engineering Services

CLIENT:	DEPARTMENT OF PUBLIC WORKS
PROJECT MANAGER:	G K LUKHELE
TENDER NO:	H15/043
WCS No:	WCS 052734
PROJECT TITEL:	GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS MAINTENANCE; SERVICING AND REPAIR OF BUILDINGS; CIVIL; MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

ISSUE DATE			
08/01/2019			

DRAWING TITLE	DRAWING No:	REVISION NUMBER			
GROBLERSBRIDGE PORTS OF ENTRY: DRAWING REGISTE	C5851/00	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: FENCE DETAIL	C5851/01	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: BULK WATER - AREA A	C5851/02	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: BULK WATER - AREA B	C5851/03	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: SEWER NETWORK - AREA A	C5851/04	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: SEWER NETWORK - AREA B	C5851/05	0			
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: STORMWATER DRAINAGE	C5851/01	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: ELECTRICAL POWER AND EQUIPMENT - AREA A	EE10717/00	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: ELECTRICAL POWER AND EQUIPMENT - AREA B	EE10717/01	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: FIRE FIGHTING - AREA A	ME304106/00	0			
GROBLERSBRIDGE SITE LAYOUT PLAN: FIRE FIGHTING - AREA B	ME304106/01	0			

No	DATE	AMENDMENT	DRW

Copyright vests in the Department of Public Works

as built drawings

verified as built drawings as per Contractual Drawing Archive SUBJECT DRAWING REQUIREMENTS

name J. H. MÖLLER
date 08 FEBRUARY 2019
professional registration no. 20100124

last file name C5851/00 paper size A 3

public works
Department: Public Works
REPUBLIC OF SOUTH AFRICA
DIRECTOR-GENERAL
Adv SAM VUKELA

consultant
PROFTEAM
Professional Project Management and Engineering Services

discipline CIVIL AND STRUCTURAL ENGINEERING

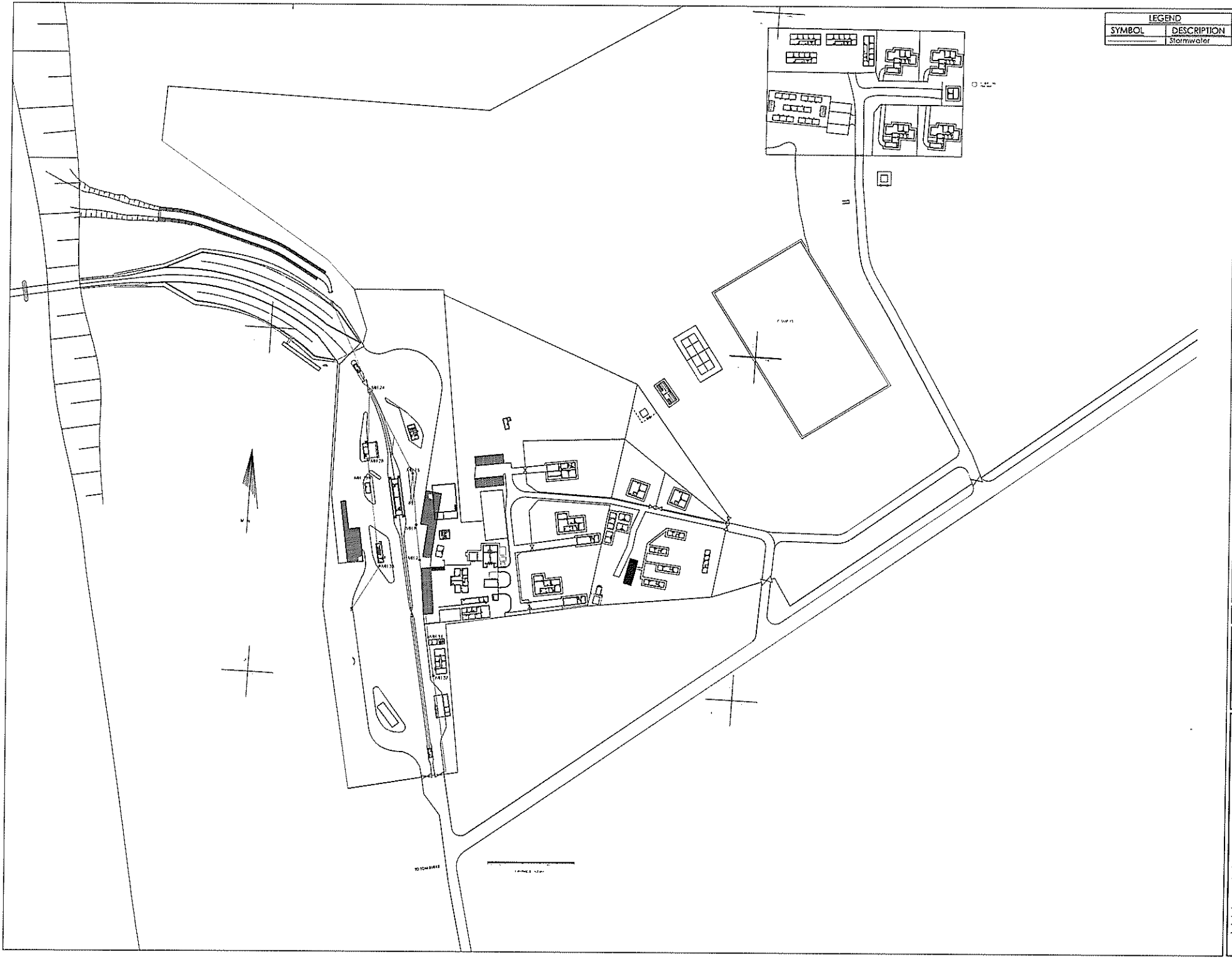
service
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
GROBLERSBRIDGE PORT OF ENTRY: DRAWING REGISTER

ref no. ---	designed J. H. MÖLLER
scale 1:1000	drawn J. CAMPHER
date 08 FEBRUARY 2019	checked J. H. MÖLLER

CPW drawing number
C5851/00



C5851/01

A 3

public works

DIRECTOR-GENERAL

PROFTEAM

Professional Project Management and Engineering Services

CIVIL AND STRUCTURAL ENGINEERING

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS 052734

GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: STORMWATER DRAINAGE

J. H. MOLLER

1:1000

J. CAMPHER

08 FEBRUARY 2019

J. H. MOLLER

C5851/01



LEGEND	
SYMBOL	DESCRIPTION
WM	Water Meter
BIPTAP	Water Tap
MH / IS	Manhole / Inspection
	22mm HDPE
	50mm HDPE
	63mm HDPE
	22mm Copper

No.	DATE	AMENDMENT	D.P.W.

Copyright vests in the Department of Public Works

as-built drawings

certified as-built drawings as per Contractual Drawing Archive AS-BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

cad file name C5851/02 | drawing size A 3

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline CIVIL AND STRUCTURAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title

GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: BULK WATER: AREA A

ref no — designed J. H. MÖLLER

scale 1:750 drawn J. CAMPHER

date 08 FEBRUARY 2019 checked J. H. MÖLLER

DPW drawing number

C5851/02

Y -96 999

X +2 544 480

WG 27

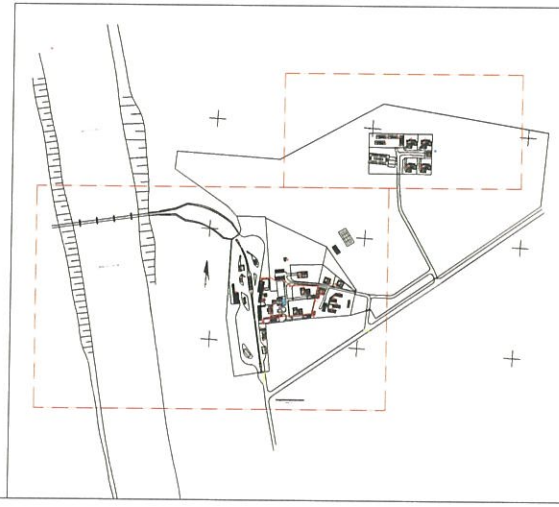
LEGEND	
SYMBOL	DESCRIPTION
	9kg DCP with Cabinet
	9kg DCP No Cabinet
	5kg CO_2 No Cabinet
	2.5kg DCP No Cabinet
	Fire Hydrant

50 51 49 52 53 54 56 57 59 61a 64 61b 60

16kl ELEVATED STEEL TANK

5 10 20 30 40 50

GRAPHIC SCALE (m)



No	DATE	AMENDMENT	D.P.W.

Copyright vests in the Department of Public Works

as built drawings

verified as built drawings as per Certificated Drawing Archive AS-BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

Job file name ME304106/01 Drawing size A 3

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline MECHANICAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: FIRE FIGHTING: AREA B

ref no --- designed J. H. MÖLLER

scale 1:250 drawn J. CAMPHER

date 08 FEBRUARY 2019 checked J. H. MÖLLER

DPW drawing number ME304106/01

Y - 96 980

X + 2 544 490

WQ 287

LEGEND	
SYMBOL	DESCRIPTION
	Cable (Size as indicated)
	Electrical Kiosk
	250W HPS
	250W HPS Flood lights
	250W HPS Streetlights
	80W Post Taps
	279 LED Light
	400W HPS High Mast
G	Generator Room

B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 E4

KIOSK 5 KIOSK 6 KIOSK 7

5 10 20 30 40 50

GRAPHIC SCALE (m)

CABLE LEGEND

FROM	TO	DESCRIPTION
Generator	Kiosk 1	16mm² 4 CORE
Generator	Kiosk 2	35mm² 4 CORE
Generator	Kiosk 3	35mm² 4 CORE
Generator	Kiosk 4	35mm² 4 CORE
Generator	A1	6 x 2mm
Generator	A2	6 x 2mm
Generator	A3	16mm² 4 CORE
Generator	A4	6 x 2mm
Generator	A5	10 x 2mm
Generator	A6	16mm² 3 CORE
Generator	A7	16 x 2mm
Generator	A8	16mm² 3 CORE
A8	A9	16mm² 3 CORE
Generator	A10	16mm² 3 CORE
Generator	A11	16mm² 4 CORE
Generator	A12	16mm² 3 CORE
Generator	A13	4mm² 3 CORE
Generator	A14	16mm² 4 CORE
A14	A15	25mm² 3 CORE
Kiosk 1	Generator	95mm² 4 CORE
Kiosk 1	Kiosk 5	70mm² 4 CORE BUNDLE CONDUCTOR
Kiosk 1	Highmast	4mm² 4 CORE
Kiosk 1	A15	6mm² 4 CORE
Kiosk 2	B1	16 x 2mm
Kiosk 2	B2	16 x 2mm
Kiosk 2	B3	10 x 2mm
Kiosk 2	B4	16 x 2mm
Kiosk 2	B5	16 x 2mm
Kiosk 2	B6	16 x 2mm
B6	B7	6mm² 3 CORE
Kiosk 2	B8	16 x 2mm
Kiosk 3	C1	16 x 2mm
Kiosk 3	C2	16 x 2mm
Kiosk 3	C3	16 x 2mm
Kiosk 3	C6	16mm² 3 CORE
C2	C4	6mm² 3 CORE
C3	C5	6mm² 3 CORE
Kiosk 4	D1	6mm² 3 CORE
Kiosk 4	D2	10 x 2mm
Kiosk 4	D3	10 x 2mm
Kiosk 4	D4	10 x 2mm
Kiosk 4	D5	10 x 2mm
Kiosk 4	D6	10 x 2mm
Kiosk 4	D7	10 x 2mm
Kiosk 4	D8	10 x 2mm
Kiosk 4	D9	10 x 2mm
Kiosk 4	D10	10 x 2mm
Kiosk 4	D11	10 x 2mm
Kiosk 4	D12	10 x 2mm
Kiosk 4	D13	16mm² 3 CORE
Kiosk 5	E1	10 x 2mm
Kiosk 5	E2	10 x 2mm
Kiosk 5	E3	10 x 2mm
Kiosk 5	E4	10 x 2mm
Kiosk 5	Kiosk 7	25mm² 4 CORE
Kiosk 5	Kiosk 6	25mm² 4 CORE
Kiosk 6	F1	10 x 2mm
Kiosk 6	F2	10 x 2mm
Kiosk 6	F3	10 x 2mm
Kiosk 6	F4	10 x 2mm
Kiosk 6	F5	10 x 2mm
Kiosk 7	G1	16mm² 3 CORE
Kiosk 7	G2	16mm² 3 CORE
Kiosk 7	G3	16mm² 3 CORE
Kiosk 7	G4	16mm² 3 CORE
Kiosk 7	G5	6mm² 3 CORE
Kiosk 7	G6	6mm² 3 CORE
Kiosk 7	G7	16mm² 3 CORE
Light A1	Light A12	6mm² 3 CORE
Light A12	Light A18	6mm² 4 CORE
Light A12	Traffic Light	6mm² 4 CORE
Light C1	Light C16	6mm² 3 CORE
Light P1	Light P10	6mm² 3 CORE
Light S1	Light S5	6mm² 3 CORE



No	DATE	AMENDMENT	D.P.W.

Copyright vests in the Department of Public Works

As-built drawings

verified as built drawings as per Controlled Drawing Archive AS-BUILT DRAWING NO. (IF APPLICABLE)

Name J. H. MÖLLER

Date 08 FEBRUARY 2019

professional registration no. 20100124

CAD file name EE10717/01

Paper size A 3

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline ELECTRICAL ENGINEERING

service

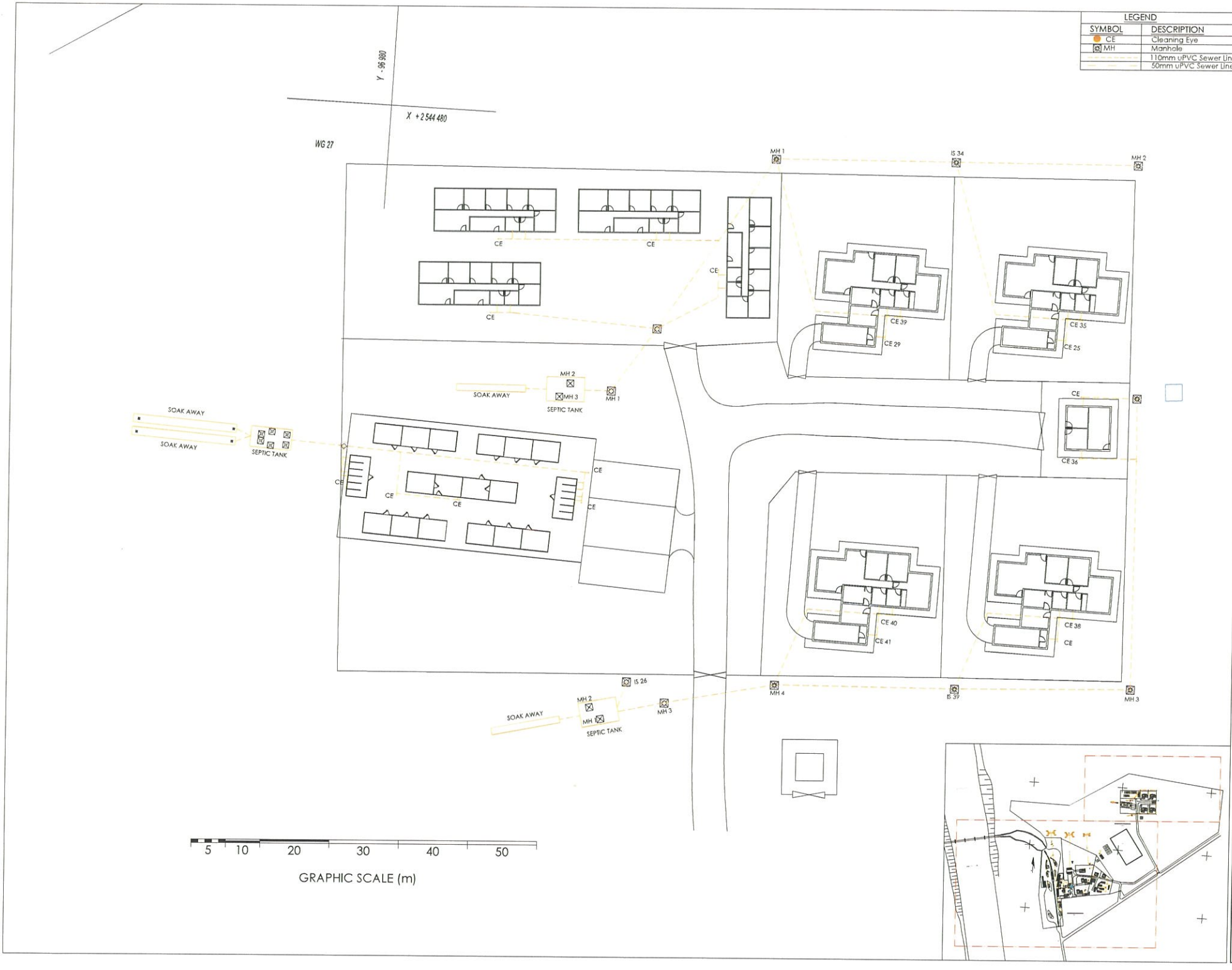
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: ELECTRICAL POWER AND EQUIPMENT: AREA B

ref no. —	designed J. H. MÖLLER
scale 1:250	drawn J. CAMPHER
date 08 FEBRUARY 2019	checked J. H. MÖLLER

CPWS drawing number EE10717/01



No.	DATE	AMENDMENT	D.P.W.

© Copyright vests in the Department of Public Works

as built drawings

verified as built drawings as per Contractual Drawing Number AS-BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

cad file name C5851/05

drawing size A 3

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline CIVIL AND STRUCTURAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title

GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: SEWER NETWORK: AREA B

ref no. ---

scale 1:250

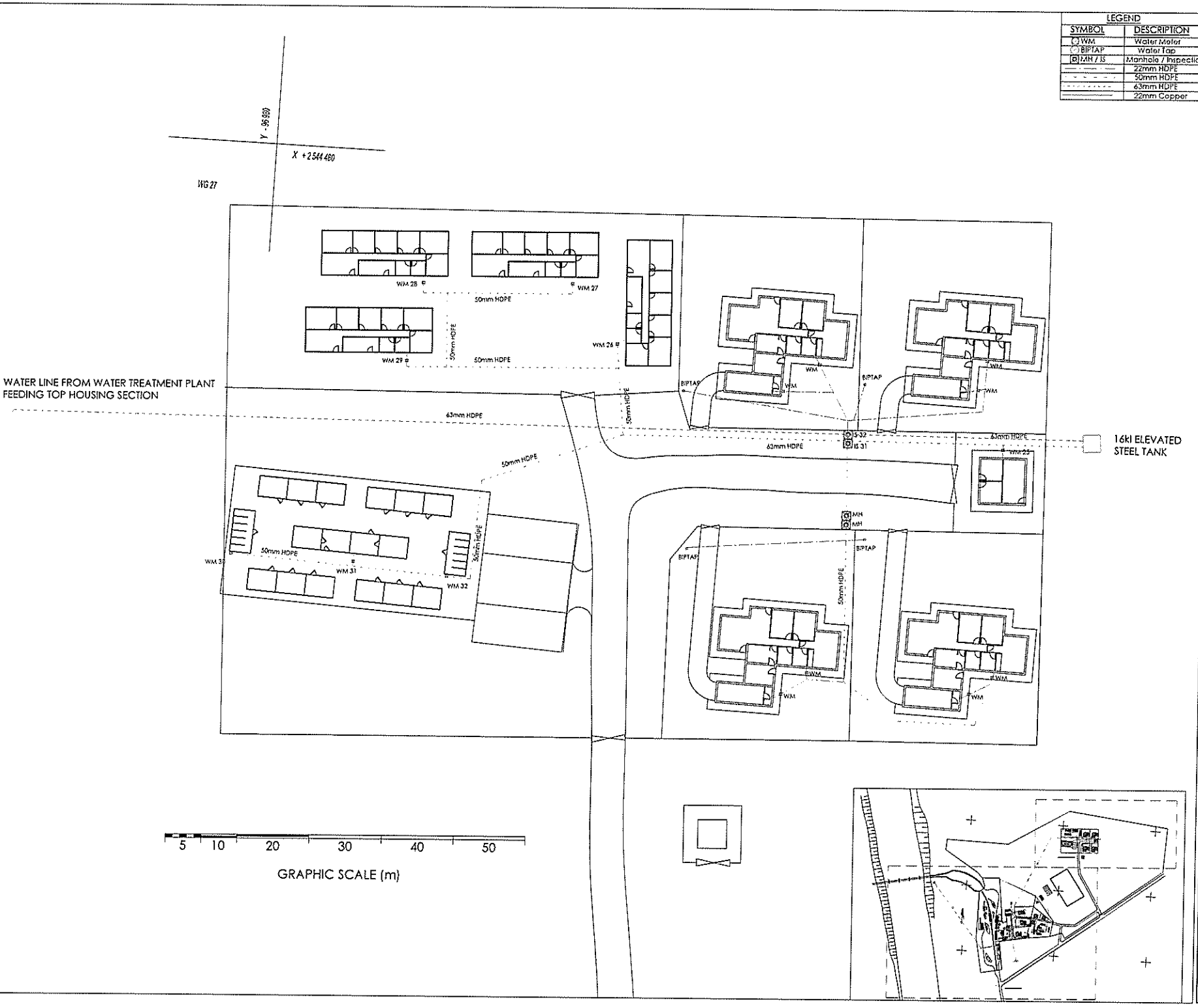
date 08 FEBRUARY 2019

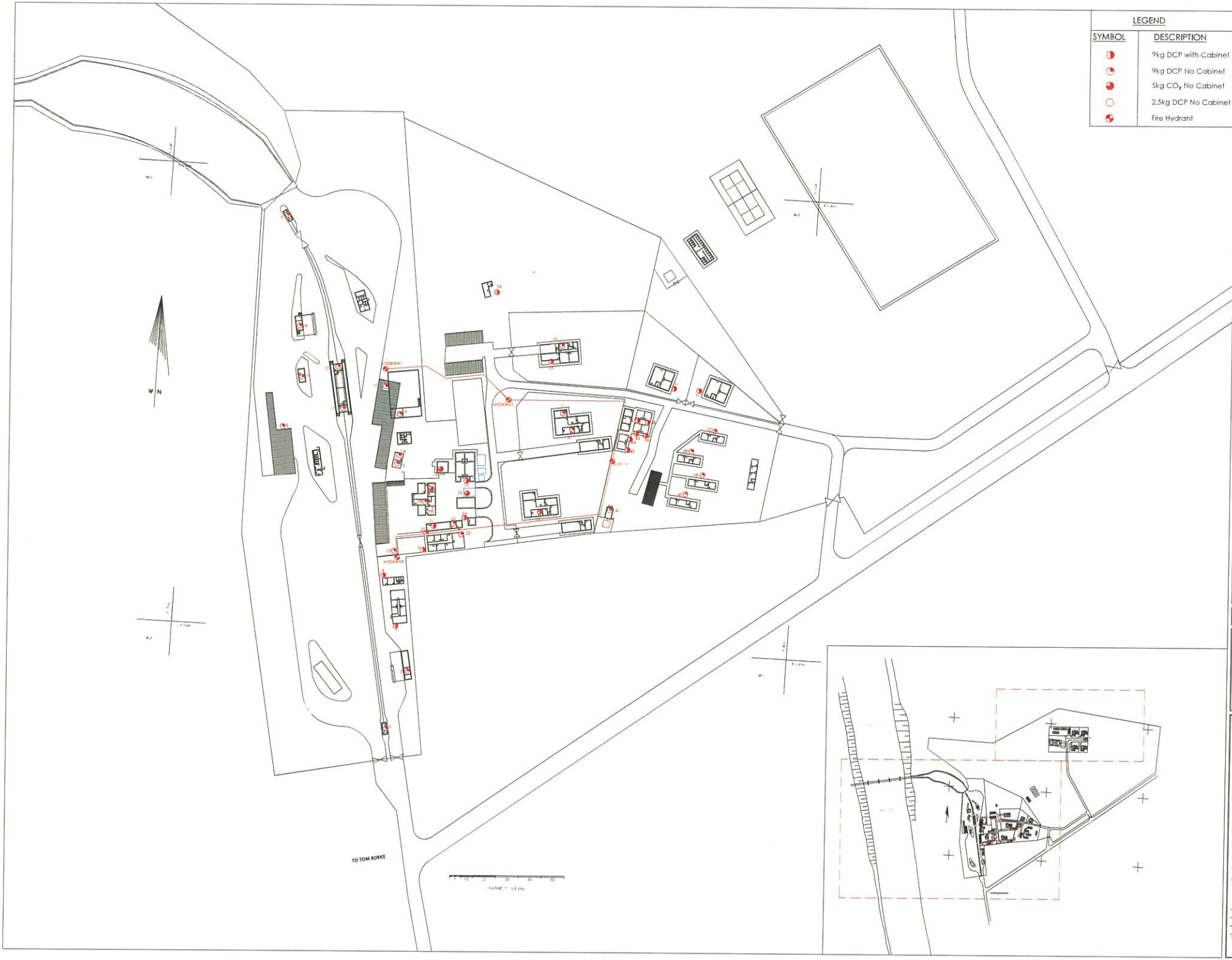
DPW drawing number C5851/05

designed J. H. MÖLLER

drawn J. CAMPHER

checked J. H. MÖLLER


LEGEND
SYMBOL
DESCRIPTION
WM
Water Meter
BIPTAP
Water Tap
MH / IS
Manhole / Inspection
22mm HDPE
50mm HDPE
63mm HDPE
22mm Copper
Y - 96 690
X +2 544 460
WG 27
WM 28
WM 27
WM 29
WM 26
50mm HDPE
WATER LINE FROM WATER TREATMENT PLANT FEEDING TOP HOUSING SECTION
63mm HDPE
BIPTAP
IS 32
IS 31
16kl ELEVATED STEEL TANK
WM 25
MH
WM 31
WM 32
5
10
20
30
40
50
GRAPHIC SCALE (m)
public works
DIRECTOR-GENERAL
PROFTEAM
CIVIL AND STRUCTURAL ENGINEERING
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS
WCS 052734
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: BULK WATER: AREA B
J. H. MÖLLER
08 FEBRUARY 2019
C5851/03
A 3
C5851/03



No.	DATE	AMENDMENT	D.P.W.

Copyright vests in the Department of Public Works

As built drawings

certified as built drawings as per Centralised Drawing Archive AUDIT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

cad file name ME304106/00 paper size A 3

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM MJIKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline MECHANICAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: FIRE FIGHTING: AREA A

ref no —
designed J. H. MÖLLER
scale 1:750
drawn J. CAMPHER
date 08 FEBRUARY 2019
checked J. H. MÖLLER

CPWS drawing number
ME304106/00



LEGEND	
SYMBOL	DESCRIPTION
	Cable (Size as indicated)
K	Electrical Kiosk
	250W HPS
	250W HPS Flood lights
	250W HPS Streetlights
	80W Post Tops
	279 LED Light
	400W HPS High Mast
G	Generator Room

CABLE LEGEND		
FROM	TO	DESCRIPTION
Generator	Kiosk 1	16mm² 4 CORE
Generator	Kiosk 2	35mm² 4 CORE
Generator	Kiosk 3	35mm² 4 CORE
Generator	Kiosk 4	35mm² 4 CORE
Generator	A1	6 x 2mm
Generator	A2	6 x 2mm
Generator	A3	16mm² 4 CORE
Generator	A4	6 x 2mm
Generator	A5	10 x 2mm
Generator	A6	16mm² 3 CORE
Generator	A7	16 x 2mm
Generator	A8	16mm² 3 CORE
A8	A9	16mm² 3 CORE
Generator	A10	16mm² 3 CORE
Generator	A11	16mm² 4 CORE
Generator	A12	16mm² 3 CORE
Generator	A13	4mm² 3 CORE
Generator	A14	16mm² 4 CORE
A14	A15	25mm² 3 CORE
Kiosk 1	Generator	95mm² 4 CORE
Kinsk 1	Kiosk 5	70mm² 4 CORE BUNDLE CONDUCTOR
Kiosk 1	Highmast	4mm² 4 CORE
Kiosk 1	A15	6mm² 4 CORE
Kiosk 2	B1	16 x 2mm
Kiosk 2	B2	16 x 2mm
Kiosk 2	B3	10 x 2mm
Kiosk 2	B4	16 x 2mm
Kiosk 2	B5	16 x 2mm
Kiosk 2	B6	16 x 2mm
B6	B7	6mm² 3 CORE
Kiosk 2	B8	16 x 2mm
Kiosk 3	C1	16 x 2mm
Kiosk 3	C2	16 x 2mm
Kiosk 3	C3	16 x 2mm
Kiosk 3	C6	16mm² 3 CORE
C2	C4	6mm² 3 CORE
C3	C5	6mm² 3 CORE
Kiosk 4	D1	6mm² 3 CORE
Kinsk 4	D2	10 x 2mm
Kiosk 4	D3	10 x 2mm
Kiosk 4	D4	10 x 2mm
Kiosk 4	D5	10 x 2mm
Kiosk 4	D6	10 x 2mm
Kiosk 4	D7	10 x 2mm
Kiosk 4	D8	10 x 2mm
Kiosk 4	D9	10 x 2mm
Kiosk 4	D10	10 x 2mm
Kiosk 4	D11	10 x 2mm
Kiosk 4	D12	10 x 2mm
Kiosk 4	D13	16mm² 3 CORE
Kiosk 5	E1	10 x 2mm
Kiosk 5	E2	10 x 2mm
Kiosk 5	E3	10 x 2mm
Kiosk 5	E4	10 x 2mm
Kiosk 5	Kiosk 7	25mm² 4 CORE
Kiosk 5	Kiosk 6	25mm² 4 CORE
Kiosk 6	F1	10 x 2mm
Kiosk 6	F2	10 x 2mm
Kiosk 6	F3	10 x 2mm
Kiosk 6	F4	10 x 2mm
Kiosk 6	F5	10 x 2mm
Kiosk 7	G1	16mm² 3 CORE
Kiosk 7	G2	16mm² 3 CORE
Kiosk 7	G3	16mm² 3 CORE
Kiosk 7	G4	16mm² 3 CORE
Kiosk 7	G5	6mm² 3 CORE
Kiosk 7	G6	6mm² 3 CORE
Kiosk 7	G7	16mm² 3 CORE
Light A1	Light A12	6mm² 3 CORE
Light A12	Light A18	6mm² 4 CORE
Light A12	Traffic Light	6mm² 4 CORE
Light C1	Light C16	6mm² 3 CORE
Light P1	Light P10	6mm² 3 CORE
Light S1	Light S5	6mm² 3 CORE



No	DATE	AMENDMENT	D.F.W.

Copyright vests in the Department of Public Works

as-built drawings

certified as-built drawings as per Contractual Drawing Archive AS-BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

cad file name EE10717/00 paper size A 3

public works
Department: Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM MJIKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline ELECTRICAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: ELECTRICAL POWER AND EQUIPMENT: AREA A

ref no. n.a.

designed J. H. MÖLLER

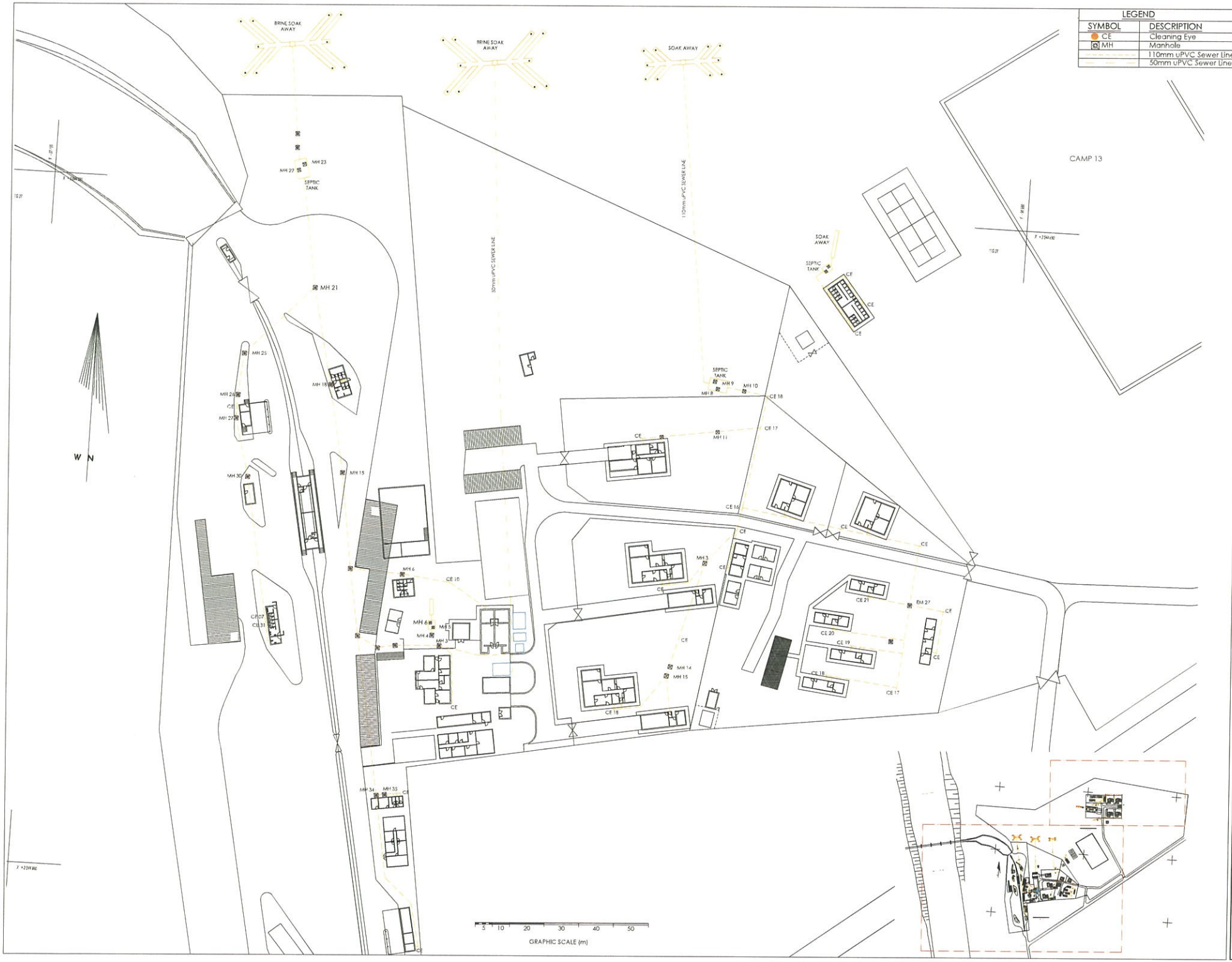
scale 1:750

drawn J. CAMPHER

date 08 FEBRUARY 2019

checked J. H. MÖLLER

CPW drawing number
EE10717/00



LEGEND	
SYMBOL	DESCRIPTION
CE	Cleaning Eye
MH	Manhole
	110mm uPVC Sewer Line
	50mm uPVC Sewer Line

No.	DATE	AMENDMENT	D.P.W.

Copyright vests in the Department of Public Works.

As-built drawings

Certified as-built drawings as per Certificated Drawing Archive ADJBLS (TRAINING REQUIREMENT)

name J. H. MÖLLER
date 08 FEBRUARY 2019
professional registration no 20100124

cad file name C5851/04 drawing size A 3

public works
Department: Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant
PROFTEAM
Professional Project Management and Engineering Services

discipline CIVIL AND STRUCTURAL ENGINEERING
service

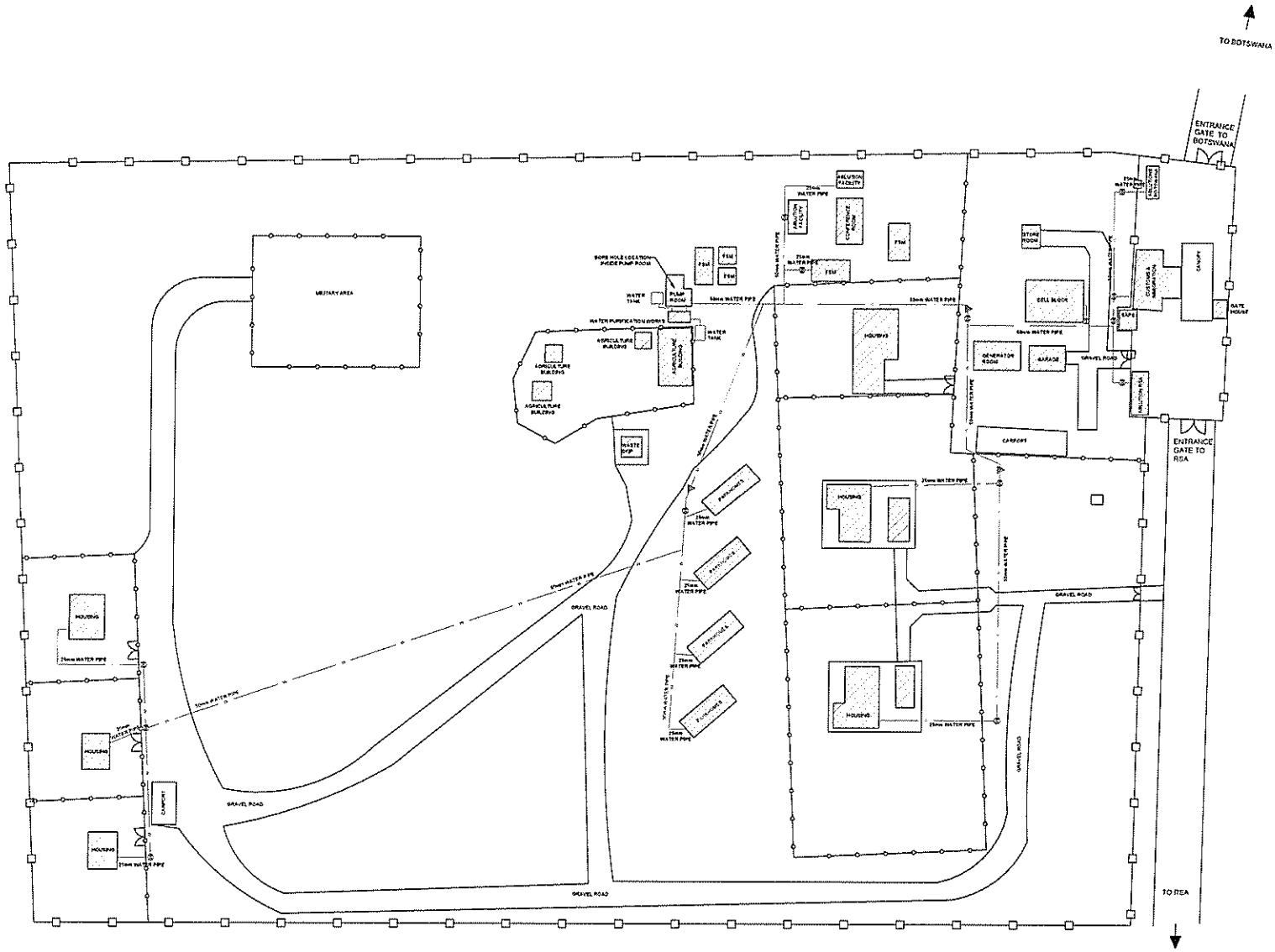
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
GROBLERSBRIDGE PORT OF ENTRY: SITE LAYOUT PLAN: SEWER NETWORK: AREA A

ref no --
designed J. H. MÖLLER
scale 1:500
drawn J. CAMPHER
date 08 FEBRUARY 2019
checked J. H. MÖLLER

DPW drawing number
C5851/04



J.H. MOLLER
DR FEBRUARY 2019

C5851/08 — A3

public works
DIRECTOR GENERAL

PROFTEAM
Professional Project Management and Engineering Services

CIVIL AND STRUCTURAL ENGINEERING

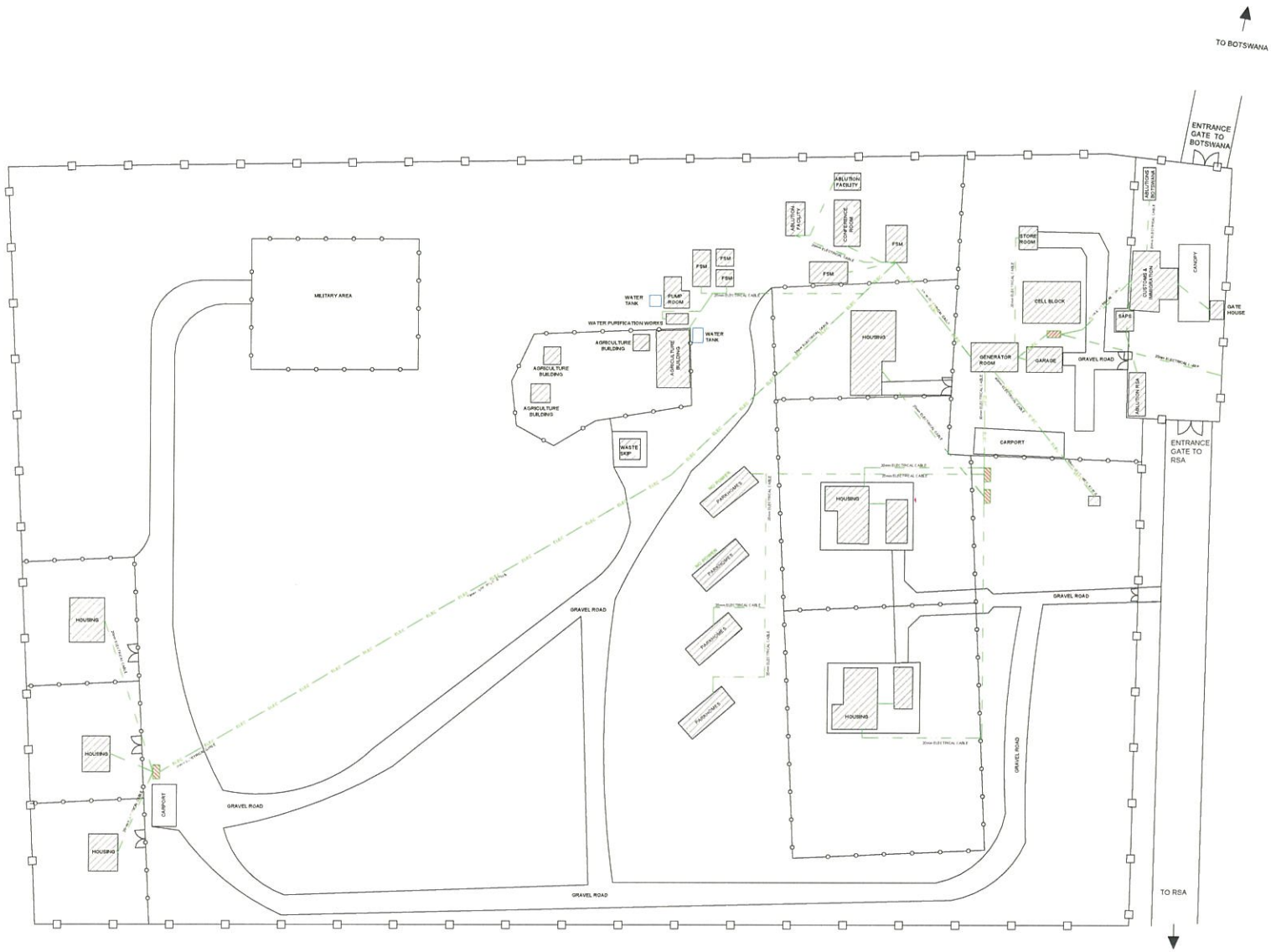
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS 052734

STOCKPOORT PORT OF ENTRY WATER RETICULATION SITE LAYOUT PLAN

Designed: J.H. MOLLER
Drawn: J. CAMPHER
Checked: J.H. MOLLER
DR FEBRUARY 2019

C5851/08



LEGEND

ELECTRICITY	
ELEC	ELECTRICAL CABLE (SIZE AS INDICATED)
	20mm ELECTRICAL CABLE
	KIOSK / ELECTRIC BOX

No	DATE	AMENDMENT	D P W

Copyright vests in the Department of Public Works

as built drawings

(where as built drawings as per Technical Theory where RESULT DRAWINGS REQUIREMENTS)

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no. 20100124

cad file name EE10717/02

page size A 3

public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM MOKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline
ELECTRICAL ENGINEERING

service

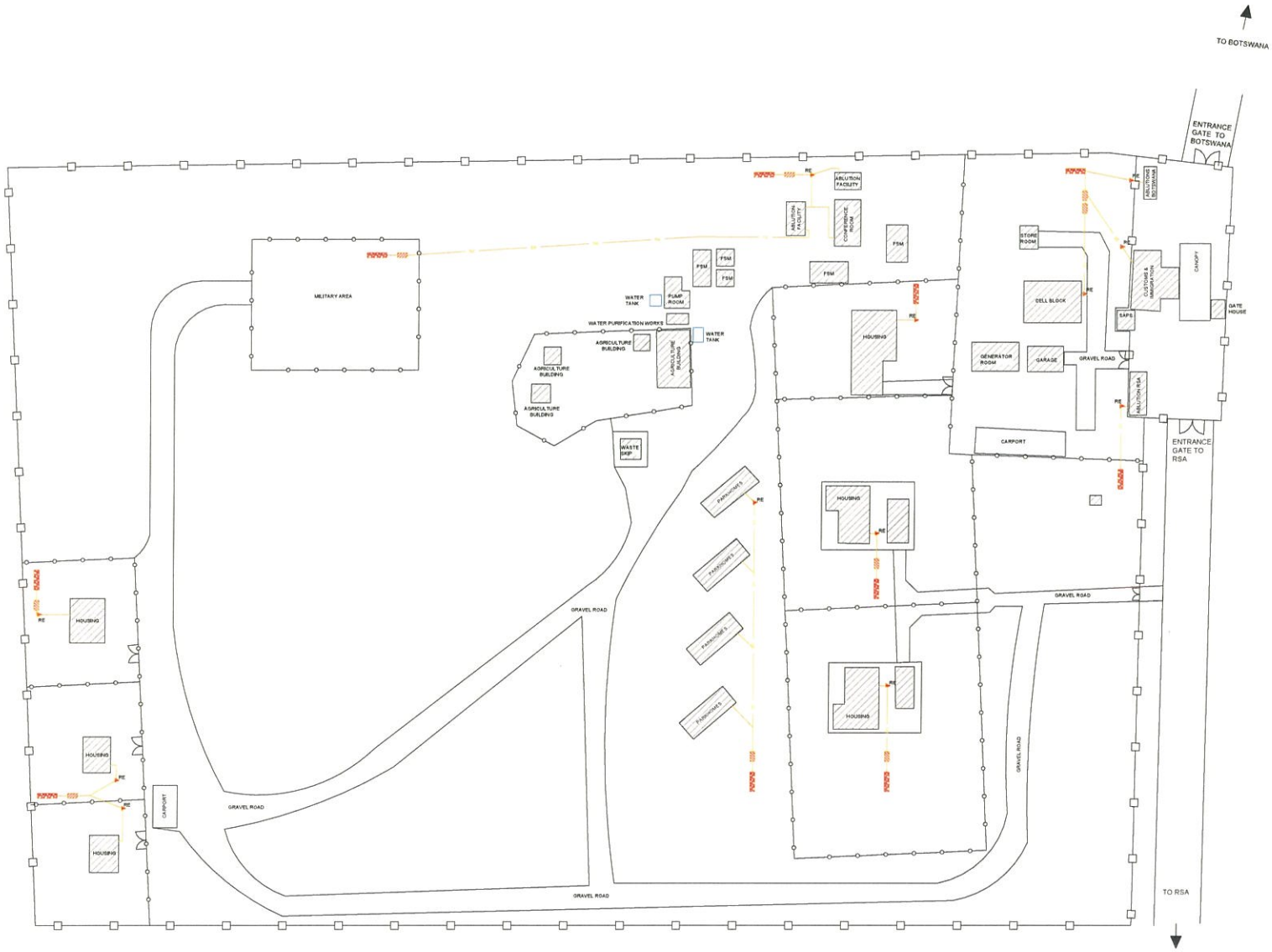
GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title
STOCKPOORT PORT OF ENTRY: ELECTRICAL NETWORK SITE LAYOUT PLAN

ref no. –	designed J. H. MÖLLER
scale 1: 750	drawn J. CAMPHER
date 08 FEBRUARY 2019	checked J. H. MÖLLER

CAD/A drawing number EE10717/02



LEGEND

SEWER	
SE	110mm Ø PVC SEWER LINES
	SEPTIC TANK
RE	RODDING EYE
MH	MANHOLE
	FRENCH DRAIN

No	DATE	AMENDMENT	D P W

Copyright vests in the Department of Public Works

as-built drawings

verified as-built drawings as per Construction Drawing Archive A1 AS-BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no 20100124

cad file name C5851/09 page size A 3

public works
Department: Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM UKWELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline CIVIL AND STRUCTURAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number WCS 052734

drawing title

STOCKPOORT PORT OF ENTRY: SEWER NETWORK SITE LAYOUT PLAN

ref no. —	designed J. H. MÖLLER
scale 1:750	drawn J. CAMPHER
date 08 FEBRUARY 2019	checked J. H. MÖLLER

CPW's drawing number C5851/09



LEGEND	
EXIT	EXIT SIGN
	ASSEMBLY POINT
	9kg STP
	5kg CO^2
	HOSE REEL
	HYDRANT

No.	DATE	AMENDMENT	D.P.W

Copyright vests in the Department of Public Works

as built drawings

certified as built drawings as per Contractual Clause(s) Annex A AS BUILT DRAWING REQUIREMENTS

name J. H. MÖLLER

date 08 FEBRUARY 2019

professional registration no. 20100124

cad file name: ME304106/02

page size: A 3

public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

DIRECTOR-GENERAL
Adv SAM VUKELA

consultant

PROFTEAM
Professional Project Management and Engineering Services

discipline: MECHANICAL ENGINEERING

service

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY: 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS number: WCS 052734

drawing title:

STOCKPOORT PORT OF ENTRY: FIRE FIGHTING LAYOUT PLAN

ref no: --

designed: J. H. MÖLLER

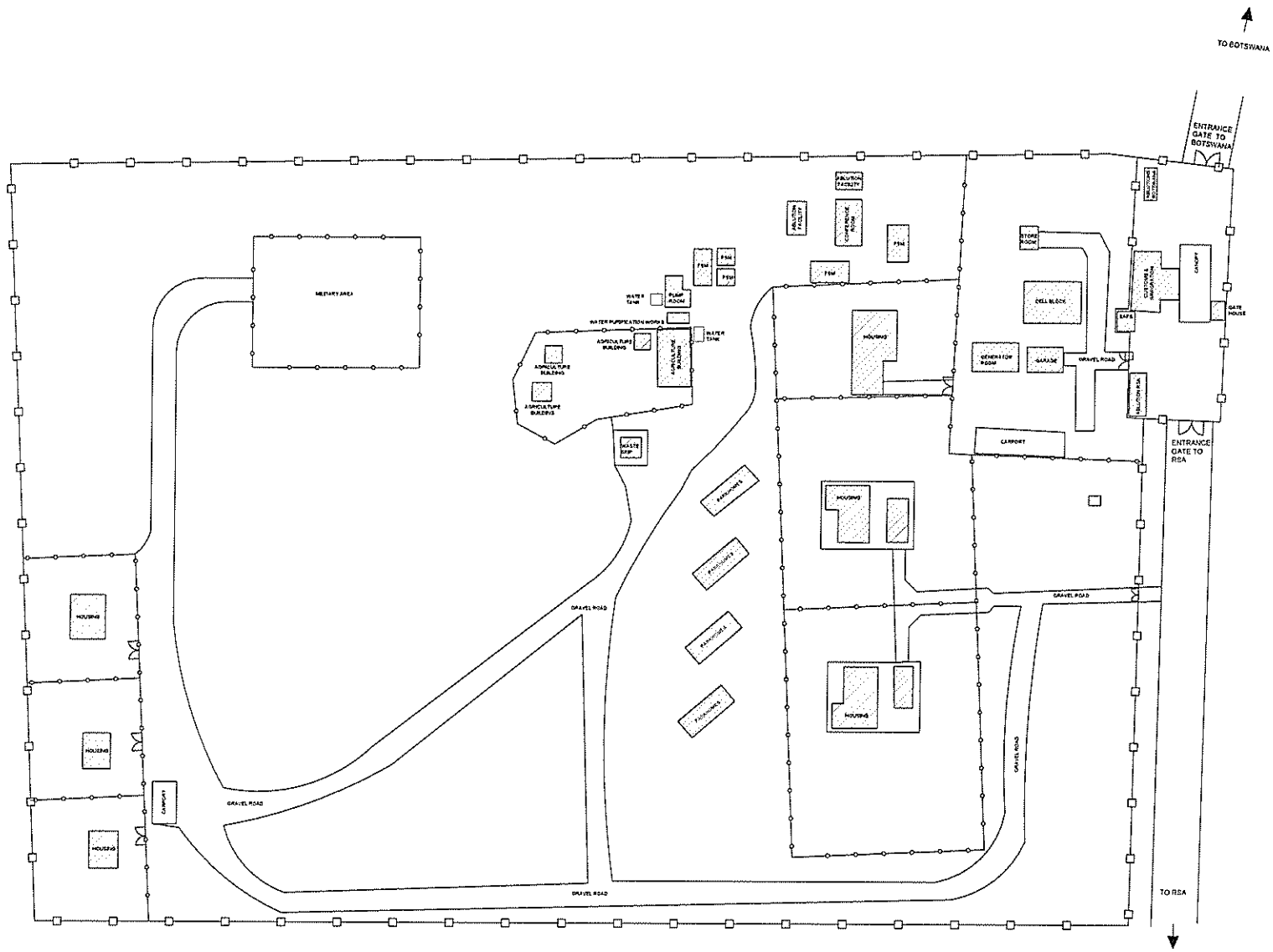
scale: 1:750

drawn: J. CAMPHER

date: 08 FEBRUARY 2019

checked: J. H. MÖLLER

DPW drawing number: ME304106/02



No.	DATE	AMENDMENT	C.H.K.

J.H. MOLLER
08 FEBRUARY 2019

C5851/07 A3

public works
DIRECTOR-GENERAL

PROFTEAM
Professional Project Management and Engineering Services

CIVIL AND STRUCTURAL ENGINEERING

GROBLERSBRIDGE AND STOCKPOORT PORTS OF ENTRY. 36 MONTHS REPAIR, MAINTENANCE AND SERVICING OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS

WCS 052734

STOCKPOORT PORT OF ENTRY
SITE LAYOUT PLAN

DRAWN	J.H. MOLLER
SCALE	1:750
CHECKED	J. CAMPHER
DATE	08 FEBRUARY 2019
APPROVED	J.H. MOLLER

C5851/07