

VICTOR KHANYE LOCAL MUNICIPALITY



A CIDB DOCUMENT

6CE OR HIGHER

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER
RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN
SUNDRA & ELOFF**

TENDER NO: T/RW07/WSIG/P2/2024/2025

CLOSING DATE: 17 OCTOBER 2024

TIME: 10:00AM

Issued by:

Victor Khanye Local Municipality

Corner Van Der Walt Street and Samuel Road

Delmas

2210

South Africa

Contact: Jabulani Buthelezi

Telephone: 081 036 7539

e-mail: jabulanib@vklm.gov.za

NAME OF TENDERER: _____

CSD No.: _____

CIDB No.: _____

NO BID WILL BE ACCEPTED FROM A PERSON IN THE SERVICE OF THE STATE

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

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Contractor

Witness 1

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Employer

Witness 1

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VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025 PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

T1.1 PROJECT NOTICE

Victor Khanye Local Municipality invites suitable service providers to submit the bid for the services listed hereunder:

VICTOR KHANYE

LOCAL MUNICIPALITY - PLANNING FOR PROGRESS AND DEVELOPMENT

MUNICIPAL OFFICES • PO Box 6 • DELMAS • 2210

Victor Khanye Local Municipality invites Suitable service providers to submit proposals on the goods and for services listed hereunder:

DEPARTMENT	BID NUMBER	NON-REFUNDABLE BID DOCUMENT PRICE	DESCRIPTION OF GOODS/SERVICES	COMPULSORY BRIEFING SESSION	EVALUATION CRITERIA	CLOSING DATE	ENQUIRIES
Technical Services	T/RW07/WSIG/P2/2024/2025	R1081.00	Provision of civil engineering and construction of water related infrastructure in reduction of non-revenue water (NRW) reduction in Victor Khanye Local Municipality, Sundra and Eloff	17 September 2024 Time: 10:00 -13:00 Venue: Braamfischer Hall	Functionality 80/20 80= Price 20=targeted goals Grade CCE/Higher	17 October 2024 10:am	Mr James Nzeru 084 248 1691 James@tloconsult.co.za Jabulani Buthelezi 0810367539
Budget & Treasury	T/B&T/01/09/2024/2025	R1081.00	Appointment of a panel of three service provider's for the supply and delivery of water and sanitation consumables and spare parts, as and when basis for a period of 36 months	N/A	Functionality 80/20 80= Price 20= targeted goals	17 October 2024 10:am	Mr D Madinane 082 449 8488
Budget & Treasury	T/B&T/02/09/2024/2025	R1081.00	Appointment of a panel of three service provider's for the supply and delivery of electrical consumables and spare parts on as and when basis for the period of 36 months.	N/A	Functionality 80/20 80= Price 20= targeted goals	17 October 2024 10:am	Mr D Madinane 082 449 8488
Technical Service	T/TECH/01/09/2024/2025	R1081.00	Appointment of a panel of three (3) service providers for the repairs and maintenance of electrical motors, electrical panel pumps, and associated equipment on as and when basis. For the period of 36 months.	N/A	Functionality 80/20 80= Price 20= targeted goals	17 October 2024 10:am	Mr D Modimogale 072 723 6037
Technical Service	T/TECH/02/09/2024/2025	R1081.00	Procurement of a service provider for supply and delivery of vehicle spare parts for the period of 36 Months.	N/A	Functionality 80/20 80= Price 20= targeted goals	17 October 2024 10:am	Miss C Mhlangu 083 795 0357
NON-REFUNDABLE BID DOCUMENT PRICE: R1081.00				EVALUATION CRITERIA: 80/20 • 80=PRICE 20=targeted goals			
CLOSING DATE: 17 October 2024 TIME: 10:00 am							

Compulsory site clarification meeting for the project will be held as per the schedule outlined in the table above. The briefing will take place on the 17 September 2024 as per the stipulated time in the table above. This will be then followed by a non-compulsory site visit with the prospective bidders on a date to be confirmed during the scheduled briefing session.

Tender documents will be available on 13th September 2024.

Preferential Procurement Policy Framework Act, No. 5 of 2000 and as defined in the bid document, read in conjunction with the Preferential Procurement Regulation, 2022 and Supply Chain Management Policy of Victor Khanye Local Municipality will apply in the adjudication process. The evaluation of the acceptable proposals will be conducted in the following two stages: A system that awards points based on 80 points for proposal price and 20 points in respect of targeted goals.

Price should be VAT inclusive. A valid Tax Clearance Certificate, identification copy or company registration certificate, MBD1; MBD2; MBD4; MBD6,1; MBD6,16,2, MBD6,16,3, MBD8 & MBD9 and current municipal account/lease agreement must be attached. Failure to attach the requested documents will result in a bid being non-responsive.

T1.1.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Tenders duly, endorsed with the project number and description, must be placed in the tender box on or before 17 OCTOBER 2024 at 10:00 am at the Municipal Offices, Samuel Road, Delmas or could be posted to the undermentioned address to be received before the closing date and more information can be obtained from the contact person as specified above. **TENDERS WILL BE EVALUATED ACCORDING TO THE STIPULATED MINIMUM REQUIREMENTS**

Collection of tender documents: Tender documents can be downloaded on the **E-Tender pot (www.etender.gov.za)** or can be obtained on payment of a **non-refundable fee as specified** and can be collected at the SCM Unit, Room 33 Municipal Offices, Delmas, 013 665 6000 between 07:30-16:30 Monday to Thursday and 7:30-13:30 Friday **excluding weekend and public holidays**.

Tenders received after the closing date and time, faxed, completed with a pencil or e-mailed will not be considered.

The Council reserves the right to accept any tender or part thereof and does not bind itself to accept the lowest or any tender and not to consider any tender not suitably endorsed or comprehensively completed. Tenders completed in pencil will be regarded as invalid tenders. Tenders should be valid for a period of not less than ninety (90) days. Appraisal of submissions will be done according to the Council's Procurement Policy. Council reserves the right not to appoint. **Suppliers must be registered on CSD.**

If you do not hear from us within 90 days of the closing date, please consider your tender unsuccessful.

Enquiries related to this tender should be addressed to Mr DS Mahlangu (SCMU) at Tel. (013) 665-6000 during office hours.

TM Mashabela
Municipal Manager

Municipal Offices,
PO Box 6, Delmas, 2210

T1.1.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (Feb 2008) as published in Government Gazette No: 30692, Board Notice 9 of 2008 of 1 February 2008. (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 in the Standard Conditions of Tender to which it mainly applies.

Clause Number	
F.1.1	The Employer is: Victor Khanye Local Municipality P.O. Box 6 Delmas Mpumalanga 2210

T1.2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.1.2	The Tender documents issued by the Employer comprise the following documents: THE TENDER Part T1: Tendering Procedures T1.1 Project Notice T1.2 Tender Data Part T2: Returnable Documents T2.1 List of Returnable documents T2.2 Returnable schedules THE CONTRACT Part C1: Agreements and Contract Data C1.1 Form of offer and acceptance	
F.1.2	C1.2 Contract Data C1.3 Performance guarantee Part C2: Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantities Part C3: Scope of Work C3 Scope of Work Part C4: Site Information C4 Site Information Part C5: Relevant Documentation Health and Safety Specifications Pro-forma agreement in terms of Occupational Health and Safety Act Notification of construction work Pro-forma contract between contractor and worker Pro-forma attendance register Contract person days calculation format Contractor's monthly report format	
F1.3	Interpretation The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these tender conditions.	
F.1.4	The Employer's Agent is:	
	Tlou Consulting (Pty) Ltd Tel: 012 336 9800	121 Boshoff Street Nieuw Muckleneuck Pretoria 0181
F.1.5	The Employer's right to accept or reject any tender offer. The employer has the right not to accept the lowest tender and to accept the whole or part of any tender or not to consider any tender not suitably endorsed is fully reserved by Victor Khanye Local Municipality.	
F.2.2	Compensation of tendering Accept that the Employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.	

T1.2.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.2.3	Check documents. Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
F.2.4	Confidentiality and copyright Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.
F.2.5	Reference documents Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.
F2.6	Acknowledge Addenda Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension of the closing time stated in the tender data, to take the addenda into account.
F.2.7	Site briefing meeting A compulsory virtual briefing session will be held on: Date: 17th September 2024 Time: 10am – 13:00pm Location: Braamfischer Hall, Delmas
F.2.11	Alterations to documents Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluids are prohibited.

T1.2.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F2.13	Submitting tender offer: No Tender document will be considered unless submitted on Council's Official Tender Document. Return all the returnable documents to the employer after completing them. Tenders must be deposited in the tender box clearly marked with project description. Tender No: T/RW07/WSIG/P2/2024/2025 - PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF Location of Tender Box: Victor Khanye Local Municipality Corner Van Der Walt and Samuel Road Delmas 2210 Telephonic, telegraphic, telex, facsimile or emailed tenders will not be considered. All tender received by the Victor Khanye Local Municipality will remain in the Municipality's possession until after the stipulated closing date and time. Accept that a tender submitted to the employer cannot be withdrawn or substituted late. No substitute tenders will be considered
F.2.16	The Tender offer validity period is 90 Days.
F.2.18	The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labor-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
F2.20	The tenderer is required to submit a Performance Guarantee from an approved insurer within 14 days from appointment. A format is included in Part C1.3 of this document. The tenderer is to submit to the employer before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

T1.2.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.3.11

Tender evaluation points

The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 system shall be applicable.

Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) Targeted Goals

The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
Targeted Goals	20
Total points for Price and Targeted Goals must not exceed	100

Evaluation of Tenders

The Tenderers notice is drawn to the fact that the evaluation, adjudication and awarding of this tender will be in terms of the Supply Chain Management Policy of the Victor Khanye Local Municipality.

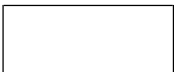
The following steps will be followed in evaluation:

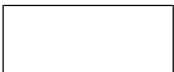
1. Determination of whether tender offers are complete.
2. Determination of whether tender offers are responsive.
3. Determination of the reasonableness of tender offers.
4. Confirmation of the eligibility of preferential points claimed by tenderers.
5. Determination of expertise and experience of tenderers.
6. Awarding of points for financial offer.
7. Ranking of tenderers according to the total points
8. Performance of risk analysis by checking the credit record of the tenderers.

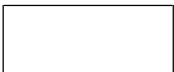
Evaluation Criteria

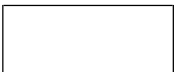
Tenders are adjudicated in terms of Victor Khanye Local Municipality Supply Chain Management Policy, and the following framework is provided as a guideline in this regard.

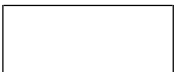
T1.2.5

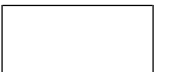

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

	Size of enterprise and current workload ▪ Evaluation of the Tenderer's position in terms of: ▪ Previous and expected current annual turnover. ▪ Current contractual obligations ▪ Capacity to execute the contract. Staffing profile Evaluation of the Tenderer's position in terms of: ▪ Staff available for this contract being Tendered for ▪ Qualifications and experience of key staff to be utilised on this contract. Proposed Key Personnel In this part of the tender, the Tenderer shall also supply Curriculum Vitae (CV's) for the Staff available named and working on full time basis for the Tenderer. The CV should follow the normal Professional Format. Each CV should give at least the following: • Position in the firm and within the Organisation of this assignment • PDI status (describing population group, gender and disabilities) • Educational qualifications • Professional Registrations • Relevant experience (actual duties performed, involvement and responsibility), including locations, dates and durations of assignments, starting with the latest. • Language proficiency and • References (company name, individual name, position held, contact details) Much importance will be placed on the experience of the staff proposed. The Tender must ensure that, if selected, the nominated staff will be assigned as proposed. Failure to do so may result in the annulment of any acceptance of the Tenders' proposal and/or Agreement entered into by the Client for the execution of the services. Previous experience The procedure for the evaluation of responsive Bids will be on the previous projects where the firm was involved for Victor Khanye Local Municipality (VKLM) projects or other clients. Reference of clients other than VKLM MUST be provided. The tenderer shall list in the appropriate Forms the appropriate related projects undertaken by the member firms of the tenderer within the last ten (10) years. Evaluation of the Tenderer's position in terms of his previous experience. Emphasis will be placed on the following: • Experience in the relevant technical field • Experience of contracts of similar size • Some or all the references will be contacted to obtain their input. The tenderer shall provide documentation of company experience of each member of the Consortium/Joint Venture related projects
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T1.2.6

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

	If the Tender does not meet the requirements contained in the VKLM Procurement Policy, and the mentioned framework, it will be rejected by the Council, and may not subsequently be made acceptable by correction or withdrawal of the non-conforming deviation or reservation. Penalties The VKLM will if upon investigation it is found that a preference in terms of the Act and these regulations has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Municipal Manager, one or more of the following penalties will be imposed: • Cancel the contract and recover all losses or damages incurred or sustained from the Tenderer. • Impose a financial penalty at the discretion of Council. Restrict the contractor, its shareholders, and directors on obtaining any business from the VKLM for a period of 5 years
F.3.11.5	Evaluation Method 4 Which entails the balance between financial offer, preferences and Quality and 80-20 points system, will be adopted.
F.3.18	The number of paper copies of the signed contract to be provided by the Employer is one.
	The additional conditions of Tender are: 1 VKLM may also request that the Tenderer provide written evidence that his financial, labour and resources are adequate for carrying out the project. 2 The VKLM reserves the right to appoint a firm of chartered accountants and auditors and / or execute any other financial investigations on the financial resources of any Tenderer. The Tenderer shall provide all reasonable assistance in such investigations.
	The tenderer is to note that the following Additional Relevant Documents attached into Part five (5) of this document will form part of this contract: (i) Health and Safety Specifications (ii) Pro-forma agreement in terms of Occupational Health and Safety Act (iii) Notification of construction work (iv) Pro-forma contract between contractor and worker (v) Pro-forma attendance register (vi) Contract person days calculation format (vii) Contractor's monthly report format

T1.2.7

Contractor

Witness 1

Witness 2

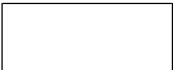
Employer

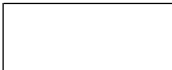
Witness 1

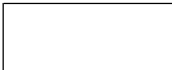
Witness 2

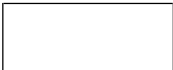
F.3.11.6	Evaluation Criteria The evaluation procedure consists of three phases: Phase 1: Tenders will be evaluated for responsiveness to the tender requirements, tenderers who do not comply will be considered to be non-responsive and disqualified. Phase 2: Tenderers will be evaluated for functionality, tenderers who did not meet the minimum requirements will be considered to be non-responsive and eliminated. And Phase 3: Tenderers will be evaluated based on financial proposals and preference. Tenderers with the highest points scored will be appointed. The Construction Firm's tender responsiveness in relation to points is therefore summarized as follows: <table><tr><td>Organising and Staffing</td><td>40</td></tr><tr><td>Plant</td><td>25</td></tr><tr><td>Experience of Firm</td><td>35</td></tr><tr><td>Sub-Total</td><td>100</td></tr></table>	Organising and Staffing	40	Plant	25	Experience of Firm	35	Sub-Total	100
Organising and Staffing	40								
Plant	25								
Experience of Firm	35								
Sub-Total	100								

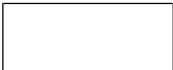
T1.2.8

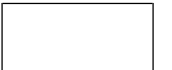

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

Organising and Staffing (Maximum points obtainable 40, minimum 25)**Project Manager / Team Leader:**

Attach certified copies of the qualifications

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable	Minimum Threshold	Points Claimed	Site
Academic Qualifications	B. Tech/BSc in Civil Engineering or equivalent	No	10	6		
Academic Qualifications	Diploma in Civil Engineering/Project Management or equivalent	No	6			
	No submission or submission below minimum below	Yes	0			
Sub-total			10			
Experience of Project Manager/Team Leader in similar projects		Elimination Factor				
Involvement in comparable projects (Technical)	0 - 1	Yes	0	2		
	1 - 2	No	2			
	3 - 4	No	3			
	5 upwards	No	5			
Sub-total			5			
Total			15	8		

Agent:(Maximum Points obtainable 10, minimum 7)**Name:**

Attach certified copies of the qualifications

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable	Minimum Threshold	Points Claimed
Academic Qualifications	National Diploma in civil works or equivalent	No	5	5	
Academic Qualifications	No formal Education in Construction	Yes	0		
Sub-total			5		
Years of experience in similar projects	0 - 1	Yes	0	2	
	1 - 3	No	2		
	4 and above	No	5		
Sub-total			5		
Total			10	7	

Note: Should the Site Agent be the same as Project Manager/Team Leader zero points will be allocated.

T1.2.9

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Site Foreman:(Maximum Points obtainable 5; minimum 4)**Name:**

Attach certified copies of the qualifications

Evaluation Criteria	Minimum Required	Points obtainable	Minimum Threshold	Points Claimed
Academic Qualifications	N6 in Civil or equivalent	3	3	
Academic Qualifications	No submission or submission below minimum below	0		
Sub-total		3		
Years of experience after qualification	0-1	0	1	
	1 – 3	1		
	4 upwards	2		
Sub-total		2		
Total		5	4	

Note: Should the Site Foremen be the same as Site Agent and Team leader zero points will be allocated**Safety Officer: (Maximum Points obtainable 10; minimum 6)****Name:**

Attach certified copies of the qualifications

Evaluation Criteria	Minimum Required	Points obtainable	Minimum Threshold	Points Claimed
Academic Qualifications	Occupational Health and Safety Certificate or equivalent (SAMTRAC/SACPCMP)	5	5	
Sub-total		5		
Years of experience after qualification	0-1	1	1	
	1-3	3		
	4 upwards	5		
Sub-total		5		
Total		10	6	

Note: Should the Safety Officer be the same as Team leader, Site Agent, Site Foreman zero points will be allocated.

T1.2.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ORGANISING AND STAFFING/PERSONNEL		
PERSONNEL	TOTAL	SCORES
Project Manager/Team Leader	15	
Site Agent	10	
Site Foreman	5	
Health and Safety Officer	10	
TOTAL	40	

PLANT (Maximum Points obtainable 30)

It must be noted that total points of **25** are obtainable by the Construction Firm in relation to the requirements as mentioned on the table below, failure to submit evidential supporting documents is not an eliminating factor **BUT** a zero point will be scored. Proof of ownership/Lease agreement with proof of ownership from Lessor or Lease Agreement must be attached.

Evaluation Criteria	Minimum Required	Points obtainable (Own/Lease Agreement with Proof of Ownership of Lessor)	Lease Agreement without Proof of Ownership of Lessor	Minimum Threshold	Points Claimed
Firm's plant and equipment – Note: Proof of ownership the firm's equipment or Rental Agreement with proof of Ownership by Lessor or Proof of Lease Agreement must be attached and failure to do so will result in forfeiting the plant points.	Firm's number of Excavator x 1	10	5		
	Firm's number of TLBs x 1	7.5	5		
	Firm's number of Tipper Truck x 2	7.5	5		
Sub-total		25	15	15	
Total		25	15	15	

EXPERIENCE OF FIRM (Maximum Points obtainable 35; minimum 15)**Note: Company's previous completed projects**

It must be noted that the experience of the firm carries a maximum of **35 points** as indicated in the table below. If proof of testimonials and appointment letters, in reference to Form F is not provided, then the bidder shall obtain zero points on the experience of the firm.

Provide proof of the company's previously completed projects which is in the form appointment letters and completion certificates. Verifiable references (appointment letters and completion certificates) with contact details must be attached.

T1.2.11

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Evaluation Criteria	Evaluation Criteria	Points obtainable	Minimum Threshold	Points Claimed
Company experience in terms of projects of a similar scope completed.	No information provided	0	15	
	1 Project of similar scope	5		
	2 Projects of similar scope	10		
	3 Projects of similar scope	15		
	4 Projects of similar scope	25		
	5 Projects upwards of similar scope	35		
Sub-Total		35	15	
TOTAL		35	15	

TOTAL SCORE: _____/100

A bidder who scores less than the minimum threshold in any of the evaluation aspect will be disqualified. A bidder who scores the minimum number of **70** points out of a maximum of **100** for functionality will qualify to be evaluated in terms of the **80/20** preference point system.

T1.2.12

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART 4. PRICING DATA:

DESCRIPTION	POINTS
PRICE	80
Targeted Goals	20
Total points for price and Targeted Goals must not exceed	100

T1.2.13

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tenderer must complete the following returnable Schedules:
Returnable Schedules required for Tender evaluation purposes.

Form A	Compulsory Enterprise Questionnaire
Form B	Record of Addenda to Tender Documents
Form C	Authority for Signatory
Form D	Preference Schedule
Form E	Schedule of Previous Experience
Form F	Schedule of Current Projects
Form G	Certificate of Attendance at Site Meeting
Form H	Proposed Key Personnel
Form I	Schedule of Plant and Equipment
Form J	Schedule of Proposed Sub-Contractors
Form K	Financial References
Form L	Certificate of Authority of Joint Ventures/ Close corporation/ Partnership/ Company/ Sole proprietor
Form M	Certificate of Registration with CIBD of 6CE or higher
Form N	Registration on National Treasury Central Supplier
Form O	Municipal Utility Account
Form P	Proposed Amendments and Qualifications
Form Q	Program and Methodology
Form R	Quality Assurance Plan
Form S	Professional registration with ECSA for one key personnel

MBD1	Invitation to bid
MBD2	Tax compliance requirements
MBD4	Declaration of Interest
MBD6.2	Local Content in terms of PPR 2017
MBD8	Declaration of bidder's past supply chain management practices
MBD9	Certificate of Independent bid determination

Returnable Documents that will be incorporated into the contract.

C1.1	Form of Offer and Acceptance
C1.2	Contract Data (Part 2)
C1.3	Form of Guarantee
C2.2	Bill of Quantities

T2.1.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

T2.2 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

T2.2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM A COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

.....

Section 2: VAT registration number, if any:

.....

Section 3: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal Income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 4: Particulars of companies and close corporations

Company registration number

.....

Close corporation number

.....

Tax reference number

.....

Section 5: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

☐	A member of any municipal council	☐	An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
☐	A member of any provincial legislation	☐	A member of an accounting authority of any national or provincial public entity
☐	A member of the National Assembly or the National Council of Province	☐	An employee of Parliament or a provincial legislature

T2.2.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	A member of the board of directors of any municipal entity		An official of any municipality or municipal entity
--	--	--	---

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service	
		Current	Within last 12 months

T2.2.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Section 6: Records of spouses, children and parents in the service of the state

Indicate by making the relevant boxes with a cross, if any spouses, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

	A member of any municipal council		An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management act, 1999 (act 1 of 1999)
	A member of any provincial legislature		A member of an accounting authority of any national or provincial public entity
	A member of the National Assembly or the National Council of Province.		An employee of Parliament or a provincial legislature
	A member of the board of directors of any municipal entity		An official of any municipality or municipal entity

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

* insert separate page if necessary

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

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004.
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed: _____

Date: _____

Name: _____

Position: _____

Enterprise: _____

Name: _____

T2.2.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ATTACH THE FOLLOWING DOCUMENTS HERETO

- 1. For Closed Corporations

 CK1 or CK2 as applicable (Founding Statement)

- 2. For Companies

 Shareholder register

- 3. For Joint Venture Agreements

 Copy of the Joint Venture Agreement between all the parties, as well as the documents in (1) or (2) of each Joint Venture member.

- 4. Audited Financial Statements for the past three (3) years.

- 5. CSD Audit Report

T2.2.5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM B RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communications received from the Victor Khanye Local Municipality 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

I / We confirm that no communications were received from the Victor Khanye Local Municipality before the submission of this tender offer, amending the tender documents.

Name of Tenderer	Signature	Date

T2.2.6

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

FORM C AUTHORITY OF SIGNATORY

Details of person responsible for tender process:

Name:

Contact number:

Office address:

Signatories for close corporations and companies shall confirm their authority by attaching to this form a **duly signed and dated original or certified copy on the Company Letterhead** of the relevant resolution of their members or their board of directors, as the case may be.

PRO-FORMA FOR COMPANIES AND CLOSE CORPORATIONS:

"By resolution of the board of directors passed on (date)"

Mr/Ms

has been duly authorized to sign all documents in connection with the Tender for Contract Number and any Contract which may arise there from on behalf of

(BLOCK CAPITALS)

SIGNED ON BEHALF OF THE COMPANY

IN HIS CAPACITY AS

DATE
:

FULL NAMES OF SIGNATORY

AS WITNESSES: 1.

2.

T2.2.7

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PRO-FORMA FOR JOINT VENTURES:

Certificate of Authority for Joint Ventures

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms , authorized signatory of the company , acting in the capacity of lead partner, to sign all documents in connection with the tender offer an any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORIZED SIGNATORY
Lead Partner: CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:

ATTACH HERETO THE DULY SIGNED AND DATED ORIGINAL OR CERTIFIED COPY OF AUTHORITY OF SIGNATORY ON COMPANY LETTERHEAD

T2.2.8

ContractorWitness 1Witness 2EmployerWitness 1Witness 2

FORM D TARGETED GOALS

Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

3. POINTS AWARDED FOR SPECIFIC GOALS

- 3.1. 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 below as may be supported by proof/documentation stated in the conditions of this tender:
- 3.2. 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 1: 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 tender shall be evaluated on a 80/20 preferential points system, where 80 points will be allocated in respect of price and 20 points in respect of targeted goals.

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS			
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS	Number of points claimed (80/20 system) (To be completed by the tenderer)
100% black person or people owned enterprise	6	A copy of a Full CSD report not older than 3 months	

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY WOMEN OR MEN			
WOMEN OR MEN	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS	Number of points claimed (80/20 system) (To be completed by the tenderer)
More than 30% women owned enterprise	6	A copy of a Full CSD report not older than 3 months	
Men only owned enterprise	5		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.2 Returnable Documents

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY PEOPLE WITH DISABILITY			
PEOPLE WITH DISABILITY	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS	Number of points claimed (80/20 system) (To be completed by the tenderer)
More than 30% people living with disability shareholding or owned enterprise	6	A copy of a Medical Certificate to confirm disability	

POINTS FOR IMPLEMENTING RDP PROGRAMMES			
YOUTH	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS	Number of points claimed (80/20 system) (To be completed by the tenderer)
100% YOUTH OWNED ENTERPRISE PERSONS WHO ARE AGE 35 YEARS AND LESS	2	A COPY OF A FULL CSD REPORT NOT OLDER THAN 3 MONTHS.	
TOTAL PREFERENCE POINTS TO BE CLAIMED	20		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION WITH REGARD TO COMPANY/FIRM

3.3. Name of company/firm.....

3.4. Company registration number:

3.5. 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

EVALUATION CRITERIA

The tender shall be evaluated on an 80/20 preferential points system, where 80 points will be allocated in respect of price and 20 points in respect of targeted goals.

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS		
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
100% black person or people owned enterprise	6	A copy of a Full CSD report not older than 3 months

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY WOMEN OR MEN		
WOMEN OR MEN	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
More than 30% women owned enterprise	6	A copy of a Full CSD report not older than 3 months
Men only owned enterprise	5	

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY PEOPLE WITH DISABILITY		
PEOPLE WITH DISABILITY	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
More than 30% people living with disability shareholding or owned enterprise	6	A copy of a Medical Certificate to confirm disability

POINTS FOR IMPLEMENTING RDP PROGRAMMES		
RDP	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
Corporate Social Investment (CSI)	2	Local / Social Labour plan proposition
TOTAL PREFERENCE POINTS TO BE CLAIMED	20	

T2.2.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM E SCHEDULE OF PREVIOUS EXPERIENCE

Current projects:

Project	Employer	Reference / Contact person	Contact Tel. No.	Contract amount	Contract period	Date commencement	Scheduled date of completion
1							
2							
3							
4							
5							

Name of Tenderer	Signature	Date

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM F SCHEDULE OF CURRENT PROJECTS

Current projects:

Project		Employer	Reference/ Contact person	Contact Tel. No.	Contract amount	Contract period	Date commencement of	Scheduled date of completion
1								
2								
3								
4								
5								

Name of Tenderer	Signature	Date

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM G CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to certify that I, _____ representing
_____ in the company of
_____ attend the clarification
meeting on 17 September 2024 from 10am to 13pm.

I have made myself familiar with all 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 clarification 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 Municipal Representative	Signature	Date

T2.2.13

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM H PROPOSED KEY PERSONNEL

Please attach CVs of the proposed key personnel.

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel which may have to be brought in from outside if not available locally.

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS					
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Site Agent, Project Managers						
Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc.						
Artisans and other Skilled workers						
Plant Operators						
Others:.....						

The Tenderer shall attach hereto the *curricula vitae*, in the form included hereafter, of at least the site agent, the foreman, safety officer and the project manager. The information is necessary for evaluation of the tender.

Name of Tenderer: Date:

Signature:

Full name of signatory:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM I SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract if my / our tender is accepted.

(a) Details of major equipment owned by me / us and immediately available for this contract.

DESCRIPTION (type, size, capacity, etc.)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted

DESCRIPTION (type, size, capacity, etc.)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

Failure to complete this form properly and correctly, will lead to the conclusion that the tenderer does not have the necessary plant and equipment resources at his disposal, which will prejudice his tender.

Name of Tenderer: Date:

Signature:

Full name of signatory:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM J SCHEDULE OF PROPOSED SUB-CONTRACTORS

We notify you that it is our intention to employ the following sub-contractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed sub-consultants in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us. We agree we will not subcontract more than 25% of the value of the contract to a person who is not an HDI or does not qualify for such preference.

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

Name of representative	Signature	Capacity	Date

Name of organization:	
-----------------------	--

T2.2.16

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
-----------------------------------	----------------------------------	----------------------------------	---------------------------------	----------------------------------	----------------------------------

FORM K FINANCIAL REFERENCES

FINANCIAL STATEMENTS

I/We agree, if required, to furnish an audited copy of the last 3 years' set of financial statements together with my/our Directors' and Auditors' report for consideration by the Client.

DETAILS OF TENDERERS BANKING INFORMATION

I/We hereby authorize the Client/Engineer to approach all or any of the following banks for the purposes of obtaining a financial reference:

BANK NAME:									
ACCOUNT NAME: (e.g. ABC Civil Construction cc)									
ACCOUNT TYPE: (e.g. Savings, Cheque, etc.)									
ACCOUNT NO:									
ADDRESS OF BANK:									
CONTACT PERSON:									
TEL. NO. OF BANK / CONTACT:									
How long has this account been in existence:	<table><tr><td>0-6 months</td><td></td></tr><tr><td>7-12 months</td><td></td></tr><tr><td>13-24 months</td><td></td></tr><tr><td>More than 24 months</td><td></td></tr></table> (Tick which is appropriate)	0-6 months		7-12 months		13-24 months		More than 24 months	
0-6 months									
7-12 months									
13-24 months									
More than 24 months									

Name of Tenderer: Date:
Signature:
Full name of signatory:

T2.2.17

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

FORM L Certificate of Authority of Joint Ventures/ Close corporations/ Partnership/ Company/ Sole proprietor

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(I) CERTIFICATE OF COMPANY

I,, chairperson of the Board of Directors of, hereby confirm that by resolution of the Board (copy attached) taken on 20....., Mr/Ms, acting in the capacity of....., was authorized to sign all documents in connection with the tender for Project No. T/RW07/WSIG/P2/2024/2025 and any contract resulting from it on behalf of the company.

Chairman:

As Witnesses: 1.....

2.....

Date:

T2.2.18

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(II) **CERTIFICATE FOR CLOSE CORPORATION**

We, the undersigned, being the key members in the business trading as
..... hereby authorize Mr/Ms , acting in
the capacity of....., to sign all documents in
connection with the tender for Contract No. T/RW07/WSIG/P2/2024/2025 and any contract resulting from it on our
behalf.

NAME	ADDRESS	SIGNATURE	DATE

***Note: This certificate is to be completed and signed by all of the key members upon whom
rests the direction of the affairs of the Close Corporation as a whole.***

(III) **CERTIFICATE FOR PARTNERSHIP**

We, the undersigned, being the key partners in the business trading as,
....., hereby authorize Mr/Ms ,
acting in the capacity of , to sign all documents in connection with
the tender for Contract No. T/RW07/WSIG/P2/2024/2025 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

***Note: This certificate is to be completed and signed by all of the key partners upon whom
rests the direction of the affairs of the Partnership as a whole.***

T2.2.19

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(IV) **CERTIFICATE FOR JOINT VENTURE**

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms . . .
..... , authorized signatory of the company
..... , acting in the capacity of lead partner,
to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORIZED SIGNATORY
Lead partner		Signature. Name Designation.....
		Signature. Name Designation.....
		Signature. Name Designation.....
		Signature. Name Designation.....

Note: This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Joint Venture as a whole.

(V) **CERTIFICATE FOR SOLE PROPRIETOR**

I,, hereby confirm that I am the sole owner of the Business
trading as

Signature of Sole owner:

As Witnesses: Date:

- 1.....
2.

T2.2.20

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
-----------------------------------	----------------------------------	----------------------------------	---------------------------------	----------------------------------	----------------------------------

FORM M Certificate of Registration with CIDB

The tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. (www.cidb.org.za). Tenderers whose CIDB registration expires within 21 days after close of tender should attach proof of their application for re-registration (refer to Tender Data Clause F.2.1). In the case of a Joint Venture, a printed copy of the Active Contractor's Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Contractor Grading Designation:

CIDB Contractor Registration Number:

Expiry Date:

T2.2.21

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM N Registration on National Treasury Central Supplier

The tenderer shall provide a printed copy of the Active Supplier Listing on the National Treasury Central Supplier Database. (www.treasury.gov.za). Tenderers who are not registered on the Central Supplier Database should attach proof of their application for registration. In the case of a Joint Venture, a printed copy of the Active Supplier Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Central Supplier Database Supplier Number:

Expiry Date:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM O Municipal Utility Account

DECLARATION BY THE TENDERER

I the undersigned _____, has been duly authorized to sign all documents with the Tender for Contract Number _____ on behalf of _____ hereby make a declaration as follows:
(referred to herein as “the Bidder”)

1.

I declare that the bidder and /or any of its director(s) / member(s) does not owe the municipality, or any other municipality and/or municipal entity any amount which is in arrears in respect of any municipal rates and taxes or municipal service charges.
2.

I understand and accept that in the event that this declaration is proved to be false, the bid shall be rejected forthwith. All other rights of the municipality (including but not limited to the right to claim damages where applicable) shall remain reserved in full.

SIGNED ON BEHALF OF THE COMPANY

IN HIS CAPACITY AS

DATE

FULL NAMES OF SIGNATORY

Utility Account Number	Name of Municipality	Name of Owner

ATTACH AN ORIGINAL COPY OF A MUNICIPAL UTILITY ACCOUNT (NOT OLDER THAN THREE (3) MONTHS)

Important: Note the following

- List Account(s) registered either in the name(s) of the Director(s) or the Company on the declaration form attached hereto.

Attach Municipal Utility account of Company’s registered office (if applicable) and in case of leased premises, attach lease agreement and the services account of leased premises. (issued in the name of the bidding company)

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

FORM P Proposed Amendments and Qualifications

Attached here any Proposed Amendments and Qualifications (if any)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM Q Program and Methodology

Attached here a Proposed Program and Methodology

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM R Quality Assurance Plan

Attached here a Proposed Quality Assurance Plan

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM S

Professional registration with ECSA for one key personnel

Attached here Professional registration with ECSA for one key personnel

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE VICTOR KHANYE LOCAL MUNICIPALITY					
BID NUMBER:	T/RW07/WSIG/P2/2024/2025	CLOSING DATE:	17 OCTOBER 2024	CLOSING TIME:	10h00
DESCRIPTION	A PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT					
First floor, Victor Khanye Local Municipality					
Civic Centre					
Corner Van Der Walt Street and Samuel Road					
Delmas					
2210					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
	☐			☐	
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER PART B:3]	
TOTAL NUMBER OF ITEMS OFFERED			TOTAL BID PRICE	R	
SIGNATURE OF BIDDER	.....		DATE		
CAPACITY UNDER WHICH THIS BID IS SIGNED					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT	SCMU		CONTACT PERSON	Mr Toriso Tlou/James Nnzeru	
CONTACT PERSON	Mr DS Mahlangu		TELEPHONE NUMBER	012 336 9800	
TELEPHONE NUMBER	013 665 6000				
E-MAIL ADDRESS	secmm@victorkhanyelm.gov.za		E-MAIL ADDRESS	toriso@louconsult.co.za ; james@louconsult.co.za	

PART B

TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:										
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED – (NOT TO BE RE-TYPED) OR ONLINE										
2. TAX COMPLIANCE REQUIREMENTS										
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS. 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA. 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.										
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS										
<table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?</td> <td style="width: 20%; text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> </table> IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO	3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO	3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO	3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO	3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO									
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO									
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO									
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO									
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO									

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

TAX CLEARANCE REQUIREMENTS

IT IS A CONDITION OF BIDDING THAT -

1. The taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with the Receiver of Revenue to meet his / her tax obligations.
2. The attached form "Application for Tax Clearance Certificate (in respect of bidders)" must be completed in all respects and submitted to the Receiver of Revenue where the bidder is registered for tax purposes. The Receiver of Revenue will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of twelve (12) months from date of issue. This Tax Clearance Certificate must be submitted in the original together with the bid. Failure to submit the original and valid Tax Clearance Certificate may invalidate the bid.
3. In bids where Consortia / Joint Ventures / Sub-contractors are involved each party must submit a separate Tax Clearance Certificate. Copies of the Application for Tax Clearance Certificates are available at any Receiver's Office.

MBD2/ Application for tax Certificate...

APPLICATION FOR TAX CLEARANCE CERTIFICATE
(IN RESPECT OF BIDDERS)

1. Name of taxpayer / bidder:

2. Trade name:

3. Identification number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

4. Company / Close Corporation registration number:

--	--	--	--	--	--	--	--	--	--	--

5. Income tax reference number:

--	--	--	--	--	--	--	--	--	--	--	--

6. VAT registration number (if applicable):

--	--	--	--	--	--	--	--	--	--	--	--

7. PAYE employer's registration number (if applicable):

--	--	--	--	--	--	--	--	--	--	--	--

Signature of contact person requiring Tax Clearance Certificate:

Name:

Telephone number: Code:..... Number:

Address:

DATE: 20____ / ____ / ____

PLEASE NOTE THAT THE COMMISSIONER FOR THE SOUTH AFRICAN REVENUE SERVICE (SARS) WILL NOT EXERCISE HIS DISCRETIONARY POWERS IN FAVOUR OF ANY PERSON WITH REGARD TO ANY INTEREST, PENALTIES AND / OR ADDITIONAL TAX LEVIABLE DUE TO THE LATE- OR UNDERPAYMENT OF TAXES, DUTIES OR LEVIES OR THE RENDITION RETURNS BY ANY PERSON AS A RESULT OF ANY SYSTEM NOT BEING YEAR 2000 COMPLIANT.

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state*.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favoritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorized representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.

3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

- 3.1 Full Name:
- 3.2 Identity Number:
- 3.3 Company Registration Number:
- 3.4 Tax Reference Number:
- 3.5 VAT Registration Number:

3.6 Are you presently in the service of the state* YES / NO

3.6.1 If so, furnish particulars.

.....

3.7 Have you been in the service of the state for the past twelve months? YES / NO

3.7.1 If so, furnish particulars.

.....

3.8 Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and the adjudication of this bid? YES / NO

*** MSCM Regulations: "in the service of the state" means to be –**

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

3.8.1 If so, furnish particulars.

YES / NO

.....
.....

3.9 Are you, aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES / NO

3.9.1 If so, furnish particulars.

.....
.....

3.10 Are any of the company's directors, managers, principle shareholders or stakeholders in service of the state?

YES / NO

3.10.1 If so, furnish particulars.

.....
.....

3.11 Are any spouse, child or parent of the company's directors, managers, principle shareholders or stakeholders in service of the state?

YES / NO

3.11.1 If so, furnish particulars.

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.
I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and targeted goals
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

1.6 A bid may be disqualified if –

- (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
- (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

2. Definitions

2.1. **“bid”** includes written price quotations, advertised competitive bids or proposals.

2.2. **“bid price”** price offered by the bidder, excluding value added tax (VAT);

2.3. **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;

2.4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;

2.5. **“duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).

2.6. **“imported content”** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

2.7. **“local content”** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;

2.8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and

2.9. **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
_____	_____ %
_____	_____ %
_____	_____ %

4. Does any portion of the services, works or goods offered have any imported content?

(Tick applicable box)

YES		NO	
-----	--	----	--

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?

(Tick applicable box)

YES		NO	
-----	--	----	--

- 5.1. If yes, provide the following particulars:

- (a) Full name of auditor:
- (b) Practice number:
- (c) Telephone and cell number:
- (d) Email address:

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the DTI must be informed accordingly in order for the DTI to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION

(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):

NB

1. The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2. Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity), the
following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

- (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (ii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product have been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	Yes ☐	No ☐
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		
		☐	☐

Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS
DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE
TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1 This Municipal Bidding Document (MBD) must form part of all bids¹ 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 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

- a. take all reasonable steps to prevent such abuse;
- b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
- c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4 This MBD 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 (MBD 9) 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.

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 Municipality / Municipal Entity)

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 consortium³ 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.

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.**

MBD 9

10. 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.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

C. THE CONTRACT

Part C1: Agreements and Contract Data

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Form of Guarantee

Part C2: Pricing Data C2.1

- Pricing Instructions
- C2.2 Bills of quantities

Part C3: Scope of Work

- C3 Scope of Work

Part C4: Site Information

- C4 Site Information

Part C5: Relevant Documentation

- C5 Health & Safety Specifications

C1					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

C1 AGREEMENTS AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Form of Guarantee



C1.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF**

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender 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 OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS

.....
.....
..... Rand (in words); R (in figures).

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.

Tenderer Signature(s) _____

Names(s) _____

Capacity _____

For the tenderer _____
(Name and address of Organisation)

Name of Witness _____

Signature(s) _____

C1.2

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
-----------------------------------	----------------------------------	----------------------------------	---------------------------------	----------------------------------	----------------------------------

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 1 Agreements and Contract Data (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site information
- Part 5 Additional Documentation and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto 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, which must be duly signed by the authorized representative(s) of both parties.

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 bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at or just after the date this Agreement comes into effect. 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. Unless the Tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

Tenderer Signature(s) _____

Names(s) _____

Capacity _____

For the tenderer _____
(Name and address of Organisation)

Name of Witness _____

Signature(s) _____

C1.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE OF DEVIATIONS

Notes:

- 1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
- 2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here.
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1 Subject

Details

2 Subject

Details

3 Subject

Details

4 Subject

Details

5 Subject

Details

6 Subject

Details

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer

C1.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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 change 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.

FOR THE TENDERER:

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name of Witness _____

Signature(s) _____

FOR THE EMPLOYER

Signatures (s) _____

Name(s) _____

Capacity _____

Victor Khanye Local Municipality - Corner Van Der Walt and Samuel Road, Delmas

Name of Witness _____

Signature(s) _____

C1.2 CONTRACT DATA

C1.2.1: GENERAL CONDITIONS OF CONTRACT

CONDITIONS OF CONTRACT

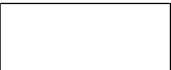
The Conditions of Contract are the *General Conditions of Contract for Construction Works (2015)* published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institute of Civil Engineering (Tel: 011 805 5947).

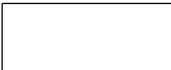
C1.2.2: VARIATIONS AND ADDITIONS TO THE CONDITIONS OF CONTRACT (SPECIAL CONDITIONS)

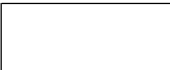
The following variations and additions to the **GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS, THIRD EDITION (2015)**, shall apply to this Contract:

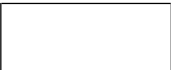
Clause/ Sub-Clause	Special Conditions
1.1.1	Add the following new paragraph to Sub-Clause 1.1.1.5: The Commencement Date shall not be later than 28 days after the date of delivery of Letter of Acceptance unless otherwise agreed in terms of the Contract.
1.1.1	Add the following new Sub-Clause 1.1.1.35: "Construction Manager" means the natural or juristic person or partnership named as the Construction Manager in the Contract Data or any other person appointed from time to time by the Employer and notified in writing to the Contractor to act as Construction Manager for the purposes of the Contract in place of the Construction Manager so named.
1.1.1	Add the following new Sub-Clause 1.1.1.36: "Materials Manager" means the natural or juristic person or partnership named as the Materials Manager in the Data provided by Employer or any other person appointed from time to time by the Employer and notified in writing to the Contractor to act as Materials Manager for the purposes of the Contract in place of the Materials Manager so named.
1.1.1	Add the following new Sub-Clause 1.1.1.37: "Training Manager" means the natural or juristic person or partnership named as the Training Manager in the Data provided by Employer or any other person appointed from time to time by the Employer and notified in writing to the Contractor to act as Training Manager for the purposes of the Contract in place of the Training Manager so named.
	Add the following new Sub-Clause 1.1.1.38: "Letter of Acceptance" means the written communication by the Employer to the Contractor recording the acceptance by the Employer of the Contractor's Bid.
1.2.1	Add the following to the clause:

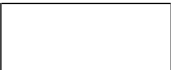
C1.6

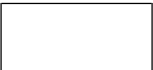

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

Clause/ Sub-Clause	Special Conditions
1.2.1.3	Sent by facsimile, electronic or any like communication irrespective of it being during office hours or otherwise.
1.2.1.4	Posted to the Contractor's address, and delivered by the postal authorities.
1.2.1.5	Delivered by a courier service, and signed for by the recipient or his representative.
1.2.3	Add the following new Sub-Clause 1.2.3: The Employer has authorised the Manager: Project Management Unit (PMU) to act on his behalf in respect of this Contract, save for such duties or functions 1.2.3.1 which other holders of office ex-officio execute on behalf of the Employer; or 1.2.3.2 for which the Manager: Project Management Unit (PMU) has no authority and the Employer's approval is required before execution thereof.

C1.7

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
3.1.3	The Engineer is required to obtain the approval of the Employer: 3.1.3.1 for expenditure on the Contract to exceed the Contract Price; 3.1.3.2 prior to the execution of any of the following duties or functions: 1.1.1.5 <i>Delivery of the written notice to commence the execution of the Works.</i> 3.2.1 <i>Nomination of person as Engineer's Representative.</i> 3.2.4 <i>Authorisations to Engineer's Representative or any other person.</i> 4.10.1 <i>Approval to use the Site for other purposes such as housing.</i> 5.6.1 <i>Approval of programme of construction.</i> 5.7.2 <i>Permission to carry out work by day and by night</i> 5.8 <i>Approval to work on special non-working days and between sunset and sunrise, i.e. at night</i> 5.9.7 <i>Approval of Contractor's designs.</i> 5.11.1 <i>Suspension of progress of Works.</i> 5.12.1 <i>Granting of extension of time.</i> 5.13.2 <i>Reduction of penalty for delay</i> 5.14.2 <i>The issue of a Certificate of Practical Completion.</i> 5.14.4 <i>The issue of a Certificate of Completion.</i> 5.16.1 <i>The issue of a Final Approval Certificate.</i> 6.3.1 <i>Variation Orders in respect of variations which are not small.</i> 6.6 <i>Instruction to expend on Provisional and Prime Cost Sums.</i> 6.11 <i>Adjustment of Preliminary and General allowances.</i> 7.8.1 <i>Order to execute work of repair, etc, during the Defects Liability Period.</i> 7.8.2.2 <i>Determination of value of repair work</i> 8.2.2.2 <i>Order to repair and make good damage arising from any "excepted" risk.</i>
3.2.7	Add the following new Sub-Clause 3.2.7: The Employer may, in his sole discretion, provide technical support services to the Contractor if so requested by the Contractor. The technical team providing such support services will be appointed and remunerated by the Employer. The technical team will consist of the Engineer and a person or persons

C1.8

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
	acting as Training, Construction and Materials Managers, depending on the services to be provided and the scope of the functions to be executed. 3.2.7.1 In addition to his duties and functions in terms of 3.1.1, the Engineer will co-ordinate the work of the technical team providing the support services. 3.2.7.2 The Construction Manager acts as mentor to the Contractor in respect of the following functions, which are described fully in the SAACE document, Guideline Contract Specific Data C4 - Construction Management Services of the Form of Agreement for Consulting Services for Labour-Intensive Construction Projects: i) Programming the execution of the works. ii) Interpretation of drawings, specifications and related contractual matters. iii) Workforce structuring, employment and management. iv) Guidance to expedite work progress/ improve productivity. v) Setting out of works. vi) Safety measures and legislation requirements. vii) Materials handling. viii) Tools and equipment needs. ix) Financial matters. x) Training requirements. xi) Security aspects. xii) Quality control systems. 3.2.7.3 The Materials Manager is responsible for the following functions which are described fully in the SAACE document, Guideline Contract Specific Data C5 - Materials Procurement Services of the Form of Agreement for Consulting Services for Labour -Intensive Construction Projects on the Contract: i) Establishment of stores. ii) Determination of store administration procedures. iii) Determination of requirements of store staff. iv) Employment of store staff. v) Staff guidance, supervision and training. vi) Acquisition of materials. vii) Issue of materials. viii) Upholding of an assets register. ix) Insurance of assets.

C1.9

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
4.3.1	Add the following to the clause: The Contractor shall comply with the Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2014 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993). Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall before commencement of the Works or any part thereof, be in the possession of an approved Health and Safety Plan.
4.3.3	Add the following new clause: Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37(2) of the Act. The Contractor shall sign the Occupational Health and Safety Agreement for Contract Work in the Victor Khanye Local Municipality included in section C1.5.
4.3.4	Add the following new clause: The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.
4.3.5	Add the following new clause: Contractor's Designer The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2014 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract.
4.5	Add the following new Sub-Clauses: 4.5.5 On the request of the Contractor, the Employer may, in his sole discretion, provide a support service to the Contractor in the giving of notices and in obtaining

C1.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
	requisite consents, permissions and permits. 4.5.6 The Employer will not advance any funds in respect of cyclic sums payable by the Contractor in the ordinary course of his business.
4.11.1	Add the following to Clause 4.11.1 Notwithstanding the wording of this Clause, on request of the Contractor the Employer may in his sole discretion, provide trade-skills training to the Contractor's employees to improve their competency and efficiency commensurate with the requirements of the Works.
5.12.2	Add the following to Clause 5.12.2 5.12.2.5 Critical Path Provision A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Engineer rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.
	5.12.2.6 Extension of time due to Abnormal Rainfall Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and/or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.
	Method 1: Rainfall Formula Method The rainfall records and/or values derived from rainfall records from a suitable rainfall station near the Site, which are supplied in the Project Specifications, shall be considered suitable for the determination of extension of time due to abnormal rainfall in accordance with this method. Extension of time arising from abnormal rainfall, shall be calculated separately for each calendar month or part thereof for the full period of completion of the Contract, including any extension thereof, in accordance with the rainfall formula given below: $V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$ If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.

C1.11

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
	If V is positive and greater than the number of calendar days in the calendar month under consideration, V shall be taken as equal to the number of calendar days in the relevant calendar month. The symbols shall have the following meanings: V = extension of time in calendar says in respect of the calendar month under consideration. Nw = actual number of days during the calendar month on which a rainfall of Y mm or more has been recorded. Rw = actual rainfall in mm for the calendar month under consideration. Nn = average number of days as derived from existing rainfall records, on which a rainfall or Y mm or more has been recorded for the calendar month. Rainfall records and/or the derived values of Nn will be provided in the Specifications. Rn = average rainfall in mm for the calendar month, as derived from existing rainfall records. Rainfall records and/or the derived values of Rn will be provided in the Project Specifications. X = 20, unless otherwise provided in the Project Specifications. Y = 10, unless otherwise provided in the Project Specifications. The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration. However, if the grand total is negative the time for completion shall not be reduced on account of abnormal rainfall. Extension of time for parts of a month shall be calculated by pro rata values of Nn and Rn being used. The factor (Nw – Nn) shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds Y mm and wet conditions prevented or disrupted work. The factor $\frac{Rw - Rn}{X}$ shall be considered to represent a fair allowance for variations from the allowance for variations from the average number of days when wet conditions further to that allowed for the factor (Nw – Nn), prevented or disrupted work during the calendar month. Accurate rain gauging shall be taken at a suitable point on Site and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with.

C1.12

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
	This formula does not take into account further on concurrent delays which could be caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5) (Critical Plan Provision) hereof. Method 2: Expected Delay Method The Contractor shall make provision in his programme for the execution of the Works, for an expected delay of "n" normal working days (based on a working week of five normal working days) due to normal rainfall, for which he will not receive any extension of time. Unless otherwise provided in the Project Specifications, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded of to an integer. Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with Sub-Clause (5) (Critical Path Condition) hereof, exceed the number of "n" normal working days. The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5) (Critical Path Condition) hereof.
6.2.3	Add the following to Clause 6.2.3: As an alternative to a security, the Contractor may deposit with the Employer a cash amount in a sum equal to the amount stated in the Data provided by Employer. All the provisions in respect of the security apply mutatis mutandis to the cash deposit except that the amount deposited will be repaid to the Contractor within 30 days after the issue of the Certificate or Certificates of Completion in respect of the whole of the permanent works.
6.6.2	Add the following to Clause 6.6.2: The amount of the charge to be paid to the Contractor shall be in the same proportion to the actual amount paid to the Contractor as the charge included by the Contractor in his Tender bears to the Prime Cost Sum in the Tender.
6.9	Add the following new Sub-Clause: 6.9.6 Should the Employer provide a materials management support service to the Contractor, the Contractor's responsibility in terms of this Clause will commence on receipt of the materials.

C1.13

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause/ Sub-Clause	Special Conditions
6.10.4	Replace the wordings “within 7 days” and “within 28 days” in Clause 6.10.4 with the wording “within the number of working days stated in the Contract Data” respectively.
6.10.6.2	Replace Clause 6.10.6.2 with the following new Clause 6.10.6.2: 6.10.6.2 No interest shall be payable to the Contractor upon any moneys retained or overdue in terms of the Contract.
6.10	Add the following new Clause 6.10.10: 6.10.10 The Contractor shall be paid at Delmas in the currency of the Republic of South Africa only at the Office of the Chief Financial Officer of the Victor Khanye Local Municipality, unless otherwise stated in the Data provided by Employer.
9.2.1	Replace the wording “fourteen (14) days” in Clause 9.2.1 with the wording “for the period stated in the Contract Data”.

Each item of data given below is cross-referenced to the clause in the Conditions of Contract to which it mainly applies.

C1.2.3: Data provided by the Employer.

	Clause	
The Defects Liability is	1.1.1.13	12 Months
The time for achieving Practical Completion is	1.1.1.14	12 Months
Name of Employer	1.1.1.15	Victor Khanye Local Municipality
Address of Employer	1.2.1.2	<i>The Municipal Manager: Corner Van Der Walt Street and Samuel Road Delmas 2210 South Africa Tel: (013) 665 6000 Fax:(013) 665 2913</i>
Name of the Engineer	1.1.1.16	<i>Tlou Consulting (Pty) Ltd Contact: Toriso Tlou Alternatively: James Nnzeru</i>

C1.14

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	Clause	
Address of Engineer	1.2.1.2	121 Boshoff Street Nieuw Muckleneuck Pretoria 0187 Tel: (012) 336 9800
The pricing strategy is	1.1.1.26	
Construction Manager	Special Condition 1.1.1.35	None
Materials Manager	Special Condition 1.1.1.36	None
Applicable labour laws	4.3.1	For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the Sectorial Determination 2: Civil Engineering Sector, Government Gazette No. 33505 dated 27 August 2010, with effect from (w.e.f.) 1 September 2010, as corrected by Government Gazette 33804 dated 26 November 2010) Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per correct Government Gazette No. 42986 dated 31 January 2020 (Revised on 17 February 2020), shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers
The documentation required before commencement with Works execution are	5.3.1	Health and safety Plan (Refer to Clause 4.3) Initial Programme (Refer to Clause 5.6) Security (Refer to Clause 6.2) Insurance (Refer to Clause 8.6)
Time within which Works to be commenced	5.3.1	14 Days after the Commencement Date.
The time to submit the documentation required before commencement with Works execution is	5.3.2	14 days
Programme to be furnished within	5.6.1	14 Days after the Commencement Date.
The special non-working days are	5.8.1	Official builder holidays plus statutory public holidays.
Normal working hours	5.8.1	Monday to Friday, Between 07:00 and 17:00.
The penalty for failing to complete the whole of the works	5.13.1	R 2500 per calendar day.
Time for Completion	5.5.1	12 months
Amount of Security	6.2	10% of Tender Sum (Exclusive of contingencies and VAT)
Time within which Security to be provided	6.2	14 Days after receipt of Letter of Acceptance.
Duration of Security	6.2	Until issue of Certificate of Completion.

C1.15

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	Clause	
Payment to labour-intensive component of the works	6.1.1	Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way of his obligations either in contract or in delict
Contract Price Adjustment Schedule	6.8.2	NA - Not Applicable
CONTRACT PRICE ADJUSTMENT SCHEDULE	6.8.2	x = 0,10 a = 0,15 b = 0,20 c = 0,55 d = 0,10
Delivery of Contractors Statement	6.10.1	Monthly
Percentage on material not yet built into the Permanent Works (MOS)	6.10.1.5	80%
Percentage retention	6.10.3	10%
Limit of retention money	6.10.3	5% of Contract Price
Retention money Security	6.10.3	Not permitted.
Delivery of payment certificate by Engineer to Employer	Special Conditions 6.10.4	7 days
After receipt by Engineer of Contractor's statement, Employer to pay Contractor within:	Special Conditions 6.10.4	30 days
Making good of defects in Defects Liability Period	7.8.1	12 Months.
Preferred method for determination of disputes	10.7.1	Arbitration.
Cancellation of the Contract by the Employer	Special Conditions 9.2.1	14 days

C1.16

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.2.4: DATA PROVIDED BY THE CONTRACTOR

The Contractor is advised to read the *General Conditions of Contract for Construction Works 3rd Edition (2015)*, published by the South African Institution of Civil Engineering, in order to understand the implications of this Data which is required to be completed.

Each item of data given below is cross-referenced to the clause of Conditions of Contract to which it mainly applies.

Clause	Data
1.1.1.9	The Contractor is: Name:
1.2.1.2	The Address of the Contractor is: Address (physical): Address (postal): Telephone: Facsimile: E-mail:
6.5.1.2.3	The percentage allowance to cover overhead charges is

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.3 FORM OF GUARANTEE**FORM OF GUARANTEE****Tender No: T/RW07/WSIG/P2/2024/2025****PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER
RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER
IN SUNDRA & ELOFF**

WHEREAS

.....
at**VICTOR KHANYE LOCAL MUNICIPALITY**
(Hereinafter referred to as "the Employer")

entered into, on the Day of2020, at

a Contract with

at

(Hereinafter called "The Contractor")

for the PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER
RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN
SUNDRA & ELOFF as per Scope of work AND WHEREAS it is provided by such
Contract that the Contractor shall provide the Employer with security by way of
suretyship for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS

has/have at the request of the Contractor, agreed to give such security;

NOW THEREFORE WE,

do hereby guarantee and bind ourselves jointly and severally as Sureties and Co-principal
Debtors to the Employer under renunciation of the benefits of division and execution for the due
and faithful performance by the Contractor of all the terms and conditions of the said Contract,
subject to the following conditions.

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Due Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the Due Completion Date which the Employer may make, give, concede or agree to under the said Contract.
2. The Employer shall be entitled, without reference to us, to release any securities held by it, and to give time to or compound or make any other arrangement with the Contractor.

C1.4 FORM GUARANTEE (CASH DEPOSIT)CONTRACT NO.: T/RW07/WSIG/P2/2024/2025

Employer: Victor Khanye Local Municipality

Contractor:.....

Description of Contract:

I/We, the undersigned,.....
(Contractor)

Do deposit herewith cash *a bank certified cheque", in the amount of

.....

....., as surety for
the due performance of the Contract by the abovementioned Contractor, and for all losses, damages
and expenses that may be suffered or incurred by the Employer as a result of non-performance of the
Contract by the Contractor, renouncing all benefits from the legal exceptions ordinis seu excussions et
divisions no value received and all other exceptions which might or could be pleaded against the
surrender of this deposit.

The deposit shall be returned to the Contractor on the issue of the Completion Certificate in terms of
the Contract, unless the Contractor is advised in writing by the Employer before issue of the said
Certificate of his intention to institute claims and the particulars thereof, in which event this deposit
shall remain in force until all such claims are paid or settled.

FOR AND ON BEHALF OF (Contractor)

AT.....on this day of20.....

SIGNATURE:

CAPACITY:

ADDRESS:

.....

AS WITNESS: 1.....

2.....

C1.5 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

This agreement is mandatory for all contractors appointed by the Victor Khanye Local Municipality or any other institution that do work for or on behalf of Victor Khanye Local Municipality. (Or any other institution in the Jurisdiction of Victor Khanye Local Municipality)

This agreement is between:

THE CONTRACTOR:

Herein represented by

In his capacity asBeing duly authorized hereto hereinafter referred to as “contractor”.

Compensation Commissioner Number:

(Attach a copy of the Registration Certificate to this agreement)

Company : Name:

Registration Number:

CEO/DIRECTOR: Name:

ID Number:

Physical Address:

.....

And the

Victor Khanye Local Municipality
(Hereinafter referred to as “the Council”)

1. DEFINITIONS

- 1.1

CONTRACTOR

Means the “Contractor” as defined in the “Principal Contract” Annexed hereto in his capacity as mandatary.
- 1.2

MANDATARY

Includes an agent, contractor or subcontractor for work to be done or service rendered, but without derogating from his status in his own right as an employer of people or user of equipment, machinery, tools or materials.
- 1.3

THE PRINCIPAL CONTRACT

Means the contract annexed as Form of Offer and Acceptance, Section C1.1
- 1.4

COUNCIL

Means the Victor Khanye Local Municipality.

1.5 **RISK CONTROL OFFICER** A person appointed in writing by Council.

1.6 Any definitions contained in any Statute hereinafter mentioned shall have the meaning allocated to it by the specific statute.

2. OBJECTIVE

- 2.1 Whereas Council and the Contractor have entered into a contract for service (work) as fully indicated in the "Principal Contract" and whereas the "Contractor" agreed to indemnify Council against the risks stated hereunder whether foreseeable or not, and, whereas it is agreed between the parties that it is of cardinal importance to safeguard both Council and the Contractor's obligation in terms of relevant legislation as well as to extend the obligation as a company and/or legal person and/or person as an entity concerned with health, safety and the environment.
- 2.2 These rules are applicable to all contractors performing work for Council within the jurisdictional area of the Council and on any premises which are owned, rented or developed by the Council.
- 2.3 The Council acts through those officials or persons who are generally or specifically charged with the responsibility, in terms of legislation, as well as any other official or person who is generally or specifically charged with the control and supervision of the project.

IT IS HEREBY AGREED AS FOLLOWS:

3. INDEMNITIES

- 3.1 The "Contractor" hereby indemnifies the "Council" against any loss in respect of all claims, proceeding, damages, costs and expenses arising out of any claim or proceeding pertaining to the non-compliance by the "Contractor" of any statutory requirements and/or requirements regarding the following Acts in particular pertaining to the provisions of:
- 3.1.1 The Occupational Health and Safety Act 85 of 1993 (as amended), including the Construction Regulations, 2014 as promulgated on 07 February 2014, in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), in Government Gazette No. 37305 and Regulation Gazette No. R.84
 - 3.1.2 The Health Act 63 of 1977.
 - 3.1.3 Road Traffic Act 29 of 1989 (as amended).
 - 3.1.4 Environment Conservation Act 73 of 1989.
 - 3.1.5 The National Water Act 36 of 1998.
 - 3.1.6 The Criminal Procedure Act 51 of 1977.
 - 3.1.7 The Explosives Act 26 of 1956.
 - 3.1.8 The Arms and Ammunition Act 75 of 1969.
 - 3.1.9 Compensation for Occupational Injuries and Diseases Act 130 of 1993.
 - 3.1.10 The Labor Relations Act 66 of 1995.
 - 3.1.11 The Unemployment Insurance Act 30 of 1966 (as amended).
 - 3.1.12 The Basic Conditions of Employment Act 75 of 1997 (as amended).
 - 3.1.13 Standards Act 29 of 1993.
 - 3.1.14 any statutory provisions in any act and/or any law or bylaw of any local government and/or any published official standard incorporated into any statute or bylaw relating to the completion of the work set out in the "Principal Contract".
 - 3.1.15 Any other health and safety standard prescribed by the "Council".

- 3.2 The "Contractor" shall ensure that he familiarises himself with the requirements of the above legislation and that he, his employees and any subcontractor will comply with all the statutory provisions contained in them.
- 3.3 The "Contractor" shall indemnify the "Council" in respect of any physical loss or damage to any plant, equipment or other property belonging to the "Contractor" or for which he is responsible and he hereby indemnifies the "Council" against any loss in respect of all claims, proceedings, damages, costs and expenses consequent upon the loss of or damage to any plant, equipment or other property belonging to, or which is the responsibility of, any subcontractor, agent or employee of the subcontractor.
- 3.4 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings whatsoever, whether arising in common law or by statute, consequent on personal injuries to or the loss of health or death of any person whosoever arising out of or in the course of or caused by the execution of the "Principal Contract".
- 3.5 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings consequent on loss of or damage to any movable or immovable property arising out of or in the course of or caused by the execution of the "Principal Contract" and due to any act or omission of the "Contractor", his agents, servants or subcontractors.

4. PERFORMANCE SAFE WORKING PRACTICE

- 4.1 The "Council" requires a high standard of safe work performance from all employees and expects that the standard be maintained by the "Contractor" within the "Council's" jurisdictional area or on its premises.
- 4.2 Irrespective of human considerations, the maintaining of these health and safety rules shall be the execution of the prescribed legal requirements. These rules are not to hinder the "Contractor" in rendering services or indemnify the "Contractor" from any legal responsibility to ensure healthy and safe work circumstances.
- 4.3 The "Council" shall assist the "Contractor" in any practical considerations to accommodate the healthy and safe execution of work and therefore require co-operation in the execution of these safety rules.

5. LOCK OUT PROCEDURE

- 5.1 When power or air driven machines or equipment, electrical apparatus or pipelines are examined, repaired, adjusted, cleaned, lubricated or serviced in any other way than normal servicing, then all isolating switches, levers, valves or appliances must be put in the "off" or "closed" position and locked.
- 5.2 Should more than one team work on a machine, then each person in control of a team, must put a separate lock on the switch, lever, valve or appliance.

6. CRANES, VEHICLES AND HOISTING

- 6.1 For each crane or hoisting equipment used, the "Contractor" must submit a valid and recent test certificate or other form of the last examination of the machine or equipment, to the "Council".
- 6.2 Only trained personnel with written permission and where determined by Law, with a valid driver's license, may be allowed to operate any electrical diesel or petrol driver overhead crane, hydraulic or electrical hoisting equipment, self driven forklift, tractor or any other crane or vehicle. No employee of the "Contractor" may perform any overhead work or work on an overhead crane or hoisting equipment or work near cranes or crane rail, before:
 - i) An agreement was concluded with the "Council".

- ii) Approval has been obtained from the “Council” to perform the work.
- iii) All applicable danger – and warning symbolic signs are put into position, or exemption, if applied for, is in operation.

6.3 The “Contractor” shall be wholly responsible for any loss or damage to cranes, hoisting equipment, plant, machines or equipment brought onto the work site by the “Contractor”

7. MACHINE VALANCES, PROTECTION AN FENCING

7.1 No machine valances, protection or fencing may be removed from machines, manholes, etc without the written permission of the “Council” if applicable exemption procedures were not appropriated.

8. SCAFFOLD, LADDERS, TOOLS AND EQUIPMENT

- 8.1 No equipment or appliance belonging to “Council” may be used without written permission from “Council”.
- 8.2 Unless prior arranged, “Contractors” must bring sufficient tools and equipment to the site to finish the contract, including offices and storerooms. The mentioned equipment remains the responsibility of the “Contractor” with respect to loss, damage and theft.
- 8.3 In exceptional cases, where tools and equipment belonging to the “Council” are used to finish the contract, the said equipment and tools are used at own risk and the “Contractor” indemnifies the “Council” from any claims that may arise. The said indemnity must be in writing, as well as information regarding the loan period, identification and condition of tools and equipment. The “Contractor” is responsible for the returning of said tools and equipment in the same condition or better. The “Contractor” is responsible to the “Council” for any damage or excessive wear of such tools or equipment and material.

9. EXCAVATIONS

- 9.1 Before any excavations commence, written permission must be obtained from the "Council" to confirm the location of existing electrical cables, water pipes, etc.
- 9.2 All excavations and obstructions in floor, tar and dirt surfaces must be fenced effectively and safeguarded between sundown and sunup with a sufficient amount of red/yellow warning lights and symbolic signs.
- 9.3 The surrounding area must be kept clean, safe and tidy during excavation. Excess material may not obstruct unnecessarily.
- 9.4 If any property is in danger during excavation, it must be supported and the proposed support work must be submitted to the Department of Labour (DoL) and the "Council" for approval.
- 9.5 Written permission must be obtained from the "Council" to grant admittance to restricted areas as well as areas where dangerous or poisonous gases are present.

10. FIRST AID

- 10.1 The "Contractor" must provide and maintain a first aid box equipped according to legal requirement where more than (5) five persons are employed. The first aid box must be in the care of a person with a competency certificate from one of the following organizations:
 - (i) SA Red Cross Association;
 - (ii) St Johns Ambulance;
 - (iii) SA First Aid League; or
 - (iv) A person or organization approved by the "Council" for this purpose.
- 10.2 A visible notice must be put up on any work premises with the name of the person responsible for first aid. In an emergency the "Council's" Fire Department and Emergency services may be contacted at Tel: -----, Email: -----.

11. FLAMMABLE LIQUIDS

- 11.1 The "Contractor" shall be held responsible for the necessary precautionary fire prevention measures. "No smoking" signs must be put up where applicable. The "Contractor's" employees must be informed of the "Council's" fire prevention measures and evacuation procedures.

12. COMPENSATION BY CONTRACTOR

12.1 The "Contractor" shall be held responsible for all loss of and damage to property, the death or injury of persons, the resultant loss or damage suffered as well as all lawsuits, claims, costs, charges, fines and expenses due to negligence, violation of statutory liability or neglect of the "Contractor" or the "Contractor's" employees.

13. TRANSGRESSION OF RULES AND MISBEHAVIOUR

13.1 The "Contractor" is warned that any act(s) leading to damage or loss of employees of the "Contractor" or the "Council" shall not be tolerated. The "Council" may (without any reason) demand that any employee of the "Contractor" be withdrawn from the principal "Contract" or site.

14. INCIDENT REPORTING

14.1 All incidents referred to in Section 26 of the Occupational Health and Safety Act and or other incidents shall be reported, by the "Contractor", to the Department of Labour, as well as to the "Council" and should such an incident take place outside normal working hours, on a Saturday, Sunday or Public holiday toThe "Council" shall further be provided with a written report relating to any incident.

14.2 The "Council" will obtain an interest in the issue of any formal inquiry conducted in terms of the Occupational Health and Safety Act in any incident involving the "Contractor" and/or his employees and/or his subcontractors.

14.3 The "Contractor" undertakes to report to the "Council" anything deemed to be unhealthy and/or unsafe and that he undertakes to communicate with his employees and/or subcontractors in this regard.

15. LIAISON AND SUPERVISION

15.1 The "Contractor" hereby undertakes to liaise on a regular basis with the designated Risk Control Officer and the "Council" representative regarding any hazards or incidents that may be identified or encountered during the performance of the "Principal Contract".

16. SERVICE INTERRUPTION

16.1 Should any work done by the "Contractor" cause a possible interruption, written permission must be obtained from the "Council" before such work commences. The "Contractor" may not switch on or off any compressed air, steam, oxygen, vacuum supply, or electrical supply without written permission from the "Council".

17. CONFIDENTIALITY

17.1 The "Contractor" and his employees shall regard all data, documentation and information of the contract and related documentation as confidential.

17.2 Lost documentation/plans or related documentation shall immediately be reported in writing to the "Council".

17.3 The "Contractor" shall not put up any advertisements or billboard at the site without permission.

17.4 The "Contractor" shall not take photographs of the contract site or part thereof or any work process or part thereof, without written permission from the "Council", or have photographs taken, published or let it be published.

18. CONTRACT SITE AND PRESERVATION

18.1 Employees of the "Contractor" shall not be allowed entrance to the site unless a valid identity document, issued by the "Council", is displayed. The mentioned documents shall only be valid for a limited period, where after it must be renewed.

19. COMPLETION OF WORK

19.1 The "Contractor" or his employees shall not leave the contract site before the "Council" is satisfied that the contract is completed according to the requirements and standards set out in the contract and that the working site is left in a satisfactory and safe condition.

20. LIQUOR, DRUGS, DANGEROUS WEAPONS AND FIREARMS

20.1 The "Contractor" shall ensure that no liquor, drugs, dangerous weapons or firearms are brought onto the premises.

21. SEARCHES

21.1 The "Contractor" and any person engaged in the contract work may at any time be searched by the "Council" appointed security personnel and all packages, suitcases, etc. must be presented to the access control point for examination prior to them being brought onto the property or leaving the property.

22. GENERAL CONDITIONS

22.1 Notwithstanding anything to the contrary in this agreement, it is hereby specifically determined that the "Contractor"

22.1.1 shall have acquainted himself and be conversant with the contents of all statutory provisions applicable to the health and safety of workers and other persons on the site including the execution of the work, and in particular the conditions contained in the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and the regulations promulgated in terms thereof, and shall comply therewith meticulously and in all aspects and/or take care that it is complied with;

22.1.2 shall be obliged to immediately execute all instructions given to him by an authorized representative of "Council" in order to ensure and uphold the implementation and enforcement of the provisions referred to in sub-paragraph 1, to the satisfaction of the said representative;

22.1.3 shall indemnify the "Council" against any or all liability which may be incurred by the "Council" as a result of the omission of the "Contractor", his employees, sub-contractors and/or

representatives to comply with the provisions referred to in sub-paragraph 1, or to ensure that it shall be complied with;

22.1.4 shall undertake to pay upon demand any and/or all legal costs and other expenses which the "Council" may have incurred as a consequence of any criminal charges or other proceedings pending against or involving the "Council" as a result of the contravention or non-compliance by the "Contractor", his employees, sub-contractors and/or representative of any of the statutory provisions referred to in sub-paragraph 1.

22.1.5 Should the "Contractor" neglect to immediately execute any health and safety written orders issued to him, or to his employee in charge of the works, in terms of the stipulations of sub-paragraph 2, the "Council" shall be entitled to suspend the execution of the works and take the necessary steps to execute or have such order executed. Under these circumstances the contractor shall be obliged to pay the "Council", upon demand, all costs and expenses incurred by the "Council", in order to execute or have the said orders executed.

22.1.6 Should the abovementioned steps not establish a healthy and safe work environment the "Council" will be entitled to terminate the contract without incurring any further costs or claims from the contractor.

23. "CONTRACTOR" IDENTIFICATION BOARD

23.1 The "Contractor" shall provide on any work premises a temporary identification board containing at all worksites the following information:

- a) Company name
- b) On behalf of which division/department the work is being done
- c) The contact number and name of the person representing the "Contractor"
- d) The contact number and name of the person representing the "Council"

24. ACKNOWLEDGEMENT

24.1 The "Contractor" hereby acknowledges that he has read and received a copy of the "Principal Contract" and agrees to be bound by and undertakes to observe all the terms and conditions of the "Principal Contract". This appointment is made in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993.

25. EXCEPTIONS AND OMISSIONS

26. REMARKS

THE CONTRACTOR

SIGNED AT ON THIS DAY OF

WITNESSES:

.....
THE CONTRACTOR

1.
2.

THE COUNCIL

SIGNED AT ON THIS DAY OF

WITNESSES:

.....
THE COUNCIL

1.
2.

INDEMNITY CERTIFICATE

Contractor: _____

Employer: Victor Khanye Local Municipality

Contract: T/RW07/WSIG/P2/2024/2025

I/we _____

Hereinafter the "Contractor".

The "Contractor" hereby indemnifies the Victor Khanye Local Municipality (Council) against any claim of whatever sort which may arise directly or indirectly from the execution by me/us of the above-mentioned contract and which may be instituted against the "Council", as well as of any loss or damage which the "Council" suffers or expenditure the "Council" incurs to prevent responsibility for such claim, loss or damage, whatever the cause of such claim may be or whatever loss or damage the "Council" suffers.

THUS done and signed at on this day of
.....20.....

WITNESSES:

1.

CONTRACTOR
2.

COUNCIL

ACKNOWLEDGEMENT CERTIFICATE

I, in my capacity as.....

Duly authorized hereto.....representing

..... (The Contractor/s), acknowledge

receipt of a copy of the Victor Khanye Local Municipality's safety manual for contractors and the under mentioned person as my supervisor regarding all works and services which must be executed by the Contractor. The appointment is done in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

SIGNED AT ON20.....

I, accept the abovementioned appointment and declare that I am familiar with the contents of the Victor Khanye Local Municipality's Safety Manual for contractors.

CASUALTIES REGISTRATION NUMBER

SIGNED AT ON20.....

SIGNATURE:

WITNESSES: 1.

2.

A copy of this certificate shall be submitted to the "Council" before any work commences.

3. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
4. Our total liability hereunder shall not exceed the sum of (R).
5. We hereby choose domicilium citandi et executandi for all purposes arising hereof at
.....

IN WITNESS WHEREOF this guarantee has been executed by us at on
this..... day of 20

As witnesses:

- | | | |
|----|-------|---|
| 1. | ..... | Signature |
| 2. | | Duly authorized to
sign on behalf of |
| | | Address |
| | | |
| | | |

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025

PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

C2 PRICING DATA

- C2.1 PRICING INSTRUCTIONS
- C2.2 BILL OF QUANTITIES

C2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025

PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

C2.1 PRICING INSTRUCTIONS

1. The Tender Data, the Scope of Work and the Drawings are to be read in conjunction with the Schedule of Quantities.
2.
 - a. The Schedule comprises items covering the Contractor's profit and costs of general liabilities and of the construction of temporary and permanent Works.
 - b. Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Schedule, his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional works carried out and that the Engineer is obliged to base his assessment of the payment to be paid for such additional work on the rates inserted in the Schedule by the Contractor.
 - c. Clause 8 of each Standardised Specification and the measurement and payment clause of each Particular Specification, read together with the relevant clause of the Project Specification, set out what ancillary or associated activities are included in the rate for the operations specified.
3. Descriptions in the Schedule of Quantities are abbreviated. The schedule has been drawn up generally in accordance with the latest issue of "Civil Engineering Quantities". Should any requirement of the measurement and payment clause of the applicable Standardised Specification, Project Specification or the Particular Specification(s) conflict with the terms of the Schedule or relevant "Civil Engineering Quantities", the requirement of the Standardised, Project or Particular Specification, as applicable, shall prevail.
4. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.
5. The prices and rates to be inserted in the Schedule of Quantities are to be the full inclusive prices to the Employer for the work described under the several items. The prices and rates shall be exclusive of Value Added Tax. VAT will be added last on the summary page of the Bill of Quantities.

Such prices shall cover all costs and expenses that may be required in and for the construction 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.
6. A price or rate is to be entered, in **BLACK INK**, against each item in the Schedule of Quantities.
7. In the event of the Tenderer failing to price any item it will be held that the Tenderer has made adequate allowance under other items for all labour, material and costs required for the execution, not only of the

C2.1.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

quantum of work covered by the unpriced item but also for any increase in the said quantum which may have to be undertaken during the course of the Contract.

A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered or where a word or phrase such as “included” or “provided elsewhere” will be accepted as a rate of nil (R0,00) having been entered against such items and covered by the other prices or rates in the Schedule.

Any work executed to which such a pay item applies, shall be measured under the appropriate items in the Bill of Quantities and valued at a rate of nil (R0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract.

All rates and sums of money quoted in the Bill of Quantities shall be in rands and whole cents. Fractions of a cent shall be discarded.

Should excessively high unit prices be tendered, such prices may be of sufficient importance to warrant rejection of a tender by the Employer

8. The units of measurement described in the Bill of Quantities are metric units. Some of the Abbreviations used in the Bill of Quantities are as follows:

%	=	Per cent
hr	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
kW	=	kilowatt
l	=	litre
L/sum	=	Lump sum
m	=	metre
m ²	=	square metre
km.pass	=	kilometre pass
m ³	=	cubic metre
m ³ .km	=	cubic metre-kilometre
mm	=	millimetre
No.	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional sum
R/only	=	Rate Only
t	=	ton (1000kg)
month	=	per month
t.km	=	ton-kilometre

9. For the purpose of the Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit measurement for each item as defined in the Standard Specification SANS Section 8 of each specification.

C2.1.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C2.1 Pricing Instructions

Quantity:	The number of units for each item
Rate:	The agreed payment per unit of measurement
Amount:	The product of the quantity and the agreed rate for an item
Lump Sum:	An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any quantity

C2.1.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY



TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED
INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER IN SUNDRA & ELOFF

C2.2 BILL OF QUANTITIES

C2.2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

PRELIMINARY AND GENERAL

Item No	Description	Unit	Qty	Rate	Amount (Rand)
1	PRELIMINARY & GENERAL				
1.1	FIXED-CHARGES AND VALUE RELATED ITEMS				
1.1.1	Contractual Requirements	Sum	1.00		
1.2	ESTABLISHMENT OF FACILITIES ON SITE				
	Facilities for the Engineer				
1.2.1	Survey Equipment	Sum	1.00		
1.2.2	Name Board/s	Sum	1.00		
1.2.3	Offices	Sum	1.00		
1.2.4	Carports	Sum	1.00		
1.2.5	Computer	Sum	1.00		
1.2.6	Cellphone	Sum	1.00		
1.2.7	Printer	Sum	1.00		
1.2.8	Wi-Fi complete with Router and SIM Card	Sum	1.00		
	Facilities for the Contractor				
1.2.9	Offices, storage sheds and fencing	Sum	1.00		
1.2.10	Portable Latrines (3No.)	Sum	1.00		
1.2.11	Tools and Equipment	Sum	1.00		
1.2.12	Water Supply	Sum	1.00		
1.2.13	Electric Power	Sum	1.00		
1.2.14	Communications - Cellphones	Sum	1.00		
1.2.15	Access	Sum	1.00		
1.2.16	Other Fixed-charge Obligations	Sum	1.00		
1.2.17	Removal of Site Establishment	Sum	1.00		
1.3	TIME-RELATED ITEMS				
1.3.1	Contractual Requirements	Months	10.00		
	Operation and Maintain of Facilities on site for the Duration of the Construction:				
	Facilities for the Engineer				
1.3.2	Survey Equipment	Months	10.00		
1.3.3	Name Board/s	Months	10.00		
1.3.4	Offices	Months	10.00		
1.3.5	Carports	Months	10.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

PRELIMINARY AND GENERAL

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
1.3.6	Computer	Months	10.00		
1.3.7	Cellphone	Months	10.00		
1.3.8	Printer	Months	10.00		
1.3.9	Wi-Fi complete with Router and SIM Card	Months	10.00		
1.3.10	Survey assistant (approx. 4 hours/ week)	hours	100.00		
Facilities for the Contractor					
1.3.11	Offices and storage sheds	Months	10.00		
1.3.12	Portable latrines (3No.)	Months	10.00		
1.3.13	Tools and equipment	Months	10.00		
1.3.14	Water supplies	Months	10.00		
1.3.15	Electric Power	Months	10.00		
1.3.16	Communications (Cellphones)	Months	10.00		
1.3.17	Access	Months	10.00		
1.3.18	Supervision for Duration of Construction	Months	10.00		
1.3.19	Company and Head Office Overhead Costs for the Duration of the Construction	Sum	1.00		
1.3.20	Survey "as built" position and levels of all new and existing pipelines	Sum	1.00		
1.3.21	Other Time-related Obligations	Months	10.00		
1.4	PROVISIONAL AMOUNTS BY ENGINEER				
1.4.1	Independent testing specified by the Engineer	Prov Sum	1.00	100,000.00	100,000.00
1.4.2	Overheads, Charges and Profit on item above	%	100,000.00		
1.4.3	Survey and prepare "As- built" drawings	Prov Sum	1.00	50,000.00	50,000.00
1.4.4	Overheads, Charges and Profit on item above	%	50,000.00		
1.4.5	Provision for specialist testing, detection and repair of services	Prov Sum	1.00	50,000.00	50,000.00
1.4.6	Overheads, Charges and Profit on item above	%	50,000.00		
1.4.7	Relocation of existing services and fences where ordered by the Engineer	Prov Sum	1.00	20,000.00	20,000.00
1.4.8	Locating existing services, only where ordered by the Engineer	Prov Sum	1.00	25,000.00	25,000.00
1.4.9	Provide water for pipeline testing	Sum	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

PRELIMINARY AND GENERAL

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
1.5	DAYWORKS				
1.5.1	Materials	Prov Sum	1.00	100,000.00	100,000.00
1.5.2	Overheads, Charges and Profit on item above	%	100,000.00		
	Labour				
1.5.3	Skilled	hr	80.00		
1.5.4	Semi-skilled	hr	80.00		
1.5.5	General Labour	hr	80.00		
	Plant and Equipment				
1.5.6	Crawler excavator (70 - 80 kW)	hr	80.00		
1.5.7	Backhoe loader (50 - 60 kW)	hr	80.00		
1.5.8	Walk-behind vibrating roller	hr	80.00		
1.5.9	Compressor (175 cfm), including hoses and breakers	hr	80.00		
1.5.10	Concrete Mixer (150 - 250 litre)	hr	80.00		
1.5.11	Water Pump (75mm), including suction and delivery hoses	hr	80.00		
1.5.12	Tipper trucks (6 m3)	hr	80.00		
1.5.13	1 ton bakkie	hr	80.00		
1.5.14	Plate compactor	hr	80.00		
1.5.15	220 Volt generator	hr	80.00		
1.6	TEMPORARY WORKS				
1.6.1	Deal with traffic and maintain road (or accommodation of traffic)	Sum	1.00		
1.7	HEALTH AND SAFETY:				
	Compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable regulations (Construction Regulations, 2014), and the Employers Health and safety Specification bound into this document				
1.7.1	Preparation of a Health and Safety Plan	Sum	1.00		
1.7.2	Provision of a Health and Safety file	Sum	1.00		
1.7.3	Provision of construction supervisors	Months	10.00		
1.7.4	Provision of a Safety Officer (full-time)	Months	10.00		
1.7.5	Provision of Safety Representatives	Months	10.00		
1.7.6	Health and Safety Training	Sum	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

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Schedule Of Quantities

PRELIMINARY AND GENERAL

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
1.7.7	Provision of personnel protective clothing and equipment (PPE) for the Contractor's site personnel, including labourers, etc	Sum	1.00		
1.7.8	Provision of personnel protective clothing and equipment (PPE) for the Engineer & his staff	Sum	1.00		
1.7.9	Provision of safety fences, signs and barricades	Sum	1.00		
1.7.10	Safety Audit (once a month during construction period)	Months	10.00		
1.8	COMMUNITY LIAISON OFFICER (CLO)				
1.8.1	Community Liaison Officer - Sundra	Months	10.00		
1.8.2	Overheads, Charges and Profit on item above	%			
1.8.3	Community Liaison Officer - Eloff	Months	10.00		
1.8.4	Overheads, Charges and Profit on item above	%			
1.8.5	Community Liaison Officer - Delmas	Months	10.00		
1.8.6	Overheads, Charges and Profit on item above	%			
1.9	SKILLS DEVELOPMENT				
1.9.1	Training of Local labour	Prov Sum	1.00	50,000.00	50,000.00
1.9.2	Overheads, Charges and Profit on item above	%	50,000.00		
1.10	SECURITY GUARDING				
1.10.1	Security Guarding by Registered Guards or by Registered Security Company	Months	10.00		
1.10.2	Overheads, Charges and Profit on item above	%			
1.11	DETECTION OF EXISTING SERVICES				
1.11.1	Supply (or hire) of Specialist Equipment for the detection of underground services	Sum	1.00		
1.11.2	The use of equipment for detection	Sum	1.00		
1.12	STUDENT				
1.12.1	Provision for One Student to undertake training on site for Civil, Electrical, Mechanical, Millwright related activities, Artisan and all inclusive of transport, accommodation, cell and other tools of trad	Months	10.00	12,500.00	125,000.00
1.12.2	Overheads, Charges and Profit on item above	%	125,000.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

				PRIME COST (PC) ITEMS	
Item No	Description	Unit	Qty	Rate	Amount (Rand)
2	PRIME COST (PC) ITEMS				
2.1	NOMINATED SUB-CONTRACTOR BY THE CLIENT				
2.1.1	Supply and Delivery of Non-Revenue Water Specialist Technical Services to be provided by the Sub-Contractor nominated by the Client	PC Sum		2,522,000.00	
2.1.2	Inception	%	2,522,000.00	5.00	126,100.00
2.1.3	Concept and Viability	%	2,522,000.00	25.00	630,500.00
2.1.4	Design Development	%	2,522,000.00	25.00	630,500.00
2.1.5	Documentation and Procurement	%	2,522,000.00	25.00	630,500.00
2.1.6	Contract Administration	%	2,522,000.00	15.00	378,300.00
2.1.7	Close-Out	%	2,522,000.00	5.00	126,100.00
2.1.8	Company and Head Office Overhead Costs	%	2,522,000.00		
2.1.9	Disbursement	PC Sum	1.00	1,423,544.00	1,423,544.00
2.1.10	Company and Head Office Overhead Costs	%	1,423,544.00		
2.2	NOMINATED SUB-CONTRACTOR BY THE CLIENT: OCCUPATIONAL HEALTH & SAFETY SPECIALIST/CONSULTANT				
2.2.1	Supply and Delivery of OHS Specialist nominated by the Client - For the provision for the use by the Employer for an independent health and safety agent for the compilation review and maintenance of Health and Safety Plan including Risk Assessment, Safe work procedures and Method statements including application for the construction work permit	PC Sum	1.00	300,000.00	300,000.00
2.2.2	Remuneration of the Employer's Health and Safety representative	month	10.00	20,000.00	200,000.00
2.2.3	Company and Head Office Overhead Costs	%	500,000.00		
2.3	NOMINATED SUB-CONTRACTOR BY THE CLIENT: ELECTRICAL ENGINEER				
2.3.1	Supply and Delivery of Electrical Engineer nominated by the Client	PC Sum	1.00	250,000.00	250,000.00
2.3.2	Company and Head Office Overhead Costs	%	250,000.00		
2.4	NOMINATED SUB-CONTRACTOR BY THE CLIENT: MECHANICAL ENGINEER				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

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Schedule Of Quantities

PRIME COST (PC) ITEMS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
2.4.1	Supply and Delivery of Mechanical Engineer nominated by the Client	PC Sum	1.00	250,000.00	250,000.00
2.4.2	Allowance for any additional Conformance and Control tests by independent Agent for additional Engineering test, surveys/levels and other verification that may be required by the Employer above all other tests performed	PC Sum	1.00	120,000.00	120,000.00
2.4.3	Company and Head Office Overhead Costs	%	370,000.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

PRESSURE AND FLOW LOGGING

Item No	Description	Unit	Qty	Rate	Amount (Rand)
3	PRESSURE AND FLOW LOGGING				
3.1	PRESSURE & FLOW LOGGING				
3.1.1	Supply and Delivery of Pressure & Flow Logging Specialist to be provided /appointed by the Main Contractor, subject to the approval of the Engineer and the Client	Sum	1.00		
3.1.2	Company and Head Office Overhead Costs	%			
	Identification of Mininum Night Flow (MNF) before the intervention				
3.1.3	Identify the Critical points for logging per DMA (5 DMA's)	Sum	1.00		
3.1.4	Prepare Pressure and Flow Logging schedule per DMA (intermittent supply system)	Sum	1.00		
3.1.5	Install Flow and Pressure Loggers for a minimum of 7 days	Sum	1.00		
3.1.6	Supply Special Security to protect loggers for minimum of 7 days per DMA for 5 DMA's (Days may run concurrently)	Days	14.00		
3.1.7	Assessment of Minimum Night Flow per DMA	Sum	1.00		
	Identification of Mininum Night Flow (MNF) after the intervention i.e. after Leak Repairs				
3.1.8	Identify the Critical points for logging per DMA (5 DMA's)	Sum	1.00		
3.1.9	Prepare Pressure and Flow Logging schedule per DMA for 5 DMA'S (intermittent supply system)	Sum	1.00		
3.1.10	Install Flow and Pressure Loggers for a minimum of 7 days	Sum	1.00		
3.1.11	Supply Special Security to protect loggers for minimum of 7 days per DMA for 5 DMA's (Days may run concurrently)	Days	14.00		
3.1.12	Assessment of Minimum Night Flow per DMA	Sum	1.00		
3.1.13	Prepare Report on Water Savings on the Implemenation of the Project	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

CONSUMER METER AUDIT & REPLACEMENT

Item No	Description	Unit	Qty	Rate	Amount (Rand)
4	CONSUMER METER AUDIT & REPLACEMENT				
4.1	CONSUMER METER AUDIT				
4.1.1	Training of locals on data capture	Sum	1.00		
4.1.2	Attribute data capture on each property - Sundra	No	837.00		
4.1.3	Attribute data capture on each property - Eloff	No	741.00		
4.1.4	Identify consumer meter requiring replacement	Sum	1.00		
4.1.5	Identify consumer meter requiring calibration	Sum	1.00		
4.1.6	Identify new consumer meters	Sum	1.00		
4.2	PREPAID CONSUMER METER				
4.2.1	Supply and Deliver new STS Prepaid Consumer Water Meters, 20mm diameter inlet and outlet connections, including Customer Interface Unit (Keypad)	No	1,500.00		
4.2.2	Supply 20mm diameter male adaptors	No	3,000.00		
4.2.3	Supply 20mm diameter female adaptors	No	3,000.00		
4.2.4	Supply 20mm diameter compression couplings	No	3,000.00		
4.2.5	Supply 20mm diameter elbows	No	3,000.00		
4.2.6	Supply 20mm diameter polycop pipe	m	6,000.00		
4.2.7	Installation of new PREPAID consumer meters - Sundra	No	300.00		
4.2.8	Installation of new PREPAID consumer meters - Eloff	No	200.00		
4.2.9	Installation of new PREPAID consumer meters - Delmas	No	1,000.00		
4.2.10	Decommission old consumer meters - Sundra	No	300.00		
4.2.11	Decommission old consumer meters - Eloff	No	200.00		
4.2.12	Decommission old consumer meters - Delmas	No	1,000.00		
4.3	AUTOMATIC METER READING (AMR)				
4.3.1	AMR Bulk Water System	No	75.00		
	REPLACEMENT - SUPPLY, DELIVERY AND INSTALLATION OF BULK WATER METERS (Incuding Bolts, Nuts, Gaskets and Meter Protector/Covers)				
4.3.2	40mm Bulk Water Meter, PN16	No	2.00		
4.3.3	50mm Bulk Water Meter, PN16	No	12.00		
4.3.4	80mm Bulk Water Meter, PN16	No	1.00		
4.3.5	100mm Bulk Water Meter, PN16	No	2.00		
4.3.6	150mm Bulk Water Meter, PN16	No	1.00		
4.3.7	250mm Bulk Water Meter, PN16	No	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

CONSUMER METER AUDIT & REPLACEMENT

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
4.3.8	Capture Consumer Meter Details and Consumer Details	No	2,000.00		
4.3.9	Cleansing of Municipal Financial Data Base	Sum	1.00		
4.3.10	Company and Head Office Overhead Costs for item above	%			
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: SUNDRA

Item No	Description	Unit	Qty	Rate	Amount (Rand)
5	ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: SUNDRA				
5.1	LEAK REPAIRS - IDENTIFICATION OF LEAK: NETWORK RETICULATION				
5.1.1	Identify leaks per established DMA and quantify	Prov Sum	1.00	100,000.00	100,000.00
5.1.2	Overheads, Charges and Profit on item above	%	100,000.00		
5.2	LEAK REPAIRS - MATERIALS				
5.2.1	Supply and delivery of material for leak repairs	Prov Sum	1.00	150,000.00	150,000.00
5.2.2	Overheads, Charges and Profit on item above	%	150,000.00		
5.2.3	Repair of Leaks on pipes	Prov Sum	1.00	75,000.00	75,000.00
5.2.4	Overheads, Charges and Profit on item above	%	75,000.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: ELOFF

Item No	Description	Unit	Qty	Rate	Amount (Rand)
6	ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: ELOFF				
6.1	LEAK REPAIRS - IDENTIFICATION OF LEAK: NETWORK RETICULATION				
6.1.1	Identify leaks per established DMA and quantify	Prov Sum	1.00	100,000.00	100,000.00
6.1.2	Overheads, Charges and Profit on item above	%	100,000.00		
6.2	LEAK REPAIRS - MATERIALS				
6.2.1	Supply and delivery of material for leak repairs	Prov Sum	1.00	150,000.00	150,000.00
6.2.2	Overheads, Charges and Profit on item above	%	150,000.00		
6.2.3	Repair of Leaks on pipes	Prov Sum	1.00	75,000.00	75,000.00
6.2.4	Overheads, Charges and Profit on item above	%	75,000.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

PUMPING MAIN - FROM SUNDRA TO ELOFF

Item No	Description	Unit	Qty	Rate	Amount (Rand)
7	PUMPING MAIN - FROM SUNDRA TO ELOFF				
7.1	PUMPING MAIN - FROM SUNDRA TO ELOFF				
7.2	350MM DIAMETER UPVC PIPELINE				
7.3	EARTHWORKS (PIPE TRENCHES EXCAVATION) Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: up to 110mm diam. for total trench depth :				
7.3.1	not exceeding 1,5 m	m ³	3,150.00		
7.4	PROVISION OF BEDDING Available from trench				
7.4.1	a) Selected granular material	m ³	1,050.00		
7.4.2	b) Selected fill material	m ³	2,100.00		
	uPVC Pressure Pipes and Fittings Supplying and Delivery of water pipes: Class 9 PVC pipes, SABS 966: 1998 Part 1 (uPVC)				
7.4.3	350mm dia Laying and jointing of water pipes on bedding as shown on Drawing (including testing and sterilizing /disinfecting) irrespective of depth : Class 9 PVC pipes, SABS 966: 1998 Part 1 (uPVC)	m	2,100.00		
7.4.4	350mm dia	m	2,100.00		
7.5	AIR VALVES (DWG NO. P24430-500-004)				
7.5.1	Construction of Air Valve Chambers, complete as indicated on the Drawing Supply, delivery and Installation of the following items:	No	4.00		
7.5.2	50mm diameter Spigot	No	4.00		
7.5.3	50mm Air valve	No	4.00		
7.5.4	50mm diameter RSV Isolating Valve	No	4.00		
7.5.5	350mm x 50mm diameter Reducer	No	4.00		
7.5.6	350mm diameter Flanged T-piece	No	4.00		
7.5.7	350mm diameter Flanged Steel-uPVC Flanged Adaptor	No	8.00		
7.6	DECOMMISSIONING OF EXISTING PIPELINE Decommissioning of existing pipeline, as indicated on the Drawing(s) of DMA (Length = +-2100m)				
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
8	DMA 1 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
	DMA 1 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
8.1	ESTABLISHMENT OF DISTRICT METERED AREA AND PRESSURE MANAGEMENT ZONE				
8.1.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	9.00		
8.2	BOUNDARY VALVES - SUPPLY AND DELIVER				
8.2.1	Supply and deliver 75mm diameter Boundary (Isolating) Valves, with Captop	No	5.00		
8.2.2	Supply and deliver reducers/couplings for 75mm Boundary (Isolating) Valves, with Captop as indicated on the drawing	No	10.00		
8.3	CAST IRON VALVE BOX / PLASTIC VALVE BOX (SEE DWG NO. P24430-500-005)				
8.3.1	Supply and deliver 160mm diameter uPVC pipeline as indicated on the drawing	m	12.00		
8.3.2	Supply and deliver 175mm x 115mm Cast Iron Valve Box / Plastic Valve Box as indicated on the drawing	No	5.00		
8.4	BOUNDARY VALVES - INSTALLATION				
8.4.1	Install flanged, anti clockwise closing "RSV" Valves to fit existing pipes, as indicate on Drawing, complete with Cast Iron Valve Box / Plastic Valve Box, 200mm uPVC pipe, 160mm uPVC pipe, bricks, concrete collar, etc	No	5.00		
8.5	100MM MAGFLOW ZONAL WATER METER CHAMBER				
	Cost of Survey				
8.5.1	Survey and setting out the works	Sum	1.00		
	Water Control				
8.5.2	Special water control, including pump hire	Sum	1.00		
8.6	EARTHWORKS (SMALL WORKS)				
	Excavation:				
8.6.1	Excavation in all material and dispose	m ³	37.40		
8.7	CONCRETE (STRUCTURAL)				
8.8	SCHEDULED FORMWORK				
	Rough:				
8.8.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
	Smooth:				
8.8.2	Vertical plane internal walls	m ²	20.00		
8.8.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
8.8.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
8.8.5	1) - 0,5 m deep	Sum	1.00		
8.9	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
8.9.1	High tensile steel bars	t	1.15		
8.9.2	Mild steel bars	t			Rate Only
8.9.3	High-tensile welded mesh	t			Rate Only
8.10	SCHEDULED CONCRETE ITEMS				
8.10.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
8.10.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
8.10.3	To top of chamber floor slabs	m ²			Rate Only
8.10.4	To top of chamber roof	m ²			Rate Only
8.10.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
8.10.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
8.10.7	plinths and thrust blocks of various sizes	m ³			Rate Only
8.11	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY: CHAMBER NUMBER 1</u>				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
8.11.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
8.11.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
8.11.3	Step Irons installed complete as indicated on the drawings	No	1.00		
8.11.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
8.12	CHAMBER ACCESS AND VENTILATION - INSTALLATION				
8.12.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
8.12.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
8.12.3	Step Irons installed complete as indicated on the drawings	No	1.00		
8.12.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
8.13	100MM MAGFLOW WATER METER - ZONAL METER PIPE FITTINGS AND SPECIALS (SEE DWG NO. P24430-400-001)				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
8.13.1	Item 1 - 100mm diameter AC-STEEL step coupling/reducer	No	2.00		
8.13.2	Item 2 - 100mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
8.13.3	Item 3 - 100mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
8.13.4	Item 4 - 100mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
8.13.5	Item 5 - 100mm diameter MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
8.13.6	Item 6 - 100mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
8.13.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
8.13.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
8.13.9	Item C - 100mm x 50mm Steel reducer, both ends flanged	No	1.00		
8.13.10	Assembly and Installation of Items above	Sum	1.00		
8.14	MARKING OF CHAMBERS				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 1 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
8.14.1	Marking of Chambers with names and numbers	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
9	DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS				
9.1	DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS				
9.1.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	2.00		
9.2	150MM MAGFLOW WATER METER CHAMBER - BULK METER ON THE 200AC PIPELINE - SUNDRA RESERVOIR COMPLEX (SEE DWG P24430-400-002)				
	Cost of Survey				
9.2.1	Survey and setting out the works	Sum	1.00		
	Water Control				
9.2.2	Special water control, including pump hire	Sum	1.00		
9.3	EARTHWORKS (SMALL WORKS)				
	Excavation:				
9.3.1	Excavation in soft material and dispose within free-haul distance	m ³	37.40		
9.3.2	Excavation in intermediate material and dispose within free-haul distance	m ³			Rate Only
9.3.3	Excavation in hard rock and dispose within free-haul	m ³			Rate Only
9.4	CONCRETE (STRUCTURAL)				
9.5	SCHEDULED FORMWORK				
	Rough:				
9.5.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
	Smooth:				
9.5.2	Vertical plane internal walls	m ²	20.00		
9.5.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
9.5.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.5.5	Over and up to and including 1) - 0,5 m deep	Sum	1.00		
9.6	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
9.6.1	High tensile steel bars	t	1.15		
9.6.2	Mild steel bars	t			Rate Only
9.6.3	High-tensile welded mesh	t			Rate Only
9.7	SCHEDULED CONCRETE ITEMS				
9.7.1	Blinding layer in class 15/19 concrete (50mm thick)	m³	0.58		
	Strength Concrete:				
9.7.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m³	9.50		
	Unformed surface finishes				
9.7.3	To top of chamber floor slabs	m²			Rate Only
9.7.4	To top of chamber roof	m²			Rate Only
9.7.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
9.7.6	screed to fall or (water proofing) on roof slab	m²			Rate Only
9.7.7	plinths and thrust blocks of various sizes	m³			Rate Only
9.8	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY</u>				
9.8.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.8.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.8.3	Step Irons installed complete as indicated on the drawings	No	1.00		
9.8.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.9	<u>CHAMBER ACCESS AND VENTILATION - INSTALLATION</u>				
9.9.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.9.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.9.3	Step Irons installed complete as indicated on the drawings	No	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.9.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.10	150MM MAGFLOW WATER METER - BULK METER PIPE FITTINGS AND SPECIALS (SEE DWG NO. P24430-400-002)				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
9.10.1	Item 1 - 150mm diameter AC-STEEL step coupling/reducer	No	2.00		
9.10.2	Item 2 - 150mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
9.10.3	Item 3 - 150mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
9.10.4	Item 4 - 150mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
9.10.5	Item 5 - 150mm diameter MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
9.10.6	Item 6 - 150mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
9.10.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
9.10.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
9.10.9	Item C - 150mm x 50mm Steel reducer, both ends flanged	No	1.00		
9.10.10	Assembly and Installation of Items above	Sum	1.00		
9.11	100MM MAGFLOW WATER METER CHAMBER <u>ON THE 150MM AC PIPELINE</u> - BULK METER CHAMBER (SUNDRA RESERVOIR COMPLEX), SEE DRAWING NO P24430-400-001				
	Cost of Survey				
9.11.1	Survey and setting out the works	Sum	1.00		
	Water Control				
9.11.2	Special water control, including pump hire	Sum	1.00		
9.12	EARTHWORKS (SMALL WORKS)				
	Excavation:				
9.12.1	Excavation in all material and dispose	m ³	37.40		
9.13	CONCRETE (STRUCTURAL)				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.14	SCHEDULED FORMWORK				
	Rough:				
9.14.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
	Smooth:				
9.14.2	Vertical plane internal walls	m ²	20.00		
9.14.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
9.14.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
9.14.5	1) - 0,5 m deep	Sum	1.00		
9.15	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
9.15.1	High tensile steel bars	t	1.15		
9.15.2	Mild steel bars	t			Rate Only
9.15.3	High-tensile welded mesh	t			Rate Only
9.16	SCHEDULED CONCRETE ITEMS				
9.16.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
9.16.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
9.16.3	To top of chamber floor slabs	m ²			Rate Only
9.16.4	To top of chamber roof	m ²			Rate Only
9.16.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.16.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
9.16.7	plinths and thrust blocks of various sizes	m ³			Rate Only
9.17	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY</u>				
9.17.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.17.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.17.3	Step Irons installed complete as indicated on the drawings	No	1.00		
9.17.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.18	<u>CHAMBER ACCESS AND VENTILATION - INSTALLATION</u>				
9.18.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.18.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.18.3	Step Irons installed complete as indicated on the drawings	No	1.00		
9.18.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.19	<u>100MM MAGFLOW WATER METER - BULK METER PIPE FITTINGS AND SPECIALS (SEE DWG P24430-400-001)</u>				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
9.19.1	Item 1 - 100mm diameter step AC-STEEL coupling/reducer	No	2.00		
9.19.2	Item 2 - 100mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
9.19.3	Item 3 - 100mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
9.19.4	Item 4 - 100mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
9.19.5	Item 5 - 100mm diameter MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
9.19.6	Item 6 - 100mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
9.19.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.19.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
9.19.9	Item C - 100mm x 50mm Steel reducer, both ends flanged	No	1.00		
9.19.10	Assembly and Installation of Items above	Sum	1.00		
9.20	<u>150MM LEVEL CONTROL CHAMBER - CONCRETE RESERVOIR INLET 1</u>				
	Cost of Survey				
9.20.1	Survey and setting out the works	Sum	1.00		
	Water Control				
9.20.2	Special water control, including pump hire	Sum	1.00		
9.21	EARTHWORKS (SMALL WORKS)				
	Excavation:				
9.21.1	Excavation in all material and dispose	m ³	37.40		
9.22	CONCRETE (STRUCTURAL)				
9.23	SCHEDULED FORMWORK				
	Rough:				
9.23.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
	Smooth:				
9.23.2	Vertical plane internal walls	m ²	20.00		
9.23.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
9.23.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
9.23.5	1) - 0,5 m deep	Sum	1.00		
9.24	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.24.1	High tensile steel bars	t	1.15		
9.24.2	Mild steel bars	t			Rate Only
9.24.3	High-tensile welded mesh	t			Rate Only
9.25	SCHEDULED CONCRETE ITEMS				
9.25.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
9.25.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
9.25.3	To top of chamber floor slabs	m ²			Rate Only
9.25.4	To top of chamber roof	m ²			Rate Only
9.25.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
9.25.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
9.25.7	plinths and thrust blocks of various sizes	m ³			Rate Only
9.26	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, DELIVERY AND INSTALLATION:</u>				
9.26.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.26.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.26.3	Step Irons installed complete as indicated on the drawings	No	1.00		
9.26.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.27	150MM LEVEL CONTROL VALVE ON THE CONCRETE RESERVOIR INLET 1 - PIPE FITTINGS AND SPECIALS				
	Supply & Deliver of the following items as indicated on the Drawing:				
9.27.1	Item 1 - 150mm diameter step coupling/reducer	No	2.00		
9.27.2	Item 2 - 150mm diameter Mild Steel Pipe with puddle flange, plain one end, flanged the other to SABS 1123 - 1600/3	No	2.00		
9.27.3	Item 3 - 150mm diameter RSV Gate Valve (PN16) with Handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 - 1600/3	No	2.00		
9.27.4	Item 4 - 150mm MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
Total Carried Forward					

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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.27.5	Item 5 - 150mm diameter LEVEL CONTROL VALVE (including Auxilliary Pipework with Copper Tubing, Float Control Pilot and Stilling Well, etc and Commissioning by the Specialist), both ends flanged to SABS 1123 - 1600/3	No	1.00		
9.27.6	Item 6 - 150mm Mild steel pipe, plain one end, flanged the other	No	1.00		
9.27.7	Item 7 - 150mm Mild steel pipe, plain one end, flanged the other	No	1.00		
9.27.8	Item 8 - 150mm x 90 degree bends	No	1.00		
9.27.9	Assembly and Installation of Items above	Sum	1.00		
9.28	<u>200MM LEVEL CONTROL CHAMBER - CONCRETE RESERVOIR INLET 2</u>				
	Cost of Survey				
9.28.1	Survey and setting out the works	Sum	1.00		
	Water Control				
9.28.2	Special water control, including pump hire	Sum	1.00		
9.29	EARTHWORKS (SMALL WORKS)				
	Excavation:				
9.29.1	Excavation in all material and dispose	m ³	37.40		
9.30	CONCRETE (STRUCTURAL)				
9.31	SCHEDULED FORMWORK				
	Rough:				
9.31.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
	Smooth:				
9.31.2	Vertical plane internal walls	m ²	20.00		
9.31.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
9.31.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
Total Carried Forward					

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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.31.5	1) - 0,5 m deep	Sum	1.00		
9.32	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
9.32.1	High tensile steel bars	t	1.15		
9.32.2	Mild steel bars	t			Rate Only
9.32.3	High-tensile welded mesh	t			Rate Only
9.33	SCHEDULED CONCRETE ITEMS				
9.33.1	Blinding layer in class 15/19 concrete (50mm thick)	m³	0.58		
	Strength Concrete:				
9.33.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m³	9.50		
	Unformed surface finishes				
9.33.3	To top of chamber floor slabs	m²			Rate Only
9.33.4	To top of chamber roof	m²			Rate Only
9.33.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
9.33.6	screed to fall or (water proofing) on roof slab	m²			Rate Only
9.33.7	plinths and thrust blocks of various sizes	m³			Rate Only
9.34	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, DELIVERY AND INSTALLATION:</u>				
9.34.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
9.34.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
9.34.3	Step Irons installed complete as indicated on the drawings	No	1.00		
9.34.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
9.35	200MM LEVEL CONTROL VALVE ON THE CONCRETE RESERVOIR INLET 2 - PIPE FITTINGS AND SPECIALS				
	Supply & Deliver of the following items as indicated on the Drawing:				
9.35.1	Item 1 - 200mm diameter step coupling/reducer	No	2.00		
9.35.2	Item 2 - 200mm diameter Mild Steel Pipe with puddle flange, plain one end, flanged the other to SABS 1123 - 1600/3	No	2.00		
Total Carried Forward					

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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
9.35.3	Item 3 - 200mm diameter RSV Gate Valve (PN16) with Handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 - 1600/3	No	2.00		
9.35.4	Item 4 - 200mm MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
9.35.5	Item 5 - 200mm diameter LEVEL CONTROL VALVE (including Auxilliary Pipework with Copper Tubing, Float Control Pilot and Stilling Well, etc and Commissioning by the Specialist), both ends flanged to SABS 1123 - 1600/3	No	1.00		
9.35.6	Assembly and Installation of Items above	Sum	1.00		
9.36	MARKING OF CHAMBERS				
9.36.1	Marking of Chambers with names and numbers	Sum	1.00		
9.36.2	Item 6 - 150mm x 90 Degree Mild Steel Bend	No	2.00		
Total Carried Forward To Summary					

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Schedule Of Quantities

DMA 1 - SUNDRA RESERVOIR COMPLEX: PUMPSTATION

Item No	Description	Unit	Qty	Rate	Amount (Rand)
10	DMA 1 - SUNDRA RESERVOIR COMPLEX: PUMPSTATION				
10.1	Repair of Sundra Pump Station Supply and Delivery Pump Station Repair Specialist to be provided /appointed by the Main Contractor, subject to the approval of the Engineer and the Client. The repair shall include, but is not to the following: Install new 3 pumps and motors Install new Electrical Panel Install new Handrail Clean the inside of the Pumpstation	PC Sum	1.00		
10.2	Overheads, Charges and Profit on item above	%	1,250,000.00		
Total Carried Forward To Summary					

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Schedule Of Quantities

DMA 2 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
11	DMA 2 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
	DMA 2 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
11.1	ESTABLISHMENT OF DISTRICT METERED AREA AND PRESSURE MANAGEMENT ZONE				
11.1.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	9.00		
11.2	BOUNDARY VALVES - SUPPLY AND DELIVER				
11.2.1	Supply and deliver 75mm diameter Boundary (Isolating) Valves, with Captop	No	8.00		
11.2.2	Supply and deliver reducers/couplings for 75mm Boundary (Isolating) Valves, with Captop as indicated on the drawing	No	16.00		
11.3	CAST IRON VALVE BOX / PLASTIC VALVE BOX (SEE DWG NO. P24430-500-005)				
11.3.1	Supply and deliver 160mm diameter uPVC pipeline as indicated on the drawing	m	24.00		
11.3.2	Supply and deliver 175mm x 115mm Cast Iron Valve Box / Plastic Valve Box as indicated on the drawing	No	8.00		
11.4	BOUNDARY VALVES - INSTALLATION				
11.4.1	Install flanged, anti clockwise closing "RSV" Valves to fit existing pipes, as indicate on Drawing, complete with Cast Iron Valve Box / Plastic Valve Box, 200mm uPVC pipe, 160mm uPVC pipe, bricks, concrete collar, etc	No	8.00		
11.5	100MM MAGFLOW ZONAL WATER METER CHAMBER				
	Cost of Survey				
11.5.1	Survey and setting out the works	Sum	1.00		
	Water Control				
11.5.2	Special water control, including pump hire	Sum	1.00		
11.6	EARTHWORKS (SMALL WORKS)				
	Excavation:				
11.6.1	Excavation in all material and dispose	m ³	37.40		
11.7	CONCRETE (STRUCTURAL)				
11.8	SCHEDULED FORMWORK				
	Rough:				
11.8.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 2 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
	Smooth:				
11.8.2	Vertical plane internal walls	m ²	20.00		
11.8.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
11.8.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
11.8.5	1) - 0,5 m deep	Sum	1.00		
11.9	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
11.9.1	High tensile steel bars	t	1.15		
11.9.2	Mild steel bars	t			Rate Only
11.9.3	High-tensile welded mesh	t			Rate Only
11.10	SCHEDULED CONCRETE ITEMS				
11.10.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
11.10.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
11.10.3	To top of chamber floor slabs	m ²			Rate Only
11.10.4	To top of chamber roof	m ²			Rate Only
11.10.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
11.10.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
11.10.7	plinths and thrust blocks of various sizes	m ³			Rate Only
11.11	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY: CHAMBER NUMBER 1</u>				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 2 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
11.11.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
11.11.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
11.11.3	Step Irons installed complete as indicated on the drawings	No	1.00		
11.11.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
11.12	CHAMBER ACCESS AND VENTILATION - INSTALLATION				
11.12.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
11.12.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
11.12.3	Step Irons installed complete as indicated on the drawings	No	1.00		
11.12.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
11.13	100MM MAGFLOW WATER METER - ZONAL METER PIPE FITTINGS AND SPECIALS (SEE DWG NO. P24430-400-001)				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
11.13.1	Item 1 - 100mm diameter AC-STEEL step coupling/reducer	No	2.00		
11.13.2	Item 2 - 100mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
11.13.3	Item 3 - 100mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
11.13.4	Item 4 - 100mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
11.13.5	Item 5 - 100mm diameter MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
11.13.6	Item 6 - 100mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
11.13.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
11.13.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
11.13.9	Item C - 100mm x 50mm Steel reducer, both ends flanged	No	1.00		
11.13.10	Assembly and Installation of Items above	Sum	1.00		
11.14	MARKING OF CHAMBERS				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 2 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
11.14.1	Marking of Chambers with names and numbers	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 3 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
12	DMA 3 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
	DMA 3 - SUNDRA ESTABLISHMENT OF DMA's AND PMA's				
12.1	ESTABLISHMENT OF DISTRICT METERED AREA AND PRESSURE MANAGEMENT ZONE				
12.1.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	6.00		
12.2	BOUNDARY VALVES - SUPPLY AND DELIVER				
12.2.1	Supply and deliver 75mm diameter Boundary (Isolating) Valves, with Captop	No	5.00		
12.2.2	Supply and deliver reducers/couplings for 75mm Boundary (Isolating) Valves, with Captop as indicated on the drawing	No	10.00		
12.3	CAST IRON VALVE BOX / PLASTIC VALVE BOX (SEE DWG NO. P24430-500-005)				
12.3.1	Supply and deliver 160mm diameter uPVC pipeline as indicated on the drawing	m	12.00		
12.3.2	Supply and deliver 175mm x 115mm Cast Iron Valve Box / Plastic Valve Box as indicated on the drawing	No	5.00		
12.4	BOUNDARY VALVES - INSTALLATION				
12.4.1	Install flanged, anti clockwise closing "RSV" Valves to fit existing pipes, as indicate on Drawing, complete with Cast Iron Valve Box / Plastic Valve Box, 200mm uPVC pipe, 160mm uPVC pipe, bricks, concrete collar, etc	No	5.00		
12.5	100MM MAGFLOW ZONAL WATER METER CHAMBER				
	Cost of Survey				
12.5.1	Survey and setting out the works	Sum	1.00		
	Water Control				
12.5.2	Special water control, including pump hire	Sum	1.00		
12.6	EARTHWORKS (SMALL WORKS)				
	Excavation:				
12.6.1	Excavation in all material and dispose	m ³	37.40		
12.7	CONCRETE (STRUCTURAL)				
12.8	SCHEDULED FORMWORK				
	Rough:				
12.8.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m ²	28.82		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

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Schedule Of Quantities

DMA 3 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
	Smooth:				
12.8.2	Vertical plane internal walls	m ²	20.00		
12.8.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
12.8.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
12.8.5	1) - 0,5 m deep	Sum	1.00		
12.9	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
12.9.1	High tensile steel bars	t	1.15		
12.9.2	Mild steel bars	t			Rate Only
12.9.3	High-tensile welded mesh	t			Rate Only
12.10	SCHEDULED CONCRETE ITEMS				
12.10.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
12.10.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
12.10.3	To top of chamber floor slabs	m ²			Rate Only
12.10.4	To top of chamber roof	m ²			Rate Only
12.10.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
12.10.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
12.10.7	plinths and thrust blocks of various sizes	m ³			Rate Only
12.11	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY</u>				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

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Schedule Of Quantities

DMA 3 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
12.11.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
12.11.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
12.11.3	Step Irons installed complete as indicated on the drawings	No	1.00		
12.11.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
12.12	CHAMBER ACCESS AND VENTILATION - INSTALLATION				
12.12.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
12.12.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
12.12.3	Step Irons installed complete as indicated on the drawings	No	1.00		
12.12.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
12.13	100MM MAGFLOW WATER METER - ZONAL METER PIPE FITTINGS AND SPECIALS (SEE DWG NO. P24430-400-001)				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
12.13.1	Item 1 - 100mm diameter AC-STEEL step coupling/reducer	No	2.00		
12.13.2	Item 2 - 100mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
12.13.3	Item 3 - 100mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
12.13.4	Item 4 - 100mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
12.13.5	Item 5 - 100mm diameter MS Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
12.13.6	Item 6 - 100mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
12.13.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
12.13.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
12.13.9	Item C - 100mm x 50mm Steel reducer, both ends flanged	No	1.00		
12.13.10	Assembly and Installation of Items above	Sum	1.00		
12.14	MARKING OF CHAMBERS				
Total Carried Forward					

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Schedule Of Quantities

DMA 3 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
12.14.1	Marking of Chambers with names and numbers	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
13	DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE				
13.1	DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE				
13.2	ESTABLISHMENT OF DISTRICT METERED AREA AND PRESSURE MANAGEMENT ZONE				
13.2.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	11.00		
13.3	BOUNDARY VALVES - SUPPLY AND DELIVER				
13.3.1	Supply and deliver 75mm diameter Boundary (Isolating) Valves, with Captop	No	9.00		
13.3.2	Supply and deliver reducers/couplings for 75mm Boundary (Isolating) Valves, with Captop as indicated on the drawing	No	18.00		
13.4	CAST IRON VALVE BOX / PLASTIC VALVE BOX (SEE DWG NO. P24430-500-005)				
13.4.1	Supply and deliver 160mm diameter uPVC pipeline as indicated on the drawing	m	24.00		
13.4.2	Supply and deliver 175mm x 115mm Cast Iron Valve Box / Plastic Valve Box as indicated on the drawing	No	9.00		
13.5	BOUNDARY VALVES - INSTALLATION				
13.5.1	Install flanged, anti clockwise closing "RSV" Valves to fit existing pipes, as indicate on Drawing, complete with Cast Iron Valve Box / Plastic Valve Box, 200mm uPVC pipe, 160mm uPVC pipe, bricks, concrete collar, etc	No	9.00		
13.6	200MM MAGFLOW WATER METER CHAMBER - ZONE METER (SEE DWGT P24430-400-003)				
	Cost of Survey				
13.6.1	Survey and setting out the works	Sum	1.00		
	Water Control				
13.6.2	Special water control, including pump hire	Sum	1.00		
13.7	EARTHWORKS (SMALL WORKS)				
	Excavation:				
13.7.1	Excavation in all material and dispose	m³	37.40		
13.8	CONCRETE (STRUCTURAL)				
13.9	SCHEDULED FORMWORK				
	Rough:				
13.9.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m²	28.82		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
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Schedule Of Quantities

DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
	Smooth:				
13.9.2	Vertical plane internal walls	m ²	20.00		
13.9.3	Horizontal plane to roof slab soffit of chambers	m ²	6.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
13.9.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
13.9.5	1) - 0,5 m deep	Sum	1.00		
13.10	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
13.10.1	High tensile steel bars	t	1.15		
13.10.2	Mild steel bars	t			Rate Only
13.10.3	High-tensile welded mesh	t			Rate Only
13.11	SCHEDULED CONCRETE ITEMS				
13.11.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.58		
	Strength Concrete:				
13.11.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	9.50		
	Unformed surface finishes				
13.11.3	To top of chamber floor slabs	m ²			Rate Only
13.11.4	To top of chamber roof	m ²			Rate Only
13.11.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
13.11.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
13.11.7	plinths and thrust blocks of various sizes	m ³			Rate Only
13.12	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY: CHAMBER NUMBER 1</u>				
Total Carried Forward					

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Schedule Of Quantities

DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
13.12.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
13.12.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
13.12.3	Step Irons installed complete as indicated on the drawings	No	1.00		
13.12.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
13.13	<u>CHAMBER ACCESS AND VENTILATION - INSTALLATION: CHAMBER 1</u>				
13.13.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
13.13.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
13.13.3	Step Irons installed complete as indicated on the drawings	No	1.00		
13.13.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
13.14	<u>200MM MAGFLOW WATER METER - ZONE METER PIPE SPECIALS & FITTINGS</u>				
	Supply & Delivery of Pipe Specials and Fittings as indicated on the drawings				
13.14.1	Item 1 - 200mm diameter step coupling/reducer	No	2.00		
13.14.2	Item 2 - 200mm diameter MS Pipe with puddle flange, plain one and flanged the other	No	1.00		
13.14.3	Item 3 - 200mm diameter MS Tee-piece, both ends flanged to SABS 1123 - 1600/3	No	1.00		
13.14.4	Item 4 - 200mm diameter RSV Gate Valve (PN16) with handwheel	No	2.00		
13.14.5	Item 5 - 200mm diameter MS Pipe, both ends flanged	No	2.00		
13.14.6	Item 6 - 200mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged	No	1.00		
13.14.7	Item A - 50mm diameter Air Release and Vacuum Breaker Valve, flanged, as per Specification	No	1.00		
13.14.8	Item B - 50mm diameter RSV gate valve (PN16) with handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 1600/3.	No	1.00		
13.14.9	Item C - 200mm x 50mm Steel reducer, both ends flanged	No	1.00		
13.14.10	Assembly and Installation of Items above	Sum	1.00		
13.15	MARKING OF CHAMBERS				
Total Carried Forward					

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Schedule Of Quantities

DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
13.15.1	Marking of Chambers with names and numbers	Sum	1.00		
Total Carried Forward To Summary					

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DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
14	DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE				
14.1	DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE				
14.2	ESTABLISHMENT OF DISTRICT METERED AREA AND PRESSURE MANAGEMENT ZONE				
14.2.1	Excavate and/or Expose existing services and determine the size of existing pipes as indicated on the Layout Plans (Engineer/Main Contractor to indicate, verify and confirm together with the Special Workman areas to be worked on)	No	11.00		
14.3	BOUNDARY VALVES - SUPPLY AND DELIVER				
14.3.1	Supply and deliver 75mm diameter Boundary (Isolating) Valves, with Captop	No	9.00		
14.3.2	Supply and deliver reducers/couplings for 75mm Boundary (Isolating) Valves, with Captop as indicated on the drawing	No	18.00		
14.4	CAST IRON VALVE BOX / PLASTIC VALVE BOX (SEE DWG NO. P24430-500-005)				
14.4.1	Supply and deliver 160mm diameter uPVC pipeline as indicated on the drawing	m	24.00		
14.4.2	Supply and deliver 175mm x 115mm Cast Iron Valve Box / Plastic Valve Box as indicated on the drawing	No	9.00		
14.5	BOUNDARY VALVES - INSTALLATION				
14.5.1	Install flanged, anti clockwise closing "RSV" Valves to fit existing pipes, as indicate on Drawing, complete with Cast Iron Valve Box / Plastic Valve Box, 200mm uPVC pipe, 160mm uPVC pipe, bricks, concrete collar, etc	No	9.00		
14.6	<u>80MM PRESSURE REDUCING VALVE WITH TIME MODULATED CONTROLLER (SEE DWG P24430-200-001)</u>				
	Cost of Survey				
14.6.1	Survey and setting out the works	Sum	1.00		
	Water Control				
14.6.2	Special water control, including pump hire	Sum	1.00		
14.7	EARTHWORKS (SMALL WORKS)				
	Excavation:				
14.7.1	Excavation in all material and dispose	m³	50.15		
14.8	CONCRETE (STRUCTURAL)				
14.9	SCHEDULED FORMWORK				
	Rough:				
14.9.1	Rough vertical planes to walls and footings of chamber and sumps below ground	m²	32.12		
Total Carried Forward					

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Schedule Of Quantities

DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
	Smooth:				
14.9.2	Vertical plane internal walls	m ²	26.00		
14.9.3	Horizontal plane to roof slab soffit of chambers	m ²	9.00		
	Box Out Holes / Form Voids				
	a) Small circular of diameter up to and including 0,65m (boxing of roof vents)				
	Over and up to and including				
14.9.4	1) - 0,5 m deep	Sum	1.00		
	b) Large, other than circular, of area over 0,1 m2 and up and including to 1,5 m2 (boxing of roof manhole cover & sump in sump)				
	Over and up to and including				
14.9.5	1) - 0,5 m deep	Sum	1.00		
14.10	SCHEDULED REINFORCEMENT ITEMS				
	Steel bars:				
14.10.1	High tensile steel bars	t	1.48		
14.10.2	Mild steel bars	t			Rate Only
14.10.3	High-tensile welded mesh	t			Rate Only
14.11	SCHEDULED CONCRETE ITEMS				
14.11.1	Blinding layer in class 15/19 concrete (50mm thick)	m ³	0.81		
	Strength Concrete:				
14.11.2	Grade 25/19 concrete for floor slabs, walls and roof slabs of chambers	m ³	12.74		
	Unformed surface finishes				
14.11.3	To top of chamber floor slabs	m ²			Rate Only
14.11.4	To top of chamber roof	m ²			Rate Only
14.11.5	Grouting of pipes / specials through walls	No	2.00		
	Miscellaneous				
	Supply and install as detailed on drawings				
14.11.6	screed to fall or (water proofing) on roof slab	m ²			Rate Only
14.11.7	plinths and thrust blocks of various sizes	m ³			Rate Only
14.12	<u>CHAMBER ACCESS AND VENTILATION - SUPPLY, AND DELIVERY</u>				
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
14.12.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
14.12.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
14.12.3	Step Irons installed complete as indicated on the drawings	No	1.00		
14.12.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
14.13	CHAMBER ACCESS AND VENTILATION - INSTALLATION				
14.13.1	Manhole Concrete Cover (900 x 900) and Steel frame for chamber access complete with locking mechanism	No	1.00		
14.13.2	Hot dipped galvanised roof ventilators to the chamber roof as detailed on the drawings	No	1.00		
14.13.3	Step Irons installed complete as indicated on the drawings	No	1.00		
14.13.4	Hot dip galvanised internal sump cover frame and grating	No	1.00		
14.14	80MM PRESSURE REDUCING VALVE WITH TIME MODULATED CONTROLLER - PIPE FITTINGS AND SPECIALS				
	Supply, delivery and installation of the following items as indicated on the Drawing:				
14.14.1	Item 1 - 80mm diameter step coupling/reducer	No	2.00		
14.14.2	Item 2 - 80mm diameter Mild Steel Pipe with puddle flange, plain one end, flanged the other to SABS 1123 - 1600/3	No	2.00		
14.14.3	Item 3 - 80mm diameter mild steel tee-piece, both ends flanged to SABS 1123 - 1600/3	No	3.00		
14.14.4	Item 4 - 80mm diameter Mild Steel Pipe, both ends flanged to SABS 1123 - 1600/3	No	5.00		
14.14.5	Item 4A - 80mm x 50mm diameter Mild Steel Pipe reducer, both ends flanged to SABS 1123 - 1600/3	No	1.00		
14.14.6	Item 4B - 80mm diameter Mild Steel Pipe, both ends flanged to SABS 1123 - 1600/3	No	2.00		
14.14.7	Item 5 - 80mm diameter RSV Gate Valve (PN16) with Handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 - 1600/3	No	3.00		
14.14.8	Item 5A - 50mm diameter RSV Gate Valve (PN16) with Handwheel and anti-clockwise closing to SABS 664, both ends flanged to SABS 1123 - 1600/3	No	1.00		
14.14.9	Item 6 - 80mm diameter STRAINER, both ends flanged to SABS 1123 - 1600/3	No	1.00		
14.14.10	Item 7 - 80mm diameter PRESSURE REDUCING VALVE, both ends flanged to SABS 1123 - 1600/3	No	1.00		
Total Carried Forward					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
Brought Forward					
14.14.11	Item 8 - 80mm diameter MAGFLOW Water Meter, Battery Operated (Comprising of Flow Sensor and Converter, Remote Mount, Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Pressure Sensor , Grounding Rings, Mating Flanges, bolts and Gaskets, etc. & Commissioning by the Specialist), both ends flanged to SABS 1123 - 1600/3	No	1.00		
14.14.12	Item 9 - 80mm diameter x 90 degree bend, both ends flanged to SABS 1123 - 1600/3	No	2.00		
14.14.13	Item 10 - 80mm diameter Mild Steel Pipe, both ends flanged to SABS 1123 - 1600/3	No	1.00		
14.14.14	Item 11 - 80mm diameter Mild Steel Pipe, plain one end, flanged the other to SABS 1123 - 1600/3	No	1.00		
14.14.15	Item 12 - 80mm "Viking Johnson" flange adaptor	No	1.00		
14.14.16	Item 13 - Time Modulated Contoller	No	1.00		
14.14.17	Item A - 50mm diameter Air Release & Vacuum Break Valve (as per Specification), PN16, flanged to SABS 1123 - 1600/3	No	1.00		
14.14.18	Assembly and Installation of Items above	Sum	1.00		
14.15	MARKING OF CHAMBERS				
14.15.1	Marking of Chambers with names and numbers	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

SUNDRA & ELOFF - TESTING OF DISCREETNESS OF DISTRICT METERED AREAS

Item No	Description	Unit	Qty	Rate	Amount (Rand)
15	SUNDRA & ELOFF - TESTING OF DISCREETNESS OF DISTRICT METERED AREAS				
15.1	DMA 1 - SUNDRA	Sum	1.00		
15.2	DMA 2 - SUNDRA	Sum	1.00		
15.3	DMA 3 - SUNDRA	Sum	1.00		
15.4	DMA 1 - ELOFF	Sum	1.00		
15.5	DMA 2 - ELOFF	Sum	1.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ANCILLARY WORKS - TRAFFIC ACCOMMODATION

Item No	Description	Unit	Qty	Rate	Amount (Rand)
16	ANCILLARY WORKS - TRAFFIC ACCOMMODATION				
16.1	TRAFFIC ACCOMMODATION				
	Temporary traffic-control facilities				
16.1.1	Flagmen	man-day	20.00		
16.1.2	Portable STOP and GO-RY signs	No	2.00		
16.2	ROAD SIGNS: R- AND TR- SIGNS				
	TR201 - 900mm diameter (40 Speed limit)				
16.2.1	Mounted on stand	No	2.00		
	TR214 - 900mm diameter				
16.2.2	Mounted on stand	No	2.00		
16.3	ROAD SIGNS: TW- SERIES				
	TW336 - 900mm diameter				
16.3.1	Mounted on stand	No	2.00		
	TW411 - 2400 x 400				
16.3.2	Mounted on stand	No	2.00		
	TW212 - 900mm diameter				
16.3.3	Mounted on Stand	No	2.00		
	Road signs: STW-, DTG-, TGS- and TG-series (excluding delinators and barricades)				
	TGS111 - 1200mm diameter				
16.3.4	Mounted on Stand	No	2.00		
	Delineators TW401 or TW402				
	Single				
16.3.5	200mm x 800mm	No	7.00		
	Mounted back-to-back				
16.3.6	200mm x 800mm	No	7.00		
	Movable barriers				
16.3.7	Water filled plastic barriers (New Jersey Design)	No	10.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ANCILLARY WORKS - ASPHALT AND SURFACING

Item No	Description	Unit	Qty	Rate	Amount (Rand)
17	ANCILLARY WORKS - ASPHALT AND SURFACING				
17.1	ASPHALT AND SURFACING				
	Excavating and removing material from existing pavement				
17.1.1	Saw-cut existing Surfacing	m			Rate Only
17.1.2	Overhaul on excavated material, cart to spoil for haul in excess of a free-haul distance	m³.km			Rate Only
17.1.3	Cement stabilizaion	m³			Rate Only
17.1.4	Tack-coat of 30% stable-grade emulsion	litre			Rate Only
17.1.5	Asphalt overlay 30mm thick	m²			Rate Only
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ANCILLARY WORKS - CONCRETE

Item No	Description	Unit	Qty	Rate	Amount (Rand)
18	ANCILLARY WORKS - CONCRETE				
18.1	CONCRETE				
18.1.1	Saw-cut existing concrete surfacing	m			
18.1.2	Overhaul on excavated material, cart to spoil for haul in excess of a free-haul distance	m³.km			Rate Only
18.1.3	Reinstating of cast in-situ concrete	m³			Rate Only
18.2	VALVE THRUST BLOCKS				
18.2.1	63mm diameter	m³			Rate Only
18.2.2	75mm diameter	m³			Rate Only
18.2.3	90mm diameter	m³			Rate Only
18.2.4	110mm diameter	m³			Rate Only
18.2.5	160mm diameter	m³			Rate Only
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ANCILLARY WORKS - BLOCK PAVING

Item No	Description	Unit	Qty	Rate	Amount (Rand)
19	ANCILLARY WORKS - BLOCK PAVING				
19.1	BLOCK PAVING				
19.1.1	Removing of existing surfacing	m ²			Rate Only
19.1.2	Overhaul on excavated material, cart to spoil for haul in excess of a free-haul distance	m ³ .km			Rate Only
19.1.3	Polyethylene sheeing (0,15mm thick)	m ²			Rate Only
	Prefabricated concrete paving blocks for sidewalk pavement				
19.1.4	60mm thick interlocking blocks	m ²			Rate Only
19.1.5	63mm diameter	m ²			Rate Only
	Concrete edge beams				Rate Only
19.1.6	Concrete edge beam (300mm x 300mm, Class 30/19 concrete, U2 surface finish)	m ³			Rate Only
19.1.7	Kerbs	m			Rate Only
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

ANCILLARY WORKS - VALVES

Item No	Description	Unit	Qty	Rate	Amount (Rand)
20	ANCILLARY WORKS - VALVES				
20.1	Supply and deliver 100mm diameter Gate Valves, with Captop, PN16, flanged both ends	No	4.00		
20.2	Supply and deliver couplings for 100mm Gate Valves	No	4.00		
20.3	Supply and deliver 150mm diameter Gate Valves, with Captop, PN16, flanged both ends	No	4.00		
20.4	Supply and deliver couplings for 150mm Gate Valves	No	4.00		
20.5	Supply and deliver 200mm diameter Boundary Gate Valves, with Captop, PN16, flanged both ends	No	4.00		
20.6	Supply and deliver couplings for 200mm Gate Valves	No	4.00		
Total Carried Forward To Summary					

**PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER RELATED INFRASTRUCTURE IN
REDUCING THE NON-REVENUE WATER IN SUNDRA AND ELOFF**

Contract No.: T/RW07/WSIG/P2/2024/2025

Schedule Of Quantities

SUMMARY OF SECTIONS

Section	Description	Amount (Rand)
1	PRELIMINARY AND GENERAL	.....
2	PRIME COST (PC) ITEMS	.....
3	PRESSURE AND FLOW LOGGING	.....
4	CONSUMER METER AUDIT & REPLACEMENT	.....
5	ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: SUNDRA	.....
6	ACTIVE LEAK MANAGEMENT - NETWORK RETICULATION: ELOFF	.....
7	PUMPING MAIN - FROM SUNDRA TO ELOFF	.....
8	DMA 1 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE	.....
9	DMA 1 - SUNDRA RESERVOIR COMPLEX: VALVES AND BULK METER CHAMBERS	.....
10	DMA 1 - SUNDRA RESERVOIR COMPLEX: PUMPSTATION	.....
11	DMA 2 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE	.....
12	DMA 3 - SUNDRA DMA'S AND PRESSURE MANAGEMENT ZONE	.....
13	DMA 1 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE	.....
14	DMA 2 - ELOFF DMA'S AND PRESSURE MANAGEMENT ZONE	.....
15	SUNDRA & ELOFF - TESTING OF DISCREETNESS OF DISTRICT METERED AREAS	.....
16	ANCILLARY WORKS - TRAFFIC ACCOMMODATION	.....
17	ANCILLARY WORKS - ASPHALT AND SURFACING	.....
18	ANCILLARY WORKS - CONCRETE	.....
19	ANCILLARY WORKS - BLOCK PAVING	.....
20	ANCILLARY WORKS - VALVES	.....
	Subtotal A	.....
(a)	Add 10% Contingencies (The Sum provided here is under the sole control of the Engineer and may be deducted in whole or in part)	.....
	Subtotal B	.....
(b)	Add 15% Value Added Tax (VAT)	.....
Total Carried Forward To Summary Of Schedules		.....

SUMMARY OF BILL OF QUANTITIES

SUMMARY OF BILL OF QUANTITIES		
SCHEDULE A: CIVIL WORKS		
SECTION	DESCRIPTION	AMOUNT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
SUBTOTAL A		
ADD: 10% Contingencies		
SUBTOTAL B		
ADD: 15% VAT		
TENDER (CONTRACT) PRICE TO FORM OF OFFER This amount includes 15% Vat		

Contractor

Witness 1

Witness 2

Employer

Witness 1

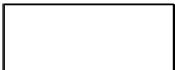
Witness 2

VICTOR KHANYE LOCAL MUNICIPALITY

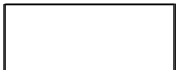


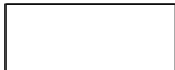
TENDER NO: T/RW07/WSIG/P2/2024/2025
PROVISION OF CIVIL ENGINEERING AND CONSTRUCTION OF WATER
RELATED INFRASTRUTURE IN REDUCING THE NON-REVENUE WATER
IN SUNDRA & ELOFF

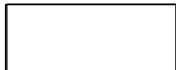
C3 SCOPE OF WORK


Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

SCOPE OF WORK

INDEX

Section	Description	Page No
C3.1	DESCRIPTION OF THE WORKS.....	C3.1
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C3.5	MANAGEMENT.....	C3.5
C3.6	REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY SPECIFICATION.....	C3.6
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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1 DESCRIPTION OF THE WORKS

C3.1 DESCRIPTION OF THE WORKS

1) Background and Problem Statement

VKLM is dependent on Rand Water for its bulk water supply which it purchases based on usage. It then sales the potable bulk water to its customers through its water distribution network system. It supplies water to Delmas which is the administrative centre of the municipality, Botleng township, Eloff and Sundra. It recovers the costs of purchasing bulk water and distribution to the consumers in these areas through a tariff structure for different consumer categories. The focus of this tender is on Sundra and Eloff water distribution networks (WDNs).

Over the last 10 years the municipality has been accumulating debt from its bulk water purchase which is attributed to the following:

- 1) The amount of bulk water purchased is much higher than actual consumption because of the significant water losses in the water distribution networks which is due to:
 - a. The age and condition of the water infrastructure network. The infrastructure leakage index (ILI) was determined to be 4.5 for the Eloff WDN and 12.95 for Sundra. The high ILI is attributed to the frequent pipe bursts in Sundra because the AC pipes are coming to the end of its life.
 - b. The topography of the WDN results in uneven distribution of the available water with the high lying areas receiving intermittent water supply while the low lying areas have high system pressures which is contributing to the high physical water losses.
- 2) The consumer meters in Sundra and Eloff are older than 7 years. This has resulted in the consumer meters understating the actual consumption and resulting in under recovery of the consumption. This is resulting in VKLM not meeting its obligation to pay for the bulk water services and accumulating debt.
- 3) The main bulk pipelines supplying water from Sundra Reservoirs to Eloff is an AC pipeline which has been experiencing frequent pipe burst due to the age and poor condition of the bulk main. This is contributing to the physical water losses in the two WDN.

Because VKLM is not recovering enough money from water sales and losing water in the bulk and reticulation water distribution network systems of Sundra and Eloff, the extent of the NRW is very high determined to be 46.5% of the System Input Volume (SIV). In addition to the debt burden being experienced, the municipality has been exceeding its water allocation from Rand Water.

2) Employer's Project Objective

The objective of this tender is to undertake the implementation of several infrastructure related intervention measures that can reduce both the physical water losses as well as the apparent (commercial) water losses. The works in this contract are to be executed by using both conventional construction and labour-intensive construction methods according to the Special Public Works Programme (SPWP) as prescribed in the guidelines of the Expanded Public Works Programme (EPWP).

The following prerequisites will apply for the appointment of subcontractors:

- All subcontractors used will be Broad Based Black Economic Empowerment (BBBEE) compliant
- Subcontractors will preferably be from the communities where the Works are being undertaken
- Otherwise subcontractors will be from the Victor Khanye Local Municipality (VKLM) region in the proximity of the community where the Works are executed or other VKLM regions.
- Prior to site establishment, the successful tenderer will submit details of the subcontractors to be used in the execution of the Works

Works earmarked for Subcontractors and Labour intensive construction methods will be numbered with a prefix of “SC” and “LI” respectively in the bill of quantities to distinguish them from the conventional construction works. Labour intensive construction methods shall be implemented using unemployed local workers who are temporarily employed in terms of the project specification.

3) Overview of the Works

The project requires the construction of an uPVC bulk pipeline of approximately 2.4 km, construction of bulk meter chambers, pressure reducing valve chambers, installation of Magnetic Flow Meters, PRVs as well as Level Control valves at the Sundra reservoir complex and the installation of smart meters and prepaid consumer meters. The areas are as indicated in the locality map and layout plans.

The Works will consist of the following:

Rehabilitation of the Sundra to Eloff Bulk Pipeline

The rehabilitation of the Sundra to Eloff Bulk Pipeline will comprise undertaking the following:

- 1) Excavation of the pipeline trench along the existing 200 mm diameter AC pipeline for approximately 2.5 km from the Sundra reservoir complex.
- 2) Installing of bedding material and compaction of the bedding material to achieve the required Mod AASHTO maximum dry density of 95% Mod ASHTO MDD.
- 3) Installation of a 315 mm diameter uPVC pipes for approximately 2.5 km.
- 4) Tying in into the existing pipe at the delivery pipe at Sundra reservoir complex and on the existing 200 mm AC pipes approximately 2.5 km from the Sundra reservoir complex to Eloff.

Establishment of District Metered Areas (DMAs) in Sundra and Eloff

The establishment of the DMAs will comprise undertaking the following:

- 1) Exposing of the existing reticulation network pipes to determine the pipe diameters at the location of the proposed boundary valves
- 2) Installation of the boundary valves including the valve chambers. Undertake zero pressure testing
- 3) Construction of chambers for installation of the DMA bulk meters as per the location in the locality map and layout plans.

- 4) Installation of the DMA Magnetic Flow meters for each DMA as per the specification in the tender document. There three DMAs in Sundra WDN to be established and two DMAs in Eloff.
- 5) Commissioning of the DMA Magnetic Flow meters.

Installation of Level Control Valves and Electric Level Control

To reduce the reservoir overflows at the Sundra reservoir site the following works will be undertaken:

- 1) Construction of the Valve chamber according to the specifications and detailed drawing of the RC chambers
- 2) Cutting the existing inlet pipe and installation of the level control valve and pipe specials including the stilling well for energy dissipation in the existing reservoir
- 3) Installation of the level sensor into the elevated tank to enable automatic start and stop of the booster pumps

Undertake Consumer Meter Audit

To develop a consumer meter replacement programme the following works will be undertaken

- 1) Collate the consumer meter data from the Finance Department of Victor Khanye Local Municipality and link the consumer meter data to the cadastral database in GIS
- 2) Identify potential local community members who have the requisite qualification data capturing of the consumer meters. Undertake the training of locals to undertake consumer meter audit which involves physical verification of the consumer meters including the condition assessment of the meters.
- 3) Using the local data capturers, undertaken consumer meter audit in Sundra and Eloff.
- 4) Prepare a recommendation for consumer meter replacement.

Installation of Smart Meters, Automatic Meter Readers (AMR) and Prepaid Meters

The findings and recommendations of the Consumer Meter Audit will be used to prioritise the installation of smart meters. The following works will be undertaken

- 1) For the top 20 consumers in Sundra and Eloff, the contractor will replace the large consumer meters and install the AMR cards on to the new meters for the commercial and industrial consumers.
- 2) Approximately 1500 consumer meters recommended for replacing during the consumer meter audit must be replaced by installing prepaid meters as the specifications and type provided in the document.

Installation of Pressure Reducing Valves

As part of the reduction of the physical water losses the following works will be undertaken

- 1) Construction of PRV chambers where these are at different location to the DMA bulk meter chambers.
- 2) Installation of the PRVs as per the project specifications including all pipe specials
- 3) Installation of time modulated controllers to enable remote pressure management of the PRV.

4) Extent of the Works

Conventional Construction Methods

- Establishment of the contractor's camp and Engineer's offices
- Relocation, and tying into existing services
- Accommodation of traffic
- Excavation of the pipe trenches and installation of the pipes will be done conventionally due to the size of the pipes
- The construction of valve chambers will be done conventionally due to the specialist skills in fixing rebar, concrete works that is needed and the nature of work
- Reinstatement of disturbed surfaces to similar status as before, including landscaping and regressing

Sub-Contracting Works

- Security Services of the contractor's camp
- Hiring of Chemical Toilets including disposal of waste
- Hiring of plant and equipment according to specifications provided by the contractor

Labour Intensive Construction Methods (EPWP)

- Preparing of the bedding in pipe trenches
- Backfilling and compaction of the pipe trenches and around valve chambers
- Fencing
- Exposing of existing services

5) Location of Site

See Layout Plan and Locality Plan Drawing



C3.2 PROJECT SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

C3.2.1 SPECIFICATIONS and MANUFACTURING DETAILS OF PIPES

1 SPECIFICATIONS – STEELPIPES

1.1 Specification on the Steel Pipe Material

Steel pipes will be manufactured by the following grade steel material:

300WA / X42.

1.2 Dimensional Specification of Pipes

Pipe wall thickness shall be subject to a tolerance of plus 10% and minus 8%. The pipe ends shall be clean cut, free from burrs and acceptable square to the axis of the pipe. The pipe ends shall be prepared for welding, be plain ended or flanged. Pipe with a diameter smaller than 500ND will normally be belled ended and bevelled ended for pipes with diameter greater than or equal to 500ND.

1.3 External Coating Specification

1.3.1 Galvanising

The Galvanising Coatings shall comply with SANS 62.

1.4 Internal Lining Specification

The lining shall be by galvanising and shall comply with SANS 62. All lining products shall possess a SANS Potable Water Certificate, which shall not be more than 2 years old and issued by SANS.

1.5 Flexible Couplings

All flexible couplings for plain-ended steel pipes and fittings must be of the slip-on type without a centre register, such as Viking Johnson or an approved equivalent, and they must comply with the applicable requirements of BS 534. Flexible couplings must be thoroughly cleaned and painted as specified in the project specifications.

C3.2.2 SPECIFICATIONS – uPVC PIPES

2 Specification on the uPVC Pipe

uPVC pipes must comply with the SANS Specification and must bear the SANS mark for Class 9 or the Class as specified in the Bill of Quantities.

FITTINGS AND SPECIALS

Material type	:	Mild Steel to SANS 719 from grade X42/300WA steel
Specials	:	Manufactured to BS 534
Joint type	:	Electric Resistance Welding (ERW) / Electric Fusion Welding
Wall thickness	:	4.2mm
Field Welding requirements	:	Comply to API 1104
Bends	:	Medium to Long radius
External protection	:	Epoxy paint of the highest quality or Galvanizing
Internal protection	:	Epoxy paint of the highest quality or Galvanizing

VALVES

- **Isolating valves:**

Type	:	Flanged Butterfly / Gate Valves to BS 5155
Class- Supply pipe	:	Class 16 – 1600 kPa
Valve body	:	Spheroidal Graphite (SG), grey cast or ductile iron.
Disc	:	Spheroidal Graphite (SG), grey cast, ductile iron or stainless steel.
Coating	:	Inside and out with an epoxy paint of the highest quality.
Diameter	:	75% - 100% of pipe diameter
Spacing	:	As per site requirements

- **Scour valves:**

Type	:	Flanged Butterfly/Gate Valves to BS 5155
Class	:	Class 16 – 1600 kPa
Valve body	:	Spheroidal Graphite (SG), grey cast or ductile iron.
Disc	:	Spheroidal Graphite (SG), grey cast, ductile iron or stainless steel.
Coating	:	Inside and out with an epoxy paint of the highest quality.
Diameter	:	75% - 100% of pipe diameter
Spacing	:	As per site requirements

Flange dimensions and drilling : SANS 1123:1977 Table 1600 (or 2500 when specified)

Air valves:

Type : Air Release & Vacuum Break Valves to SANS 664 or Similar
Approved by the Engineer

Class : Class 16 – 1600 kPa

Size - 75mm Supply pipe : DN 50

- 100/110mm Supply pipe : DN 50

- 150mm Supply pipe : DN 50

- 200mm Supply pipe : DN 50

- 250mm Supply pipe : DN 50

- 300mm Supply pipe : DN 50

- 350mm Supply pipe : DN 50

PRV Chamber : DN 50

Flow Chamber : DN 50

Flange dimensions and drilling : SANS 1123 - Tables 2500/3 & 1600/3

LEVEL/ALTITUDE CONTROL VALVES

Type : Level Control Valves and/or Altitude Valve or similar
approved by the Engineer

Class : Class 16 – 1600 kPa

Setting range : 0.5 - 5 m water head (Standard version)

Minimum pressure : 0.7 bar

PRESSURE REDUCING VALVES

Type : Pressure Reducing Valves

Controllers : Time Modulated Controllers or similar approved by the
Engineer

Class : Class 16 – 1600 kPa

WATER FLOW METERS

Type : Electromagnetic Flow Meter with GPRS Module,

comprising Sensor and Converter, with digital pulse input, Remote Mount, Capacity for 1 pressure point, On Board Data Logger, Ground rings, etc

Class : Class 16 – 1600 kPa

STRAINERS

Type : H-Strainer (Recommended), alternatively Y-Strainer

Class : Class 16 – 1600 kPa

C3.2.1 STANDARDS AND CODES OF PRACTICE

The following design standards for Civil Engineering infrastructure will apply:

- i) *Guidelines for the provision of Engineering services and amenities in residential township development* by the National Housing Board (Red book).
- ii) *General Conditions of Contract for Construction Works (2015) (Third Edition)* by the South African Institution of Civil Engineers.
- iii) *Standardized Specification 719* as supplied by the South African National Standards
- iv) *American Petroleum Institute: Welding of Pipeline and Related Facilities – API Standard 1104*, Reaffirmed April 2010.

SPECIFICATION ON BUTTERFLY VALVES

1. GENERAL

1.1 Type

Butterfly valves shall be of the doubled flanged, full-bore and "tight shut off" type with the replaceable resilient seal. For pressures to 16 bar the valve will be a double eccentric disc type, and for pressure higher than 16 bar a triple eccentric type, metal seated valve will also be considered. All valves will be supplied complete with matching, uncoated, flanged both ends, bolted to valve complete with Klingtite gaskets.

The coating internally and externally, as well as the disc, shall be a two pack Epoxy, 300 microns minimum thick, or Fusion bonded epoxy powder, applied within four hours of shotblasting to S.A 3. All contact areas of dissimilar materials are to be wet assembled to prevent galvanic corrosion. The epoxy paint must be pinhole free. Paint thickness and Pinhole (spark test) recordings must be provided on delivery of valves.

Gearboxes shall be of the self-locking worm/quadrant type with no backlash.

Operation shall be by means of a pinion driving the quadrant.

Worm shafts shall be fitted with roller bearing thrust bearings to ensure minimal operating effort and smooth rotary action of the input shafts.

End stops shall be of the travelling nut type enabling precise setting of the open/closed positions.

The enclosure shall conform to a minimum of IP67 to prevent the ingress of water and debris into the gearbox housing.

The Gearbox to valve mounting flange shall have a groove from the input shaft to the edge of the flange to ensure early detection of any leakage from the valve shaft seals.

Gearboxes shall be packed with approved water resisting grease.

Gearboxes shall in all instances be sized for fitting of actuators (hand wheel operated valves included) on site without any additional modification. Actuator mounting flanges shall conform to ISO 5211. Hand wheel sizes will not exceed 400mm diameter for PN16 valve sizes 300mm to 1000mm and 400mm diameter for PN25 for valve sizes 300mm and 800mm and 500mm diameter for valve sizes 800mm to 1000mm diameter. Maximum rim pull on the hand wheel may not exceed 300 Newtons.

Additional fully enclosed spur gearing may be required to comply with the aforementioned requirement.

Gearboxes shall be provided with external mechanical open/closed position indicators

approved by the Engineer

Full details of gearboxes in the form of a general arrangement drawing or certified catalogue information shall be required from the contractor.

Hand wheel operated valves shall be fitted with shear pins of an approved design to prevent damage to the gearbox and valve if excessive force is applied to the hand wheel.

ALL Valves shall be LEFT HAND closing.

ALL valves supplied must include a 15-year guarantee, and upon appointment, the company tendering may be requested to submit information that substantiate their claim that such a guarantee is possible and will be honoured. Information required is how long the company exist, the infrastructure and financial backing, how long is the valve being supplied by the company, clients and contact people that can verify the service backing and performance of the valves offered.

1.2 Specific Specifications

Butterfly valves shall be in accordance with BS 5155. Flange drilling according to SANS 1123, PN 16 and PN 25.

1.3 Flow Rates

No cavitation in the fully open position shall be accepted. The maximum permissible flow rate at the maximum differential pressure across the valve and the head loss for the specified flow rate shall be stated in the Technical Schedule.

1.4 Operation

A butterfly valve shall close under maximum specified head and flow rate and shall be functional in any position without variation of the blade position or flutter. Normal operation shall however be in either the fully open or fully closed position.

There shall be no interference in the water pattern through a valve except for the blade.

The blade shall close with a positive action with no possibility of slamming shut during any stage of the closing operation.

A butterfly valve shall be installed in a position allowing the valve to operate along the horizontal axis. The lower portion of the blade shall open towards the downstream side of the valve i.e. in the direction of flow. All valves shall be fitted with a gearbox complete with hand wheel of Left-Hand Closing.

2. CONSTRUCTION AND OPERATIONAL REQUIREMENTS

2.1 Body

The hubs for the shaft-bearings and the gearbox mounting flange shall form an integral part of the valve body.

2.2 Blade

The blade shall be a single casting or fabrication of optimum hydrofoil section with a smooth continuous surface. The maximum combined stresses in the blade shall not exceed 20% of the yield stress of the material when the design pressure is applied on any of the two sides.

2.3 Seal Retaining Ring/s

The seal retaining ring/s, manufactured from stainless steel material, shall be coated to reduce galvanic corrosion. The recess for the retaining ring/s in the blade or body shall be coated to the specified corrosion protection specification or the seal face shall be assembled with a coat of wet solvent free Epoxy.

2.4 Seat and Seal

2.4.1 Soft seal butterfly valves PN 16 and 25 Bar or alternatively metal seated triple eccentric butterfly valves

Preference shall be given to a resilient seal arrangement that is removable, replaceable and adjustable in situ from the downstream side of the valve, without having to remove the valve from the pipeline.

A continuously moulded music note or tee type resilient seal is required for a valve specified for high velocity application (glued seals are not acceptable).

The edge of the seal retaining groove in the blade shall be stainless steel 304L deposit welded before machining for an o-ring or music note type seal.

The resilient seal shall have non-weathering, non-sticking, long life properties and shall be compatible with the quality of water to be conveyed.

The seat profile shall be smooth and continuous and shall provide adequate "lead in" for the resilient seal to open and close on the stainless-steel seat only. The mounting flange of the removable seat in the body shall either be stainless steel deposit welded and machined level with the seat or the seat ring manufactured to cover the seat mounting flanged.

The seat and seal shall be of a design preventing them from becoming loose and obviate water seepage under the seals or seats during all conditions of operation and testing.

2.4.2 Metal seated triple eccentric butterfly valves PN 25 Bar

High Performance Triple Eccentric Metal Seated Design Manufactured in accordance with BS 5155 Specification. Materials to be compatible with media and pressure requirements as per Table 3.1. Valve shall have replaceable laminated seal in the body and a replaceable seat ring on the disc.

2.5 Mechanical Stops

To prevent over travel of the valve blade in the open or closed position, all valves shall have adjustable mechanical stops incorporated in the gearbox.

2.6 Shafts

Shafts shall either be continuous or of a stub-shaft design configuration. Stub shafts shall extend into the blade hubs for a distance of at least 1.5 shaft diameters and shall not protrude from the hubs i.e., exposing the shaft.

Shafts shall be attached to the blade by means of keys, dowel pins, taper pins or any combination of the three. The connection shall be designed to transmit shaft torque equivalent to at least 75% of the torsional strength of the shaft. Dowel and taper pins shall be mechanically secured.

The idle shaft cover shall be manufactured from stainless steel and secured with stainless steel fasteners.

2.7 Bearings

Self-lubricating sleeve type bearings (bronze backed or PTFE backed self-lubricating glacier DU) or bushes shall be fitted in the hubs of the valve body. Bearing length minimum $1,5 \times$ shaft diameter.

Each valve shall be fitted with at least one adjustable thrust bearing or spacer disc set to hold the blade securely concentric with the body or seat.

3. VALVE MATERIAL SPECIFICATION

Valve components, unless otherwise specified in the Project Specification, shall be constructed of the material specified in the following tables.

TEST REQUIREMENTS**Table 3.1: Butterfly valve (DN 300 – 1000)**

SIZE ND	PRESSURE RATING (kPA)	HYDRAULIC TEST PRESSURE (kPA)	
		STRUCTURAL	SEAT
300 - 1000	1 600	2 400	1 760
300 - 1000	2 500	3 750	2 750

Table 3.2: Material Specification for Butterfly Valves

COMPONENT	MATERIAL TYPE	MATERIAL SPECIFICATION
BODY	SG IRON CAST STEEL MILD STEEL STAINLESS STEEL	BS 2789 Gr 420/SANS 936 SG 42 ASTM A216 WCB BS 1504-161 Gr 480/SANS 1465 Part 1 SANS 1431 Gr 300WA
DISC	SG IRON CAST STEEL MILD STEEL STAINLESS STEEL	BS 2789 Gr 420/SANS 936 SG 42 ASTM A216 WCB BS 1504-161 Gr 480/SANS 1465 Part 1 SANS 1431 Gr 300WA
BODY SEAT (PN 16) BODY SEAL for PN 16 and PN 25	STAINLESS STEEL STAINLESS STEEL	BS 970 Part 4, Gr 304 S15 BS 970, SS Gr 316 LAMINATED
BLADE / SEAL (PN 16) BLADE SEAT RING (PN 16 – 25)	ELASTOMER STAINLESS STEEL	EPDM 75°A SS Gr 304
SEAL RETAINING RING	STAINLESS STEEL	BS 970 Part 4, Gr 304 S15
SHAFTS	STAINLESS STEEL	BS 970 Part 4, Gr 431 S29
SHAFT BEARINGS / BUSHES	PHOSPHOR BRONZE SLEEVE TYPE PRFE BACKED/SELF LUBRICATING	BS 1400 PB1C (Cu, Sn10, P) BRONZE BACKED (DUB) GLACIER DU
SHAFT SEALS	RADIAL LIP SEAL/CUP SEAL/O-RING SEAL ELASTOMER	NITRILE/VITON SIMRIT NBR
IDLE SHAFT COVER	STAINLESS STEEL	BS 970 Part 4, Gr 304 S15
IDLE SHAFT THRUST BEARING / SPACER DISC	PHOSPHOR BRONZE	BS 140 PB1C (Cu, Sn 10, P) (for vertical installation)
EXTERNAL FASTENERS	STEEL (HOT DIP GALVANIZED) STAINLESS STEEL	SANS 1700 ASTM A193 Gr B8M, ASTM A439 Gr D2
INTERNAL FASTENERS	STAINLESS STEEL	ASTEM A193 Gr B8M, ASTM A439 Gr D2

SPECIFICATION ON RESILIENT SEAL VALVES**1. GENERAL****1.1 Type**

All valves shall be doubled flanged and of the resilient seal gate type, the gate of which shall be completely clear of the waterway in the fully open position. The gate valve shall be of the non-rising spindle type, fitted either with a handwheel or captop (type will be specified in the Schedule of Quantities). The valve shall be capable of withstanding the nominal pressure (PN) and specified test pressures from both sides. The gate shall operate satisfactorily under the specified conditions and shall be Left Hand closing.

All valves supplied shall include a 10-year guarantee, and the tendering company shall be requested to furnish information that substantiate their claim that such a guarantee is possible and will be honoured. Information required is how long the supplying company exist, the infrastructure and financial backing, how long are the valves supplied by your supplying company, clients and contact people that can verify the supply of the valves, the service backing and performance of valves supplied.

1.2 Specifications

The valve shall be manufactured in accordance with SANS 664 and carry the SANS mark. Flange drilling according to SANS 1123, PN10 and PN16. The manufacturer/supplier shall have the SANS 3000 cycle test done and provide certified copies to verify that the product passed the test.

1.3 Body

The body shall be of rigid design to minimise distortion under pressure. Bodies shall be designed and manufactured to withstand any additional gearing related stresses.

1.4 Operation

The gate valve shall be able to open and close satisfactorily under the specified flow rate and pressure.

Position indicator

All valves of DN 300 and larger shall be fitted with a mechanical linear indicator system mounted on the valve stem to show the position of the gate.

Stem and thrust bearing

Two friction washers (sizes 50mm – 200mm) and thrust ball bearings (250mm – 600mm) shall be incorporated on the thrust collar to ensure smooth spindle operation as well as to reduce opening and closing torques.

The stem thrust collar shall bear against a ball thrust bearing, details of which shall be furnished by the Contractor (upon appointment, when requested to do so).

1.5 CORROSION PROTECTION

Corrosion protection of valves shall consist of internally and external coating of minimum 250 μ (microns) of fusion bonded epoxy. The epoxy paint must be pinhole free. Paint thickness and Pinhole (spark test) recordings must be provided on delivery of valves.

An edge protecting ring shall be permanently fitted around the bonnet and body joint in order to protect the coating during transportation and installation. Damage to the corrosion protection or the rubber-coated gate during testing or normal operation will not be acceptable.

2. CONSTRUCTION AND OPERATIONAL REQUIREMENTS

2.1 RESILIENT SEAL GATE VALVES

2.1.1 Body, guides and shoes

The gate shall have optimally placed guides of wear resistant plastic so as to reduce the torques as well as reduce wear between the rubber and the coating on the body.

The valve body shall incorporate a straight unobstructed body passage without pockets and shall have inclined seats and prominent gate guides to eliminate deposits in the valve body.

The guides shall be as deep and as long as possible, but not protruding into the flow path to offer support in all gate positions.

The rubber coated gate shoes shall accurately fit the body guide profile to allow smooth operation of the gate with minimal shudder.

2.1.2 Gate

The gate shall be completely encapsulated in rubber and accurately moulded to ensure drop tightness over the valve pressure range. The rubber coated gate shall be designed to offer an equal distribution of sealing pressure in all directions with a capacity to accept foreign matter up to 1mm in particle size. Documentation to prove that the rubber used for encapsulation complies with international health standards will be supplied, including a toxicity report with respect to toxins, taste and odour.

The gate shall be a left-hand closing type.

2.1.3 Stem

A corrosion resistant stem seal arrangement shall include a scraper ring to prevent the ingress of foreign matter. A stem thrust collar shall be installed between anti-friction materials to ensure low operating forces.

The gate nut shall not be fixed to the wedge, it must be of reparable type as per SANS 664, thereby reducing opening torques.

2.1.4 Bonnet: Bolts and Gaskets

The bonnet bolts shall be entirely sunk into the body casing, sealed and protected by re-useable hot wax melt. Bolts will be Grade 8.8 high tensile steel protected to standards in the material specification.

The valve shall have a preformed NBR rubber gasket, O ring type, set in a recess between the Bonnet and Body. The gasket must encircle each bolt.

2.1.5 Spindle

The manufacturing of the spindle will be a cold rolled thread stainless steel type, with minimum diameter:

Valve size	80mm– 110mm	150mm– 160mm	200mm	250mm– 600mm
Min Spindle diameter	25mm	28mm	32mm	34mm

3. MATERIAL FOR RESILIENT SEAL VALVES

Valve components shall be constructed of the material specified in the following tables unless otherwise specified in the Project specification. Material certificates will be provided on delivery of the valves.

3.1 RESILIENT SEAL GATE VALVE (DN 50-600)**TEST REQUIREMENTS**

SIZE DN	PRESSURE RATING (kPa)	HYDRAULIC TEST PRESSURE (kPa)	
		STRUCTURAL	SEAT
50 – 600	1 000	1 500	1 100
	1 600	2 400	1 750
	2 500	3 750	2 750

Hydro pressure test certificates must be provided on delivery of valves.

MATERIAL SPECIFICATION		
COMPONENT	MATERIAL TYPE	MATERIAL SPECIFICATION
BODY	Ductile Iron	SANS 936 SG 42
GATE	Ductile Iron, COATED	SANS 936 SG 42, Vulcanized EPDM ozone stabilized, UV resistant
BONNET	Ductile Iron	SANS 936 SG 42
SPINDLE	STAINLESS STEEL	BS 1449 Gr420 S37 Cold Rolled Thread
GATE NUT	BRONZE	Dezincification resistant (CuZn36Pb3As)
STEM BUSH	PLASTIC	
BUSH / STEM/ STUFFING BOX SEALS	O RING	NITRILE / VITON
PROFILE / SCRAPER RING	O RING	NITRILE / VITON
FRICTION RING	PLASTIC	
HAND WHEEL	SG IRON	BS 2789 Gr 420/12, SANS 936 SG 42
EXTERNAL FASTENERS	STEEL (HOT DIP GALVANIZED) STAINLESS STEEL HIGH TENSILE	SANS 1700 ASTM A193 Gr B8M, ASTM A439 Gr D2 Grade 8.8

FLOW CONTROL

- **Flow control in pipelines:**

Isolating valves shall be installed in all the pipelines, including at intervals of 500m maximum. Double action air valves shall be installed on the low side of each isolating valve as well as at all high points and where the change in the gradient varies significantly. Scour valve shall be installed on the high side of each isolating valve to drain the pipe for maintenance purposes as well as at the low point in the bulk pipeline.

- **Flow Control in the PRV Chambers:**

The pressure control shall be done in the Pressure Reducing Valve Chambers.

- **Flow Measurement in the Meter & PRV Chambers:**

The flow measure in the Meter Chambers and PRV Chambers shall be done by installing the Electromagnetic Water Flow Meter (MAGFLOW), which is Battery Operated.

The MAGFLOW shall comprise of Flow Sensor and Converter, Remote Mount, have Capacity for 1 pressure input, On Board Data Logger and GPRS Module, Pressure Sensor, Grounding Rings, Mating Flanges, bolts and Gaskets

C3.3 PROCUREMENT

C3.3 PROCUREMENT

- The Specific goals allocated for this project will be applied as indicated on the following Table:

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
RACE	6	
GENDER	6	
DISABILITY	6	
RDP	2	

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS		
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
100% black person or people owned enterprise	6	A copy of a Full CSD report not older than 3 months

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY WOMEN OR MEN		
WOMEN OR MEN	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
More than 30% women owned enterprise	6	A copy of a Full CSD report not older than 3 months
Men only owned enterprise	5	

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY PEOPLE WITH DISABILITY		
PEOPLE WITH DISABILITY	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
More than 30% people living with disability shareholding or owned enterprise	6	A copy of a Medical Certificate to confirm disability

POINTS FOR IMPLEMENTING RDP PROGRAMMES		
RDP	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
Corporate Social Investment (CSI)	2	Local / Social Labour plan proposition
TOTAL PREFERENCE POINTS TO BE CLAIMED	20	

C3.4 CONSTRUCTION

C3.4 CONSTRUCTION

C3.4.1 Works specifications

Although not bound in or issued with this document, the latest editions, including all amendments, of the SANS 1200 Standardized Specifications for Civil Engineering Construction as approved by the Council of the South African National Standards shall apply to this Contract.

The Contractor shall be in possession of these Standardized Specifications and their related SANS 0120 Code of Practice which apply equally and shall keep a copy of each on site for reference by him and the Engineer for the duration of the Contract.

Copies of SANS 1200 Standardized Specifications are available from the Standards South Africa.

The Particular Specifications together with the Drawings and Bill of Quantities clearly indicate the sections of the Standard Specifications which apply to this contract.

C3.4.2 Plant and materials

Plant hired and materials procured from the local community where possible is encouraged.

C3.4.3 Construction equipment

Equipment hired from the local community where possible is encouraged.

C3.4.4 Contractor's Employees

1. MINIMUM EMPLOYMENT CONDITIONS FOR CONVENTIONAL CONSTRUCTION WORKS

Contractors shall comply with the Basic Conditions of Employment Act (Act No 75 of 1997).

For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply to this project shall be guided by the Sectorial Determination 2: Civil Engineering Sector, Government Gazette No. 33505, dated 27 August 2010 (with effect from 1 September 2010) **and as corrected** by Government Gazette 33804 dated 26 November 2010.

Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) **as per correct** Government Gazette No. 42986 of 31 January 2020 (Revised on 17 February 2020), shall apply to works described in the Scope of Work as being labour-intensive and which are undertaken by unskilled or semi-skilled workers.

The following minimum conditions shall apply to this Contract and Contractors shall include such conditions in employment contracts.

1.1 Employment contracts

The Contractor shall enter into an employment contract with every one of his/her employees, including short-term contracts i.e. contracts in which employment commencement and employment termination dates are specified. Short-term employment contracts will also apply an employee employed for only one day.

1.2 Normal working hours

Normal working hours are from 07:00 to 17:00 from Monday to Friday. A tea break is taken from 09:00 to 09:15 and lunch from 12:30 to 13:00.

Actual hours to work and be paid for is 9 hours per day. If a lunch break of one (1) hour is taken then the normal working day will be as follow:

Morning work sessions from 07:00 to 12:00, lunch break from 12:00 to 13:00, and afternoon sessions from 13:00 to 17:00.

1.3 Wages

- The hourly rate shall be agreed upon between the Contractor, the Employer and the employees.
- For a full day's work the hourly rate shall be multiplied by 9. Normal 5-day week hours of work shall be 45 hours.
- The minimum wages:

These wages have been Gazetted in a Sectoral determination which is the Minimum conditions of employment for the Civil Engineering Industry. The Minister of Labour legislates the minimum conditions applicable to all employers and employees in the industry. The latest figures are available from South African Federation of Civil Engineering Contractors (SAFCEC).

Overtime pay shall be 1.5 times the ordinary wage.
An employee shall be paid monthly.

1.4 Short time (excluding short time due to inclement weather)

If for reasons, which may be ascribed to the employee, e.g. arriving late for work or taking an afternoon off, the hours not worked shall be deducted from the daily wage calculation.

1.5 Short time resulting from inclement weather

- i. If the Contractor informs his/her employees that no work will be done the following day due to inclement weather, no payment will be due to the employee for such a day.
- ii. If the Contractor has not informed his/her employees that no work will be done due to inclement weather and no work or less than four (4) hours of work is possible during a day, the Contractor must pay the employee for four (4) hours of work. If more than four (4) hours of work is done, the Contractor shall pay the employee for the number of hours worked.

1.6 Vacation leave

If an employee has been in full time employment for more than four (4) months, he/she shall be entitled to 1 day's paid leave for every seventeen (17) days the employee worked or was entitled to payment.

1.7 Family responsibility leave

If an employee has been in full time employment for more than four (4) months, he/she shall be entitled to three days paid leave in a leave cycle of thirty-six (36) months of employment:

- i. When the employee's child is born;
- ii. When the employee's child is sick;
- iii. In the event of death of the employee's spouse or life partner, parent, grandparent, child or grandchild.

The employee shall provide the required proof to the Contractor of the event, failing which the leave shall be unpaid leave

1.8 Maternity leave

At least four (4) months unpaid leave.

1.9 Sick leave

The employee shall be entitled to one (1) day's paid sick leave of normal wages for every twenty-six (26) days worked.

If an employee is absent for three (3) or more consecutive days, the employee shall provide a sick certificate from a registered medical practitioner to qualify for sick leave payment. If such certificate is not provided, no sick leave payment will be due to the employee.

1.10 Piece work

Irrespective of the quantity of work done under a piece work system during a working week, the employee shall be entitled to a minimum of a week's wages determined as if no piece work applied.

The Contractor or employee may terminate an employment contract by giving notice of termination of not less than:

- i. On short period contracts i.e. a contract which states from which date work employment commences and on which day employment terminates, the terms of the employment contract shall apply;
- ii. One week if employee has been employed for four (4) weeks or less, unless it is a short-term project;
- iii. Two (2) weeks if employee has been employed for more than four (4) weeks but not more than one (1) year;
- iv. Four (4) weeks if employee has been employed for more than one year.

2. EMPLOYMENT CONDITIONS FOR LABOUR INTENSIVE WORKS AND CONSTRUCTION

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Gazette No. 42986 of 31 January 2020 (Revised on 17 February 2020), as reproduced below, shall apply to works described in scope of work as being labour-intensive and which are undertaken by unskilled or semi-skilled workers.

This clause contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

2.1 Terminology

- (a) "department" means any department of the State, implementing agent or contractor;
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;

- (c) “workers” means any person working in an elementary occupation on a SPWP;
- (d) “elementary occupation” means any occupation involving unskilled or semi-skilled work;
- (e) “management” means any person employed by a department or implementing agency to administer or execute an SPWP;
- (f) “task” means a fixed quantity of work;
- (g) “task-based work” means work in which a worker is paid a fixed rate for performing a task;
- (h) “task-rated worker” means a worker paid on the basis of the number of tasks completed;
- (i) “time-rated worker” means a worker paid on the basis of the length of time worked.

2.2 Terms of Work

- 2.2.1 Workers on a SPWP are employed on a temporary basis.
- 2.2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.
- 2.2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance ACT 30 of 1966.

2.3 Normal Hours of Work

- 2.3.1 An employer may not set tasks or hours of work that require a worker to work:
 - (a) more than forty hours in any week;
 - (b) on more than five days in any week; and
 - (c) for more than eight hours on any day.
- 2.3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- 2.3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

2.4 Meal Breaks

- 2.4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- 2.4.2 An employer and worker may agree on longer meal breaks.
- 2.4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left

unattended and cannot be performed by another worker. An employer must take

reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

- 2.4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

2.5 Special Conditions for Security Guards

- 2.5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.
- 2.5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

2.6 Daily Rest Period

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

2.7 Weekly Rest Period

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

2.8 Work on Sundays and Public Holidays

- 2.8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.
- 2.8.2 Work on Sundays is paid at the ordinary rate of pay.
- 2.8.3 A task-rated worker who works on a public holiday must be paid –
- (a) the worker's daily task rate, if the worker works for less than four hours;
 - (b) double the worker's daily task rate, if the worker works for more than four hours.
- 2.8.4 A time-rated worker who works on public holiday must be paid –
- (a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
 - (b) double the worker's daily rate of pay, if the worker works of more than four hours on the public holiday.

2.9 Sick Leave

- 2.9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 2.9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's sick leave for every full month that the worker has worked in terms of a contract.
- 2.9.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- 2.9.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- 2.9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 2.9.6 An employer must pay a time-rated worker the worker's daily rate for a day's sick leave.
- 2.9.7 An employer must pay a worker sick pay on the worker's usual payday.
- 2.9.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - (a) absent from work for more than two consecutive days; or
 - (b) absent from work on more than two occasions in any eight-week period.
- 2.9.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 2.9.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Disease Act.

2.10 Maternity Leave

- 2.10.1 A worker may take up to four consecutive month's unpaid maternity leave.
- 2.10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave
- 2.10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 2.10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.

2.10.5 A worker may begin maternity leave –

- (a) four weeks before the expected date of birth; or
- (b) on an earlier date –
 - i. if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - ii. if agreed to between employer and worker; or
- (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

2.10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

2.10.7 A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

2.11 Family Responsibility Leave

2.11.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances –

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of –
 - i. the employee's spouse or life partner;
 - ii. the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

2.12 Statement of Conditions

2.12.1 An employer must give a worker a statement containing the following details at the start of employment –

- (a) the employer's name and address and the name of the SPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the SPWP.

2.12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

2.12.3 An employer must supply each worker with a copy of these conditions of employment.

2.13 Keeping Records

2.13.1 Every employer must keep a written record of at least the following –

- (a) the worker's name and position;
- (b) in the case of a task-rated worker, the number of tasks completed by the worker;
- (c) in the case of a time-rated worker, the time worked by the worker;
- (d) payments made to each worker.

2.13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

2.14 Payment for the Labour Intensive Component of the Works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

2.14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

2.14.2 A task-rated worker will only be paid for tasks that have been completed.

2.14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

2.14.4 A time-rated worker will be paid at the end of each month.

2.14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

2.14.6 Payment in cash or by cheque must take place –

- (a) at the workplace or at a place agreed to by the worker;
- (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
- (c) in a sealed envelope which becomes the property of the worker.

2.14.7 An employer must give a worker the following information in writing –

- (a) the period for which payment is made;
- (b) the numbers of tasks completed or hours worked;
- (c) the worker's earnings;

- (d) any money deducted from the payment;
- (e) the actual amount paid to the worker.

2.14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.

7.14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

2.15 Deductions

2.15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

2.15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

2.15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.

2.15.4 An employer may not require or allow a worker to –

- (a) repay any payment except an overpayment previously made by the employer by mistake;
- (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
- (c) pay the employer or any other person for having been employed.

2.16 Health and Safety

2.16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

2.16.2 A worker must –

- (a) work in a way that does not endanger his/her health and safety or that of any other person;
- (b) obey any health and safety instruction;
- (c) obey all health and safety rules of the SPWP;

- (d) use any personal protective equipment or clothing issued by the employer;
- (e) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

2.17 Compensation for Injuries and Diseases

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

2.18 Termination

- 2.18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 2.18.2 A worker will not receive severance pay on termination.
- 2.18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the manager the employer in advance to allow the employer to find a replacement.
- 2.18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available of the balance for the 24-month period.
- 7.18.5 A worker who does not attend required training events, without good reason will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

2.19 Certificate of Service

On the termination of employment, a worker is entitled to a certificate stating –

- (a) the worker's full name;
- (b) the name and address of the employer;
- (c) the SPWP on which the worker worked;
- (d) the work performed by the worker;
- (e) any training received by the worker as part of the SPWP;
- (f) the period for which the worker worked on the SPWP;
- (g) any other information agreed on by the employer and worker.

3. LABOUR INTENSIVE COMPETENCIES OF SUPERVISORY AND MANAGEMENT STAFF

Established contractors shall only engage supervisory and management staff in labour-intensive works who have either completed or are registered for training towards, the skills programme outlined in Table 1.

Emerging contractors shall have personally completed or be registered on a skills programme for the NQF Level 2 unit standard. All other site supervisory staff in the employ of emerging contractors must have completed or be registered on a skills programme for, the NQF Level 2 unit standards or NQF Level 4 unit standards.

TABLE 1: SKILLS PROGRAMME FOR SUPERVISORY AND MANAGEMENT STAFF

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader/ supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman/ supervisor	4	Implement labour-intensive Construction Systems and Techniques	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent/ Manager (i.e the contractor's most senior representative that is resident on the site.	5	Manage Labour Intensive Construction Processes	Skills Programme against this single unit standard

Details of these skills programmes may be obtained from the CETA ETQA manager:

Tel: (011) 265-5900

4. EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR-INTENSIVE WORKS

4.1 Requirements for the Sourcing and Engagement of Labour

4.1.1 Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

4.1.2 The rate pay set for the SPWP shall be agreed upon between the Contractor and the Employees and it shall be per task or per day.

4.1.3 Tasks established by the contractor must such that:

- (a) the average worker completes 5 tasks per week in 40 hours or less; and
- (b) the weakest worker completes 5 tasks per week in 55 hours or less.

4.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 4.1.3.

4.1.5 The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

- (a) where the head of the household has less than a primary school education;
- (b) that have less than one full time person earning an income;
- (c) where subsistence agriculture is the source of income;
- (d) those who are not in receipt of any social security pension income.

4.1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:

- (a) 45 % women;
- (b) 35 % youth who are between the ages of 18 and 35; and
- (c) 2 % on persons with disabilities.

4.2 Specific Provisions Pertaining to SANS 1914-5

4.2.1 Definitions

Targeted labour: Unemployment persons who are employed as local labour on the project.

4.2.2 Contract participation goals

4.2.2.1 there is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

4.2.2.2 The wages and allowances used to calculate the contract participation goal shall, with respect to both time-related and task rated workers, comprise all wages paid, and any training allowance paid in respect of agreed training

programmes.

4.2.3 Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

4.2.4 Variations to SANS 1914-5

4.2.4.1 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.

4.2.4.2 The schedule referred to in 4.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of formal training provided to targeted labour.

4.3 Training of Targeted Labour

4.3.1 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.

4.3.2 The cost of the formal training of targeted labour, shall be measured and paid for in the schedule of quantities of this contract document.

4.3.3 The contractor shall do nothing to dissuade targeted labour from participating in training programmes and shall take all reasonable steps to ensure that each beneficiary is provided with two days of formal training for every 22 days worked.

4.3.4 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 4.3.3 above.

4.3.5 Proof of compliance with the requirements of 4.3.2 to 4.3.4 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

5. COMMUNITY LIAISON OFFICER

5.1 The successful tenderer shall enter into an agreement with the Ward Councillor/Ward Committee whereby the Ward Councillor shall provide to the Contractor the following if necessary:

a) Community Liaison Officers (CLO's) for liaison with the recipient community, who as part of their duties will also act as a Labour Desk Officers (LDO's) for labour recruitment.

b) Duties of the Community Liaison Officer

- i. To be available on site daily between the hours of 07h30 and 16:30 and at other times as the need arises. His/her normal working day will extend from 07h30 morning until 16h30 in the afternoon.
- ii. To determine, in consultation with the contractor, the needs of the temporary labour for relevant skills training. He/she will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.
- iii. To communicate daily with the contractor and the engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- iv. To assist in and facilitate in the recruitment of suitable temporary labour and the establishment of a "labour desk".
- v. To attend all meetings in which the community and/or labour are present or are required to be represented.
- vi. To assist in the identification, and screening of labourers from the community in accordance with the contractor's requirements.
- vii. To inform temporary labour of their conditions of temporary employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- viii. To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- ix. To keep a daily written record of his/her interviews and community liaison.
- x. To attend monthly site meetings to report on labour and other relevant matters.
- xi. All such other duties as agreed upon between all parties concerned.
- xii. To submit monthly returns regarding community liaison

5.2 The agreement shall make provision for the payment by the Contractor to the CLO's. The actual payment of the CLO's will be decided on the award of the Contract.

5.3 Three CLO's shall be appointed. If the project spans over more than one Ward, the relevant Ward Councillors shall agree on 3 CLO's to be appointed by the Contractor. Should no agreement be found as envisaged, the relevant Project Manager together with the Ward Councillors and the "Council", or their nominees, will interview prospective appointees and in their discretion appoint such CLO's.

The total monthly sum paid to all CLO's shall not exceed the amount allowed for in paragraph 5.2.

5.4 Should the Contractor experience any difficulties with the community, these difficulties shall immediately be brought to the attention of the "Council"/Project Manager who shall arrange a meeting with the relevant Ward Councillor(s) and the CLO to resolve such difficulties.

5.5 The main Contractor shall ensure that any Sub-Contractor he may appoint shall adhere to these conditions but also subject to the proviso's applicable to the duration of such sub-contract.

5.6 Should any of the above conditions be less favourable than any Bargaining Council Agreement or Act applicable to the Contractor, the more favourable condition will apply.

C3.4.5 Existing services

There are known existing services, e.g. sewers, water pipeline, railway lines, electrical lines, roads, etc.

C3.4.6 Site establishment

1. Contractor's Camp site

The contractor shall provide a suitable site for his camp and for accommodating the work force. The choice of the site for the establishment of the camp, offices and the layout thereof, shall be approved.

The camp site shall be cleared and grubbed and properly fenced with a security fence around the perimeter. The Contractor is to provide his own security at the camp or on the site if required, at his own expense.

After completion of the contract, the Contractor shall remove all his temporary buildings, plant, and equipment. The site shall be made good and be left in a neat and tidy condition before a certificate of completion shall be issued.

2. Water Supply

The Contractor shall make his own arrangements for potable and construction water.

3. Power Supply

The Contractor shall make his own arrangements for power supply.

4. Ablution Facilities

The Contractor shall, at each construction area, provide sufficient portable chemical latrine units. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the Engineer. No separate payment shall be made for this requirement and the costs thereof shall be deemed to be included in the rates billed for the contractor's time-related obligations.

5. Cellular Telephone

It is a requirement of the contract that the contractor shall equip site agent(s) with cellular telephone(s) to allow for effective communication between the contractor's supervisory personnel and the Engineer's supervisory staff. All costs associated with the provision of phones for the contractor's personnel and Engineer's supervisory staff shall be deemed to be included in rates billed for time-related charges.

6. Site Facilities required by the Engineer

Site office (at each Construction Area) complete with sufficient lighting and power points.

A heater and fan or air-conditioning unit capable of both heating in summer and cooling in winter must be installed in the Engineer's Office

Two desks, ten chairs, one conference table and two steel filing cabinets.

Carports for his exclusive use.

Each carport 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 20m² 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.

An ablution unit for his exclusive use.

Cellphone

Subject to satisfactory transmission and reception quality in the vicinity of the Site, the Contractor shall provide a cellphone and associated service contracts from a reputable cellular service provider for the exclusive use of the Engineer and his staff. The Contractor shall further insure the cellphones against loss or damage from whatever cause and shall ensure that all cellphone accounts are promptly paid on the due dates for payment. The Contractor shall further, at his own cost, ensure the prompt repair of all cellphone/s provided under this clause, when reasonably required by the Engineer.

Computer equipment: One Laptop

The Contractor shall provide computer equipment on site for the exclusive use of the Engineer and his staff. All computer hardware shall be provided complete with the requisite connecting cables and all interfacing devices and software necessary for its efficient operation as an integral system.

A measuring wheel and a 5m steel tape. These shall be kept by the Contractor and must be issued to the Engineer / Engineer's Representative as and when required to do so.

The Engineer does not require housing for personnel or laboratory facilities.

C3.5 MANAGEMENT

C3.5 MANAGEMENT

1. Construction Programme

The Contractor shall submit within the period stated in the Contract Data a suitable and realistic construction programme for the consideration of the Engineer.

The programme shall be in the form of a Gantt chart and shall include the following details:

- A work breakdown structure, identifying the major activity groups.
- For each activity group further details shall be provided with regard to the scheduled start and end dates of individual activities.
- The linkages between activities shall be clearly indicated and the logical network upon which the programme is based shall be separately submitted to the Engineer if requested. Any constraints shall be classified as being time-related or resource-related.
- The critical path(s) shall be clearly indicated and floats on non-critical activities shall be shown.
- The Contractor shall indicate the working hours per day, night, week and month allowed for in the programme.
- Where relevant the Contractor shall state the production rates for key activities, e.g. earthworks, etc.

Together with the programme as detailed above the contractor shall submit to the Engineer a cash flow projection, indicating projected monthly invoice amounts. The cash flow projection shall be updated at monthly intervals to reflect actual payments to date and anticipated further payments.

The programme will be reviewed at the monthly site meetings at which the Contractor shall provide sufficient detail that will allow the comparison of completed work per activity that has fallen behind. The updated programme shall be submitted to the Engineer at least two days prior to the monthly meetings.

If the programme has to be revised by reason of the Contractor falling behind his programme, he shall produce a revised programme showing how he intends to regain lost time in order to ensure completion of the Works within the time for completion as defined in Clause 5.6 of the General Conditions of Contract or any granted extension of time. Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by providing more labour and plant on site, or by using the available labour and plant on site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit the programme or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as provided in Clause 55 of the General Conditions of Contract.

The approval by the Engineer of any programme shall have no contractual significance other than that the Engineer will be satisfied that the work is carried out according to such programme and that the Contractor undertakes to carry out the work in accordance with the programme. It shall not limit the right of the Engineer to instruct the Contractor to vary the programme if required by circumstances. The Contractor is also referred to Clause 5.7 of the General Conditions of Contract when drawing up his programme.

2 Sequence of the works

The sequence of the works will be in accordance with the approved programme. The works shall be programmed to allow for the installation of the pipelines, the construction of the valve chambers and pipe jacking to suit the budgeted cash flow and construction period.

3. Accommodation of traffic

The following contain the Employer's general requirements for accommodating the traffic during construction:

The travelling public shall have the right of way on public roads and the contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

Failure to maintain road signs, warning signs, etc, in a good condition shall constitute ample reason for the Engineer to bring the works to a stop until the road signs, etc, have been repaired to his satisfaction.

The contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual Volume 2 Chapter 13.

The contractor shall submit proposals in connection with directional signs to the Engineer for approval prior to construction.

Sufficient signage shall be provided, erected and relocated as necessary by the contractor to re-route traffic onto the deviations.

4. Extension of time on account of abnormal rainfall

1 Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and /or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.

Method 1 and 2 are defined and described in the Contract Data.

In the case where Method 2 applies the following wording shall be included:

Extension of time resulting from abnormal rainfall or other forms of inclement weather for items on the critical path of the programme shall be calculated according to the requirements of Method 2 (Critical-path method). The value of “n” working days per calendar month as specified in this clause shall be two (2) working days. If no abnormal rainfall or other inclement weather periods occur during a specific calendar month (or months), the n-values as specified shall not be taken as accumulating over the contract period. If the n-days allowed for in the programme of work are not taken up by standing time due to abnormal rainfall or inclement weather conditions, they will fall away and will not be considered in extension of time claims which may arise later during the contract period.

A working day, or portion thereof, shall be considered as lost when the Engineer agrees that no work could have been undertaken on any item falling within the critical path. The contract extension of time arising from inclement weather shall be agreed upon between the Engineer’s and the contractor’s representatives. The days upon shall be recorded in the minutes of the monthly site meetings

5. Community participation

Community participation consists of engagement of Project Steering Committees (PSC). A PSC will be established for the project by the Ward Councillor. The functions of the PSC will be to:

- Assist in monitoring the project.
- Ensure that the community provide assistance to the contractor to ensure that he can execute the contract in accordance with the specifications and within time.
- Encourage the community to participate in the Labour-Intensive Construction.
- Identify skills, skilled personnel and suppliers in the towns / townships.

The PSC will not have the power to:

- Give any instructions to the contractor, except through the Engineer.
- Become involved in the daily operations of the contractor or interfere with the contract works.

A monthly meeting will be held with the PSC to discuss relevant matters. The site agent and

resident Engineer will attend the meetings. The contractor will have to report on progress, deviations from the programme, financial matters, community related aspects, general problems and co-operation at the meeting. The PSC members will not receive any remuneration for attending, and they must provide their own transport.

C3.6 **REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL
HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY
SPECIFICATION**

REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY SPECIFICATION**INDEX**

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- 1.4 Appointment of Subcontractor
- 1.5 Appointment of Construction Supervisor
- 1.6 Appointment of Excavation Work Supervisor
- 1.7 Appointment of Temporary Works Supervisor
- 1.8 Appointment of Ladder Inspector
- 1.9 Appointment of Risk Assessor
- 1.10 Appointment of Scaffolding Supervisor
- 1.11 Appointment of Stacking and Storage Supervisor

Annexure 1 Template - Application for a permit to do construction work

Annexure 2 Template - Notification of construction work

Annexure 3 Template - Medical Certificate of Fitness

Annexure B Identified Health and Safety Hazards

C3.6 REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY SPECIFICATION**1. SCOPE****1.1 Scope of Specification**

This specification covers the principles, duties, responsibilities, liabilities, and requirements applicable in respect of health and safety in the work place on construction work.

This document constitutes the Employers' Health and Safety Specification as defined in the Construction Regulations, 2014 of the Occupational Health and Safety Act (Act 85 of 1993).

This specification also applies to tunneling although the minimum requirements for tunneling are contained in the Mines Health and Safety Act. This specification, however, does not apply to underground construction at this point in time as covered by the Mines Health and Safety Act, 1996 (Act 29 of 1996) as amended.

1.2 Philosophy

Some of the terms and requirements of the Occupational Health and Safety Act and its Regulations may be novel to Contractors. This specification has therefore been prepared as an instructive guideline without being prescriptive, constraining the competitive advantage or interfering with the legal obligations of the responding parties.

The Health and Safety Plan required in terms of this specification may also be novel to Contractors. This specification has therefore been prepared in such a way to allow Contractors to employ the services of specialist consultants for the preparation and implementation of the same during the construction of the Works.

Health and safety can only be assured on construction works if all stakeholders buy into the Health and Safety plan and when the health and safety of all is an integrated line accountability of all management staff and workers on site. The management systems that are provided for in this specification are to enable the performance statistics of health and safety to be regularly captured, the intention of these systems is not to achieve health and safety by policing the conduct of the Contractor's employees.

In addition to ensuring health and safety, the intention of the management system is rather to commercially exploit the benefit of doing things right the first time that goes hand in hand with top health and safety performance. Accidents and injuries never pay. The loss of production and the cost of injuries, however, relatively infrequent they may be, far outweigh the effort required to maintain top health and safety on construction.

The specification accordingly provides for:

- a) Independent periodic audits to ensure an unbiased pursuit of health and safety,
 - b) Follow-up audits to ensure the implementation of prescribed remedial actions,
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- c) The review of the efficiency and effectiveness of the Contractor's Health and Safety Plan,
- d) The preparation of regular reports of inspections and accidents to enable the tracking of changes in health and safety performance,
- e) The monitoring of conditions on a continuously pro-active basis to ensure that hazards are without delay identified, assessed and remedied should it threaten the health and safety of persons and property,
- f) Ad hoc inspections to ensure that health and safety is pursued with dedication and not out of intimidation or coercion, and
- g) Development of all aspects of the Contractor's Health and Safety Plan.

The fundamental intention of this specification is that the preservation of health and safety will become a core value of all involved during the construction of the Works.

This Specification does not require the preparation of an unduly extensive or complex risk assessment. The Contractor should rather prepare a risk assessment which takes the size of the project, the size of the Contractor's organization, the conditions of the workplace and the nature, complexity and significance of the hazards likely to be encountered during the execution of the Works into account.

2. INTERPRETATIONS

2.1 Supporting specifications

Where this specification is required for a project, the following specifications (as amended) shall, inter alia, form part of the contract document:

- a) Occupational Health and Safety Act, 1993, and its regulations which shall include, but shall not be limited to the following:
 - Construction Regulations, 2014,
 - General Safety Regulations,
 - General Administrative Regulations, 1996,
 - Driven Machinery Regulations, 1988,
 - Electrical Installation Regulations, 1992,
 - Electrical Machinery Regulations, 1988,
 - Environmental Regulations for Workplaces, 1987, and
 - Facilities Regulations, 1990.
- b) Clauses 4.1, 4.3.1, 4.3.3 and 4.3.6 of the Contract Data.

2.2 Application

This specification contains clauses that are applicable to the occupational health and safety requirements of the Occupational Health and Safety Act, 1993 and its Regulations, in particular the Construction Regulations, 2014 promulgated on 07 February 2014 in terms of Section 43 of the Act.

2.3 Definitions

In the Contract (as defined in clause 1.1.1 of the Conditions of Contract) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) “Assistant Construction Supervisor” means a competent person appointed in accordance with regulation 8.(2) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (b) “Bulk Mixing Plant Supervisor” means a competent person appointed in accordance with regulation 20.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (c) “Construction Health and Safety Officer” means a competent person appointed in accordance with regulation 8.(5) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (d) “Construction Supervisor” means a competent person appointed on a full-time basis in accordance with regulation 8.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (e) “Construction Vehicles & Mobile Plant Inspector” means a competent person appointed in accordance with regulation 23.(1)(k) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (f) “Contractor” means the natural or juristic person or partnership whose tender has been accepted by or on behalf of the Employer and, who is defined as the Principal Contractor in the Construction Regulations, 2014.
 - (g) “Demolition Work Supervisor” means a competent person appointed in accordance with regulation 14.(1) of the Construction Regulations, 2014, in writing by the Contractor with written notification to the Engineer.
 - (h) “Employer’s Designer” means the natural or juristic person or partnership named in regulation 5 of Construction Regulations, 2014, or any other natural or juristic person or partnership appointed from time to time by the Employer for the design of the portion of the Permanent Works which the Employer is responsible to design in terms of this Contract.
 - (i) “Contractor’s Designer” means the natural or juristic person or partnership appointed from time to time by the Contractor and notified in writing to the Engineer and Employer for the design of the portion of the Permanent Works which the Contractor is responsible to design in terms of this Contract, and for the design of the Temporary Works.
 - (j) “Electrical Temporary Installation Inspector” means a competent person appointed in accordance with regulation 24.(d) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (k) “Employer” means the natural or juristic person or partnership for whom the Works are to be executed, who is named as the Employer in the Conditions of Contract and who is known as the “Client”, in the Occupational Health and Safety Act, 1993 and its regulations.
 - (l) “Engineer” means the natural or juristic person or partnership named as the Engineer in the Conditions of Contract and appointed by the Employer to act as the Engineer in terms of this Contract.
 - (m) “Engineer’s Representative” means the person appointed by the Engineer in terms of Clause 3.2 of the Conditions of Contract.
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- (n) "Excavation Supervisor" means a competent person appointed in accordance with regulation 13.(1)(a) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (o) "Explosive Actuated Fastening Devices Issuer" means a competent person appointed in accordance with regulation 21.(2)(g)(i) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (p) "Fall Protection Developer" means a competent person appointed in accordance with regulation 10.(1)(a) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (q) "Fire Extinguisher Inspector" means a competent person appointed in accordance with regulation 29.(h) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (r) "Temporary Works Supervisor" means a competent person appointed in accordance with regulation 12.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (s) "Hazard" means any object, action or condition that can potentially harm the health and safety of persons or property.
 - (t) "Health and Safety Consultant" means the natural or juristic person or partnership appointed by the Contractor to assist in any matters related to health and safety on the construction site.
 - (u) "Health and safety plan" means a site, activity or project specific documented plan in accordance with the client's health and safety specification.
 - (v) "Health and safety specification" means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work
 - (w) "Health and Safety Representative" means the person/s designated in accordance with section 17 of the Occupational Health and Safety Act.
 - (x) "Ladder Inspector" means a competent person appointed in accordance with regulation 13 of the General Safety Regulations, in writing by the Contractor, with written notification to the Engineer.
 - (y) "Material Hoist Inspector" means a competent person appointed in accordance with regulation 19.(8)(a) of the Construction Regulations, 2014 in writing by the Contractor, with written notification to the Engineer.
 - (z) "Professional Engineer" means any person employed from time to time by either the Employer or Contractor who holds registration as either a Professional Engineer or Professional Certificated Engineer under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
 - (aa) "Professional Technologist" means any person employed from time to time by either the Employer or Contractor who holds registration as a Professional Technologist under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
 - (bb) "Risk" means the likely occurrence and impact of a hazard.
 - (cc) "Risk Assessment" means a programme carried out to identify and evaluate the likely occurrence and impact of all hazards.
 - (dd) "Risk Assessor" means a competent person appointed in accordance with regulation 9.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
 - (ee) "Safety Agent" means a competent natural or juristic person or partnership named in regulation 5.(7) of the Construction Regulations, 2014, or any other person appointed from time to time
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by the Employer and notified in writing to the Contractor to act on behalf of the Employer for the purposes of this specification.

- (ff) “Scaffolding Supervisor” means a competent person appointed in accordance with regulation 16.(2) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (gg) “Stacking Supervisor” means a competent person appointed in accordance with regulation 28.(a) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (hh) “Subcontractor” means the natural or juristic person or partnership who is appointed by the Contractor with prior consent of the Engineer to execute certain tasks associated with the Works and who is also an employer as defined in section 1 of the Occupational Health and Safety Act.
- (ii) “Suspended Platforms Supervisor” means a competent person appointed in accordance with regulation 17.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.

2.4 Duties, responsibilities and liabilities

2.4.1 Principal Parties

This section covers the duties, responsibilities and liabilities of the following principal parties:

- Employer
- Employer’s Safety Agent
- Contractor
- Subcontractor
- Employer’s Designer
- Contractor’s Designer

The duties and responsibilities of the various principal parties are briefly summarized below (the numbers indicated correspond to the applicable regulation number in the Construction Regulations, 2014). The intention of the summary is not to replace the Regulations but is included for indicative purposes. The liabilities of each party are also shown.

a) Employer

- (1) The 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);
 - c) provide the designer with the health and safety specification contemplated in paragraph (b);
 - d) ensure that the designer takes the prepared health and safety specification into consideration during the design stage;
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- e) ensure that the designer carries out all responsibilities contemplated in regulation 6;
- f) include the health and safety specification in the tender documents;
- g) ensure that potential principal contractors submitting tenders have made adequate provision for the cost of health and safety measures;
- h) ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely;
- i) take reasonable steps to ensure co-operation between all contractors appointed by the client to enable each of those contractors to comply with these Regulations;
- j) ensure before any work commences on a site that every principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993);
- k) appoint every principal contractor in writing for the project or part thereof on the construction site;
- l) discuss and negotiate with the principal contractor the contents of the principal contractor's health and safety plan contemplated in regulation 7(1), and must thereafter finally approve that plan for implementation;
- m) ensure that a copy of the principal contractor's health and safety plan is available on request to an employee, inspector or contractor;
- n) take reasonable steps to ensure that each contractor's health and safety plan contemplated in regulation 7(1)(a) is implemented and maintained;
- o) ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
- p) ensure that a copy of the health and safety audit report contemplated in paragraph (o) is provided to the principal contractor within seven days after the audit;
- q) stop any contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site;
- r) where changes are brought about to the design or construction work, make sufficient health and safety information and appropriate resources available to the principal contractor to execute the work safely; and
- s) ensure that the health and safety file contemplated in regulation 7(1)(b) is kept and maintained by the principal contractor.

(2) Where a client requires additional work to be performed as a result of a design change or an error in construction due to the actions of the client, the client must ensure that sufficient safety information and appropriate additional resources are available to execute the required work safely.

(3) Where a fatality or permanent disabling injury occurs on a construction site, the client must ensure that the contractor provides the provincial director with a report contemplated in section 24 of the Act, in accordance with regulations 8 and 9 of the General Administrative Regulations, 2013, and that the report includes the measures that the contractor intends to implement to ensure a safe construction site as far as is

reasonably practicable.

(4) Where more than one principal contractor is appointed as contemplated in sub-regulation (1)(k), the client must take reasonable steps to ensure co-operation between all principal contractors and contractors in order to ensure compliance with these Regulations.

(5) Where a construction work permit is required as contemplated in regulation 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative, and where such an appointment is made the duties that are imposed by these Regulations upon a client, apply as far as reasonably practicable to the agent so appointed.

(6) Where notification of construction work is required as contemplated in regulation 4(1), the client may, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative, and where such an appointment is made the duties that are imposed by these Regulations upon a client, apply as far as reasonably practicable to the agent so appointed: Provided that, where the question arises as to whether an agent is necessary, the decision of an inspector is decisive.

(7) An agent contemplated in sub-regulations (5) and (6) must—

- a) manage the health and safety on a construction project for the client; and
- b) be registered with a statutory body approved by the Chief Inspector as qualified to perform the required functions;

(8) When the chief inspector has approved a statutory body as contemplated in sub-regulation (7)(b), he or she must give notice of that approval in the Gazette

In terms of Clause 4.3.3 of the Contract Data, the Contractor accepts sole liability as mandatory for due compliance with the Occupational Health and Safety Act, 1993 and all its regulations including the Construction Regulations, 2014. The Employer will only be responsible for the duties imposed on the Employer in terms of the Construction Regulations, 2014 as listed above.

b) Employer's Safety Agent

Where the Employer decides to appoint an agent in accordance with regulation 5.(5) of the Construction Regulations, 2014, the duties and responsibilities as imposed by these regulations upon the Employer shall as far as reasonably practicable apply to his Safety Agent.

(c) A principal contractor must—

- (a) provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
 - (b) open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the client, the client's agent or a contractor; and
 - (c) on appointing any other contractor, in order to ensure compliance with the provisions of the Act—
 - (i) provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications contemplated in regulation 5(1)(b) pertaining to the construction work which has to be performed;
 - (ii) ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - (iii) ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
 - (iv) ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
 - (v) appoint each contractor in writing for the part of the project on the construction site;
 - (vi) take reasonable steps to ensure that each contractor's health and safety plan contemplated in sub-regulation (2)(a) is implemented and maintained on the construction site;
 - (vii) ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
 - (viii) stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
 - (ix) where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely; and
 - (x) discuss and negotiate with the contractor the contents of the health and safety plan contemplated in sub-regulation (2)(a), and must thereafter finally approve that plan for implementation;
 - (d) ensure that a copy of his or her health and safety plan contemplated in paragraph (a), as well as the contractor's health and safety plan contemplated in sub-regulation (2)(a), is available on request to an employee, an inspector, a contractor, the client or the client's agent;
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- (e) hand over a consolidated health and safety file to the client upon completion of the construction work and must, in addition to the documentation referred to in sub-regulation (2)(b), include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- (f) in addition to the documentation required in the health and safety file in terms of paragraph (c)(v) and sub-regulation (2)(b), include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done; and
- (g) ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

(d) A contractor must prior to performing any construction work—

- a) provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the client's health and safety specification contemplated in regulation 5(1)(b) and provided by the principal contractor in terms of sub-regulation (1)(a), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the contractor as work progresses;
- b) open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the client, the client's agent or the principal contractor;
- c) before appointing another contractor to perform construction work be reasonably satisfied that the contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- d) co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the Act; and
- e) as far as is reasonably practicable, promptly provide the principal contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

(1) Where a contractor appoints another contractor to perform construction work, the duties determined in sub-regulation (1)(b) to (g) that apply to the principal contractor apply to the contractor as if he or she were the principal contractor.

(2) A contractor must take reasonable steps to ensure co-operation between all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations.

- (3) No contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.
- (4) A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.
- (5) A contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor;.

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

(e) Designer (Employer's Designer or Contractor's Designer)

To ensure compliance with the Construction Regulations, 2014, the Designer (as defined in the Construction Regulations, 2014) must:

- (a) ensure that the applicable safety standards incorporated into these Regulations under section 44 of the Act are complied with in the design;
 - (b) take into consideration the health and safety specification submitted by the client;
 - (c) before the contract is put out to tender, make available in a report to the client—
 - (i) all relevant health and safety information about the design of the relevant structure that may affect the pricing of the construction work;
 - (ii) the geotechnical-science aspects, where appropriate; and
 - (iii) the loading that the structure is designed to withstand;
 - (d) inform the client in writing of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered;
 - (e) refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons, which can be avoided by modifying the design or by substituting materials;
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- (f) take into account the hazards relating to any subsequent maintenance of the relevant structure and must make provision in the design for that work to be performed to minimize the risk;
 - (g) when mandated by the client to do so, carry out the necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design: Provided that if the designer is not so mandated, the client's appointed agent in this regard is responsible to carry out such inspections;
 - (h) when mandated as contemplated in paragraph (g), stop any contractor from executing any construction work which is not in accordance with the relevant design's health and safety aspects: Provided that if the designer is not so mandated, the client's appointed agent in that regard must stop that contractor from executing that construction work;
 - (i) when mandated as contemplated in paragraph (g), in his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use, and issue a completion certificate to the client and a copy thereof to the contractor; and
 - (j) during the design stage, take cognisance of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure.
- (2) The designer of temporary works must ensure that—
- a) all temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
 - b) the designs of temporary works are done with close reference to the structural design drawings issued by the contractor, and in the event of any uncertainty consult the contractor;
 - c) all drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
 - d) the loads caused by the temporary works and any imposed loads are clearly indicated in the design.
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The Employer's Designer shall only accept responsibility to comply with the Construction Regulations, 2014 for that portion of the Permanent Works which the Employer is responsible to design in terms of the Contract.

The Contractor's Designer shall accept sole responsibility and liability to comply with the Construction Regulations, 2014 for that portion of the Permanent Works for which the Contractor is responsible to design in terms of the Contract as well as the design of the Temporary Works.

2.4.2 Secondary Parties

This section covers the duties, responsibilities and liabilities of the following secondary parties:

- Construction Health and Safety Officer
- Contractor's Employees
- Fall Protection Developer
- Health and Safety Consultant
- Health and Safety Representative
- Risk Assessor

a) Construction Health and Safety Officer

The Construction Health and Safety Officer will act as Health and Safety advisor to the site management staff, ensuring the integrity of the Safety management System and Plan and its implementation. The Construction Health and Safety Officer can therefore never take over the line management responsibilities for safe work practices.

The Contractor is responsible for the development of the position outcomes descriptors for the Construction Health and Safety Officer. This documentation shall be available on site for auditing purposes.

The Construction Health and Safety Officer shall if given an opportunity, provide an input into the Contractor's Health and Safety Plan.

b) Contractor's Employees

All employees will be responsible for safety on the construction site and the work place as prescribed in section 14 of the Occupational Health and Safety Act, 1993 and briefly summarized as follows:

- Take reasonable care for the health and safety of himself and of other persons who may be affected by his acts,

- Co-operate with his employer with regards to health and safety to ensure that his employer complies with requirements imposed on him,
- Obey the health and safety rules and procedures laid down by his employer,
- Report any unsafe or unhealthy situation to his employer or to the health and safety representative for his workplace,
- Immediately report any incident in which he was involved which has caused an injury to himself or others, and
- Assist in inquiries and incident investigations.

No employee shall intentionally or recklessly interfere with, damage or misuse anything which is in the interest of health and safety

c) Fall Protection Developer

The Fall Protection Developer will be responsible for the preparation and maintenance of a fall protection plan to be implemented by the Contractor, in such a manner to ensure compliance with regulation 10 of the Construction Regulations, 2014.

d) Health and Safety Consultant

The Health and Safety Consultant shall assist the Contractor in any health and safety matters on the Works for which he is appointed.

e) Health and Safety Representative

The Health and Safety Representative shall fulfill the duties as set out in section 18 of the Occupational Health and Safety Act, (Act 85 of 1993). A health and safety representative shall not incur any civil liability by reason of the fact only that he failed to do anything which he may do or is required to do in terms of the Act.

f) Risk Assessor

The Risk Assessor shall facilitate the risk assessment process of the Contractor or Subcontractor. The Risk Assessor shall be responsible for the compilation and implementation of a management plan towards the continuous mitigation of identified risks to as low as is reasonable practicable.

2.4.3 Supervisors, Inspectors and Issuers

This section covers the duties, responsibilities and liabilities of the following Supervisors, Inspectors and Issuers likely to be found on the Works:

a) Bulk Mixing Plant Supervisor

The Bulk Mixing Plant Supervisor shall be required to ensure compliance with regulation 20 of the Construction Regulations, 2014. In addition, he shall fulfill the following duties and responsibilities:

- Manage the day to day operation of a bulk mixing plant,
- Be responsible for the maintenance of the bulk mixing plant,
- Be able to identify developing defects and hazardous situations,
- Act as the Occupational Health and Safety Representative at the bulk mixing plant, and
- Take responsibility for the safety of the personnel at the bulk mixing Plant.

The Bulk Mixing Plant Supervisor will have the authority to stop operation of the plant should any hazardous situation require it.

b) Construction Supervisor

The Construction Supervisor shall be responsible for supervising the construction work inclusive of the implementation and maintenance of safe work practices.

c) Construction Vehicle & Mobile Plant Inspector

The Construction Vehicle and Mobile Plant Inspector will ensure the safety of all construction vehicles and plant in such a manner to ensure compliance with regulation 23 of the Construction Regulations, 2014. The inspector will also be responsible for the regular inspection of all vehicles and plant and the recording of his findings. The Contractor shall ensure that proof of such is available on site for auditing purposes.

d) Demolition Work Supervisor

The Demolition Work Supervisor will supervise and control all demolition work on the Works in such a manner to ensure compliance with regulation 14 of the Construction Regulations, 2014. The supervisor will be responsible for all administration related to the demolition works. The Contractor shall ensure that proof of such is available on site for auditing purposes.

e) Electrical Temporary Installation Inspector

The Electrical Temporary Installation Inspector will control all temporary electrical installations on the Works to ensure compliance with regulation 24 of the Construction Regulations, 2014, the Electrical Installations Regulations, 1992 and SANS 0142. The Contractor shall ensure that proof of such is available on site for auditing purposes.

f) Excavation Work Supervisor

The Excavation Work Supervisor will supervise all excavation work on the Works in such a manner to ensure compliance with regulation 13 of the Construction Regulations, 2014 and shall in particular ensure that every excavation is inspected:

- On a daily basis before each shift,
- After every blasting operation,
- After an unexpected fall of ground,
- After substantial damage to supports, and
- After rains.

The Contractor shall ensure that proof of such is available on site for auditing purposes.

g) Explosive actuated fastening devices Issuer

The Explosive actuated fastening devices issuer will control the issuing and collection of explosive tools, cartridges and nails or studs to ensure compliance with regulation 21 of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

h) Fire Extinguisher Inspector

The Fire Extinguisher Inspector will be responsible for the operation and inspection of all firefighting equipment on the Works to ensure compliance with regulation 29 of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

i) Temporary Works Supervisor

The Temporary Works Supervisor will supervise all temporary works operations and will see to it that temporary works erectors, operators and inspectors are competent to carry out their works to ensure compliance with regulation 12 of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

j) Ladder Inspector

The Ladder Inspector will be responsible for the regular inspection and recording of his/her findings of all ladders on the Works and to ensure compliance with regulation 13 of the General Safety Regulations. The Contractor shall ensure that proof of such is available on site for auditing purposes.

k) Material Hoist Inspector

The Material Hoist Inspector will be responsible for the daily inspection of material hoists or similar machinery and to ensure Works to ensure compliance with regulation 19 of the Construction Regulations, 2014. The inspector must have experience pertaining to the erection and maintenance of all hoists on the Works. The inspector must be able to determine the serviceability of the entire material hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices. The Contractor shall ensure that proof of such is available on site for auditing purposes.

l) Scaffolding Supervisor

The Scaffolding Supervisor will be required to supervise all scaffolding work operations carried out on the Works and to ensure compliance with regulation 16 of the Construction Regulations, 2014 as well as ensure compliance with applicable SANS 085 specifications. The Contractor shall ensure that proof of such is available on site for auditing purposes.

m) Stacking Supervisor

The Stacking Supervisor shall supervise the stacking and storage of all articles on site and shall be responsible to ensure compliance with regulation 28 of the Construction Regulations, 2014.

n) Suspended Platform Supervisor

The Suspended Platform Supervisor will supervise all suspended platform work operations carried out on the Works and to ensure compliance with regulation 17 of the Construction Regulations, 2014. The supervisor will also see to it that all suspended platform erectors, operators and inspectors are competent to carry out their work. The Contractor shall ensure that proof of such is available on site for auditing purposes.

3. GENERAL REQUIREMENTS OF HEALTH AND SAFETY PLAN**3.1 General**

It will be expected from the Contractor to include in his safety plan method statements on how to accomplish the requirements relating to the Construction Regulations, 2014 and related incorporated standards and regulations.

Contractors should describe how their safety management systems will work and what control procedures they plan on using to ensure safety on the construction site

The following generic aspects should be covered in their safety plan

- What administrative procedures the Contractor envisages to use in the implementation and maintenance of the safety plan with reference to the construction site
 - How continuous assessment of the safety plan will be assessed and implemented with respect to construction site
 - What control systems the Contractor envisages to implement on site to support his safety program
 - How the Contractor will ensure that he adheres to the construction regulations in respect of competent persons for appointments
-

- What external resources the Contractor envisages on using to ensure successful implementation and sustainability of the safety plan
- What training to employees the Contractor envisages and how he would go about to execute it
- The Contractor should indicate which competent persons he plans on employing

During the tendering phase it will be expected from the tenderer to briefly explain how the abovementioned will be accomplished.

Once a successful tenderer has been appointed, the Contractor shall supply a detailed Health and Safety Plan for review by the Employer, prior to site mobilization, to ensure compliance with the Construction Regulations, 2014. Mobilization shall be dependent upon the acceptance of the Contractor's Health and Safety Management Plan by the Employer. The Contractor's Health and Safety Plan should include, but not be limited to, those sections indicated in Section 3.2 of this specification.

3.2 Outline of Health and Safety Plan

The Contractor's Health and Safety Plan prepared in accordance with this specification shall consist of at least the following sections and sub-sections:

1. Aim and Scope of Plan,
2. Risk Assessment,
 - a. Alternative Forms of Risk Assessment,
 - b. Methodology of Risk Assessment,
 - c. Elements of Risk Assessment,
 - i. Scope of assessment,
 - ii. Risks Identified,
 - iii. Risk Analysis,
 - iv. Risk Evaluation,
 - v. Risk Treatment,
 - vi. Monitoring and reviewing,
3. Resources,
 - a. Health and Safety Staffing Organogram,
 - b. Supervisors, Inspectors and Issuers,
 - c. Employees,
 - d. Subcontractors inclusive of their scope of work and their core resources,
 - e. Training,
 - f. Plant,
 - g. Vehicles,

- h. Equipment
- 4. Materials,
 - a. Temporary Materials
 - b. Permanent Materials
- 5. Categories of Work
- 6. Implementation of Health and Safety Plan,
 - a. Administrative systems,
 - b. Training,
 - c. Reporting,
 - d. Monitoring,
 - e. Inspections,
- 7. Auditing,
 - a. Internal audits,
 - b. Follow-up audits,
- 8. Financial Aspects,
- 9. Emergency procedures and response

4. RISK ASSESSMENT FOR CONSTRUCTION WORK

4.1 General

This section of the specification provides guidelines for the Contractor in preparation of risk assessments in order to ensure compliance with Regulation 9 of the Construction Regulations, 2014. This section highlights the principles related to the preparation of suitable and sufficient risk assessments. Contractor Staff intending to prepare risk assessments should be trained and suitably experienced in the application envisaged.

A suitable and sufficient risk assessment is an assessment which:

- Accounts for risks that are likely to arise during the construction of the Works,
- Enables the development and implementation of systems to manage the risks,
- Remains valid for a reasonable period of time,
- Provides a basis for training of employees, and
- Improves working procedures and introduce long term controls.

The requirements of the Construction Regulations will not be satisfied by a single risk assessment exercise that holds good for all time. The risk assessment process on the Works is an ongoing process.

The objectives of risk assessments are to:

- Identify the risks that are mostly in need of reduction,
- Identify the various options for achieving such reduction,
- Identify the risks that require careful ongoing management, and
- Identify the nature of the required ongoing attention.

4.2 Forms of Risk Assessment

In order to ensure compliance with the Construction Regulations, the Contractor will be required to carry out the following three forms of risk assessment:

4.2.1 *Baseline or datum risk assessments*

The Contractor will be required to carry out a risk assessment before the commencement of construction activities on the Works. This “baseline” or “datum” risk assessment will form part of the Contractor’s Health and Safety Plan. The risks and hazards to which persons, plant, vehicles and facilities may be exposed during the construction of the Works should be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment. The effectiveness of the measures defined and the baseline risk assessment prepared shall be monitored and reviewed from time to time to ensure that it remains relevant and accurate.

4.2.2 *Issue based risk assessments*

The Contractor will be required to carry out separate risk assessments during construction of the Works when methods and procedures are varied, for example when:

- Designs are amended,
- New machines are introduced,
- Plant is periodically cleaned and maintained,
- Plant is started-up or shut-down,
- Systems of work change or operations alter,
- Incidents or near-misses occur, or
- Technological developments invalidate prior risk assessments.

4.2.3 *Continuous risk assessments*

The Occupational Health and Safety Act specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk free environment on an ongoing basis. This is achieved by continuous risk assessments, the most important form of risk assessment

that takes place as an integral part of day-to-day management. Examples of continuous risk assessments include:

- Regular audits,
- Maintaining general hazard awareness,
- Pre-work risk assessment

4.3 Methodology for the Preparation of Risk Assessments

The Contractor shall in the preparation of his risk assessments, follow the following general principles:

- Employ a team of suitably qualified individuals with appropriately varied and relevant experience in risk assessment,
- The appointed risk assessor shall lead the risk assessment,
- Provide the team with background data, scope of work, potential hazards and underlying causes, and
- Where necessary employ experts for complex risk assessments and aspects of risk assessments that require experiential judgment,
- Institute an ongoing system of identifying aspects of the work that require risk assessment, and
- Conduct risk assessments in workshops of the team or by individual members of the team under guidance of the leader as appropriate to the situation.

4.4 Elements of a Risk Assessment

4.4.1 General

The process of carrying out a risk assessment consists of a number of well-defined steps. These steps improve decision-making by providing a greater understanding of the risks and their impacts. The main steps or elements of the risk assessment process are as follows:

- 1) Consider scope and nature of risks involved, determine purpose and physical and legal bounds of assessment and define risk evaluating criteria,
- 2) Systematically identify risks,
- 3) Analyze risks with regard to causes, likelihood of occurrence and possible consequences against the background of existing controls and its effectiveness,
- 4) Evaluate risks in terms of pre-established criteria to determine need and priority for attention,
- 5) Treat risks through a process of risk elimination, substitution, controlling risk at source, risk mitigation such as training and as far as risk remains, provide personal protective equipment (PPE),
- 6) Monitor and review progress and performance in terms of management system, and
- 7) Communicate and consult.

The following sections 4.4.2 to 4.4.7 deal with items (2) to (7) above. These items form the continuing process of the risk assessment as indicated in Figure 1, below.

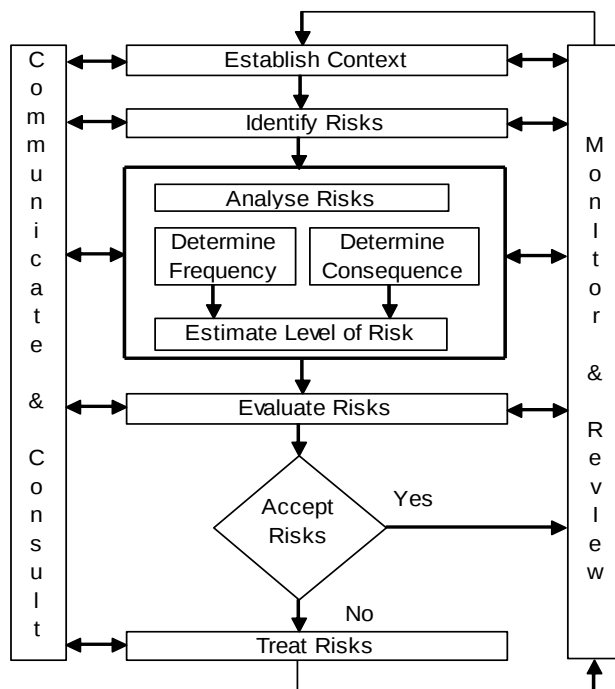


Figure 1: Risk Management Process

The Contractor shall ensure that the risk assessment compiled as part of his Health and Safety Plan contains at least these items.

4.4.2 Risk Identification

The Contractor should regard this step of the risk assessment as the most important. Subsequent analysis and evaluation of risks and the development of risk control measures are wasted if the risks or hazards on the Works are not carefully identified.

The Contractor should bear the following principles in mind when identifying the risks:

- i) Systematically address all risks or hazards on the Works,
- ii) Review all aspects of the work, but consider only those that have a potential to cause harm,
- iii) Rank the risks identified in order of importance and then use appropriately advanced techniques to deal with major risks,
- iv) Deal mainly with major risks and don't obscure these with unimportant information, especially minor risks,
- v) Address what actually happens in the workplace during the work activity
- vi) Consider all persons that may be affected,
- vii) Highlight those groups and individuals who may particularly be at risk, and

viii) Review the adequacy and effectiveness of existing safety controls and measures

4.4.3 Risk Analysis

In this step, the Contractor will be required to analyze the risks identified by determining each risks frequency and magnitude or severity of the consequence of the risk or hazard.

The frequency of occurrence of a hazard may be expressed as the number of times that it may occur in a year, decade, lifetime, century, or longer period, according to comparative human experience. The magnitude of the likely consequence of a hazard may be expressed in terms of the degree of incapacitation, number of people or costs involved. The frequency of occurrence of a hazard and the magnitude of its consequence may be compounded as the risk that it poses as shown in the “risk matrix” in Figure 2 below.

Frequency of Occurrence of Hazard	Severity of Consequences of Potential Hazard					
	1 Medically treatable injury	1 Compensable injury	10 Compensable injuries	1 Permanently disabling injury	1 Fatality	10 Fatalities
Frequent; 1 or more occurrences per year	Medium	High	Very high	Severe	Severe	Severe
Several times during a career; 0.1 occurrences per year	Medium-low	Medium	High	Very high	Severe	Severe
Unlikely, but possible during a career; 0.01 occurrences per year	Low	Medium-low	Medium	High	Very high	Severe
Very unlikely during a career; 0.001 occurrences per year	Low	Low	Medium-low	Medium	High	Very high
Barely credible; 0.0001 occurrences per year	Low	Low	Low	Medium-low	Medium	High

Figure 2: Compounded Risk Matrix

The columns in the table represent the likely consequence of the hazard and the rows, the frequency of occurrence. The scales for both quantities represent consistent progressions, be they qualitative. The risks evidently range from low to severe. Note that diagonals in the matrix represent the risks of the identified hazards, taking the effectiveness of controls into consideration.

The table represents a typical risk matrix that need not necessarily be adopted by the Contractor. The Contractor may use an alternative risk matrix provided that it is approved as part of his Health and Safety Plan.

4.4.4 Risk Evaluation

In this step the Contractor will be required to compare the assessed risk with similar risks previously experienced for the purpose of deciding how to treat the risk. A useful systematic approach for this purpose is as follows:

- If the assessed risk exceeds similar risks that have occurred in the past and that are considered to be unacceptable, the assessed risk would require treatment depending upon its magnitude as discussed in Section 4.4.5, or
- If the assessed risk exceeds similar historical risks that are acceptable, treatment of the assessed risk will depend on the extent by which it exceeds the historical risks, or
- If the assessed risk is less than historical risks that are unacceptable, treatment of the assessed risk will depend on the extent by which it is less than the historical risks, or
- If the assessed risk is less than historical risks that are acceptable, the assessed risk would also be acceptable and would not require any treatment.

4.4.5 Risk Treatment

In this step, the Contractor will select and implement appropriate measures for dealing with risk. Typically measures comprise the following:

- Elimination by changing designs, procedures, management methods, etc, applicable to high frequency–high consequence risks, or
- Reduction by changing designs, procedures, management methods, etc, applicable to high frequency–high consequence risks, or
- Minimization by changing designs, procedures, management methods, etc, applicable to high frequency–low consequence risks, or
- Transfer or share whole or part of the risk to another party by insurance, contractual arrangements or organizational structures, applicable to low frequency–high consequence risks, or
- Control to ensure that risks do not increase, applicable to low frequency–high consequence risks, or
- Retention together with provision of monitoring and personal protective equipment, applicable to low frequency–low consequence residual risks after reduction, or
- Acceptance without particular action other than provision of personal protective equipment, applicable to low frequency–low consequence risks.

The following principles enable the optimum treatment to be determined:

- Avoid risks altogether if possible by using different approaches, substances or methods of work,
 - Combat risks at source rather than by adopting secondary measures,
 - Adapt work to the individual rather than the individual to the work, that is, in the design consider the people and their attributes that will operate the system
 - Take advantage of technological and technical progress,
 - Risk prevention measures must be part of a coherent policy and approach to safety management that involves performance measurement, goal setting, feedback and analysis,
 - Give preference to measures that protect the whole work force,
-

- Ensure that those for whom protection is provided understand what they need to do to make sure that the protection works, and
- Ensure that measures to control risks are an accepted part of an active health and safety culture supported by all levels of the organization; single risk reduction initiatives invariably fail.

4.4.6 *Reporting and Recording*

The Contractor shall ensure that the risk assessment process is recorded in the form of a report and included in his Health and Safety Plan. The report should be easily accessible to the Contractor's employees, their representatives, to inspectors, the Employer or his Safety Agent and the Engineer. The essential contents of the report should be as follows:

- Objectives and expected outcomes,
- Description of the Works under assessment,
- Summary of context of study
- Composition of risk assessment team, (including qualifications and relevant experience),
- Approach used to systematically identify risks,
- Identified risks (ranked in order of priority),
- Method adopted for assessing frequencies and consequences of risks,
- Consequences (ranked in order of magnitude),
- Identification of individuals and groups who may be affected by major hazards and risk and who may especially be at risk,
- Basis for defining safety standards to be achieved,
- Contractor's resources devoted to risk assessment,
- Actions proposed to reduce unacceptably high risks,
- Review effectiveness of existing safety measures to control risks, and
- Implementation programme of selected treatments (including controls to manage unacceptably high risks).

4.4.7 *Monitoring and Review*

It is necessary to monitor risks, the effectiveness of the risk treatment plan and the strategies and management system set up to control implementation. Control of the risk management program entails the setting of standards, monitoring actual performance, comparing the performance with the standards and correcting any deviations from the standard. Risks and the effectiveness of the control measures need to be monitored to ensure changing circumstances do not alter risk priorities. Few risks remain static.

Ongoing review is essential to ensure that the management plan remains relevant. Factors that affect the likelihood and consequences of an outcome may change, as may factors that affect the suitability or cost of the various treatment options. If an accident occurs, or if more is learnt about the hazards in the workplace, the risk assessment may need to be reviewed or modified. Hazards may be observed that have not been anticipated or previously identified and which may require appropriate measures to be taken. After an accident has occurred, it is important to determine

whether it was predicted, whether preventive measures were identified, and if so, why they did not work, whether the risk assessment is still suitable and sufficient if it failed to predict the accident, whether to the decision to accept a predicted risk as tolerable is still valid, why the accident occurred and what should be done to prevent similar accidents occurring again. It is therefore necessary to regularly repeat the risk management cycle, the time between reviews being dependent on the nature of the risks and the degree of change likely to take place in the work activity. Review is an integral part of the risk management treatment plan.

4.4.8 *Communication and Consultation*

The Contractor will be required to communicate and consult with internal and external stakeholders during each step of the risk assessment process. Stakeholders will include the Employer and his Safety Agent, the Engineer and the Contractor's employees and consultants.

Effective communication will ensure that those responsible for implementing the risk management process and those with a vested interest, understand the basis on which decisions are made and why particular actions are taken. It will also ensure that the perceptions of all those involved are noted and accommodated during the process.

5. RESOURCES

5.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health And Safety Act, 1993 and all its Regulations and related incorporated standards with regards to the resources and facilities intended for use on the temporary and permanent Works.

5.2 Employees

5.2.1 *Inspectors, supervisors and Issuers*

The Contractor shall provide in his Health and Safety Plan his intended Staffing Organogram for the Works. The organogram should include those inspectors, supervisors and issuers as envisaged in the Construction Regulations, 2014 required for the Works and any additional supervisory staff members as the Contractor (having taken the scope of the Works into account) considers necessary.

Copies of the supervisory staffs' curriculum vitae or portfolio of evidence and their appointment letters should be appended to the Contractor's Health and Safety Plan.

The Contractor's Health and Safety Plan should in addition cover at least the following aspects:

- The number of unskilled, semi-skilled and skilled (including Foreman, Charge hands, Artisans, Operators, Drivers, Clerks, Storeman and Team Leaders) employees he intends employing on the Works,
- The health and safety training to be provided to the Contractor's employees,
- The programme of the health and safety training,
- Systems for the review of the effectiveness of the training provided, and
- Systems to determine further training requirements throughout the construction period.

In preparing his Health and Safety Plan, the Contractor shall ensure compliance with Clauses in Section 4.2 of the Project Specifications.

Pro-forma letters of appointment for the various inspectors, supervisors and issuers as contemplated in the Construction Regulations, 2014 are included in **Annexure A** to this specification for use by the Contractor. The Contractor shall ensure that he includes in his Health and Safety Plan the appointment letters for all his inspectors, supervisors and issuers appointed for the Works.

5.2.2 Subcontractors

The Contractor shall with reference to the use of subcontractors on the Works and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- The steps intended to ensure that his Subcontractors prepare, implement and maintain Health and Safety Plans,
- How health and safety information will be made available to his Subcontractors when changes are brought about to the design,
- How he intends determining that his Subcontractors are registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works,
- How he intends determining if his Subcontractors have made provision in their tenders for the cost of health and safety measures during the construction of the Works,
- How he intends satisfying himself on the competencies and resources of Subcontractors he intends appointing, and
- How he intends ensuring that his Subcontractors perform risk assessments prior to commencing their respective portions of the Works.

5.2.3 Competencies

The Contractor shall establish if a person is competent to perform a certain duty or be appointed in a certain capacity by requesting all candidates to supply the required certificates of competency. Where certificates of competencies cannot be delivered, the Contractor shall request a portfolio of evidence from the respective candidates.

Contractors should do enquiries at the South African Qualifications Authority (SAQA) relating to the qualifications required for appointment of competent persons.

5.2.4 *Physical and Psychological Fitness*

Where required by the Occupational Health & Safety Act and its regulations the contractor shall ensure that his employees are in possession of a valid medical certificate of fitness to work in such an environment.

In terms of the Construction Regulations 2014 medical certificates of fitness are required for persons working at elevated positions (Regulation 10.(2)(b)), persons working on suspended platforms (Regulation 17.(12)a) tower crane operators (Regulation 22.(f)) and construction vehicle and mobile plant operators (Regulation 23.(1)(d)(i)).

5.3 **Plant, Vehicles and Equipment**

5.3.1 *Suspended platforms*

The Contractor must, with reference to Regulation 17: Suspended platforms of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends complying with SANS 1808 and SANS 1903,
- What systems he intends using to ensure the safety of all suspended platforms,
- What tests will be performed to establish the safety of suspended platforms,
- How he intends maintaining suspended platforms being used, and
- How he will document the design, testing, maintenance and inspections of the suspended platforms.

5.3.2 *Rope Access*

The Contractor must, with reference to Regulation 18: Rope access of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Explain what systems he intends using to ensure the safety of all access ropes,
- Explain how he intends maintaining access ropes in use,
- What tests will be performed to establish the safety of access ropes, and
- How he will document the design, testing, maintenance and inspections of the access ropes.

5.3.3 *Material hoists*

The Contractor must, with reference to Regulation 19: Materials Hoists, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends confirming the construction stability of the material hoists,
-

- What systems he intends using to ensure the safety of all material hoists,
- What tests will be performed to establish the safety of all material hoists,
- How he intends maintaining the material hoists being used, and
- How he will document the design, testing, maintenance and inspections of all material hoists and
- What safety procedures and precautions are envisaged to ensure safe operation of the materials hoists.

5.3.4 Bulk Mixing Plants

The Contractor must, with reference to Regulation 20: Bulk mixing plants of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- What systems he intends using to ensure the safety of all bulk mixing plants,
- How he intends maintaining the bulk mixing plants in use, and
- How he will document the design, testing, maintenance and inspections of bulk mixing plants in use.

5.3.5 Explosive actuated fastening devices

The Contractor must, with reference to Regulation 21: Explosive actuated fastening devices, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends controlling the issuing of Explosive actuated fastening devices,
- How he intends implementing safety procedures prior to use of Explosive actuated fastening devices, and
- What safety measures will be required during the use of Explosive actuated fastening devices.

5.3.6 Cranes

This section of the specification shall be read in conjunction with the provisions of the Driven Machinery Regulations, 1988.

The Contractor shall with reference to Regulation 22: Cranes, of the Construction Regulations, 2014 and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How will environmental factors be taken into account in respect to the use of cranes,
 - What systems he intends using to ensure the safety of all cranes in use,
 - How he intends maintaining cranes in use,
 - What tests will be performed to establish the safety of all cranes in use,
 - What safety procedures and precautions are envisaged to ensure the safe operation of all cranes in use,
-

- How he will document the design, testing, maintenance and inspections of all cranes in use, and
- The contractor shall proof compliance of the Driven Machinery Regulation, 1988, with reference to the lifting machinery and tackle being used.

5.3.7 *Construction vehicles and mobile plant*

The Contractor must, with reference to Regulation 23: Construction vehicles and mobile plant of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that construction vehicles and mobile plant are:
 - Of acceptable design and construction,
 - Maintained and in good working order,
 - Used according to design specifications, and
 - Are protected from falling into excavations, water or areas lower than the working surfaces,
- How he intends ensuring that workers are trained, authorised and physically fit to operate construction vehicles and mobile plant,
- What traffic arrangements and safety precautions will be implemented to ensure safe operation of construction vehicles and mobile plant on the Works, and
- How he intends safeguarding employees against construction vehicles and mobile plant moving on the construction site.

5.3.8 *Electrical Installation and Machinery on construction sites*

This section of the specification shall be read in conjunction with the provisions contained in the Electrical Installation Regulations, 1992.

The Contractor must, with reference to Regulation 24: Electrical Installation and machinery on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends safeguarding employees against electrical cables or apparatus under, over or on site, and
- How he will ensure that electrical installations are of adequate strength to withstand working conditions on a construction site.

5.3.9 *Ladders*

The Contractor shall with reference to Regulation 13A of the General Safety Regulations and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that ladders used are safe and constructed of materials approved for its intended use, and
-

- What precaution will be made to ensure the stability of ladders in use.

6. MATERIALS

6.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the design, supply, storage and erection of materials used for the temporary and permanent Works.

6.2 Fall Protection Equipment

The Contractor must, with reference to Regulation 10: Fall Protection Equipment of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Compilation of a fall protection plan,
- How the fall protection plan will be implemented and maintained,
- How employees will be screened and declared medically fit to work in areas where fall protection equipment is needed,
- How the safeguarding of persons, plant, vehicles, equipment and facilities on the construction site is contemplated,
- Training of staff working at heights and in the use of fall protection equipment,
- How a continuous assessment of the situation will be executed,
- How fall protection equipment will be inspected for safety, and
- How corrective actions will be implemented
- Emergency plans and procedures for treatment of incidents relating to falls from height.

6.3 Scaffolding

The Contractor must, with reference to Regulation 16: Scaffolding of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How compliance with SANS 085 will be ensured,
- How scaffolding in use will be maintained,
- What systems are intended to ensure the safety of scaffolding used, and
- What tests will be performed to establish the safety of scaffolding used
- Training plan for scaffold erectors and inspectors.

6.4 Use and temporary storage of flammable liquids on construction sites

This section of the specification shall be read in conjunction with the provisions for the use and storage of flammable goods as determined in the General Safety Regulations.

The Contractor must, with reference to Regulation 25: Use and temporary storage of flammable liquids on construction sites of the Construction Regulations, 2014, and in addition to compliance with the provisions for the use of flammable liquids in the General Safety Regulations 2003, ensure that:

- (a) where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;
- (b) no person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- (c) an adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- (d) only the quantity of flammable liquid needed for work on one day is taken out of the store for use;
- (e) all containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- (f) where flammable liquids are decanted, the metal containers are bonded and earthed; and no flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids

6.5 Stacking and storage on construction sites

This section of the specification shall be read in conjunction with the provisions for the stacking of articles contained in the General Safety Regulations.

The Contractor must, with reference to Regulation 28: Stacking and storage on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Who will supervise the stacking and storage of materials on site, and
 - What systems are intended to ensure the safe stacking and storage of materials on the site
-

6.6 Personnel Safety Equipment and Facilities

The Contractor must comply with Section 2 of the General Safety Regulations, and shall in particular provide all necessary personnel protective equipment for his personnel for the duration of the construction period. To this end the Contractor shall without limiting his obligations indicate in his Health and Safety Plan:

- Identify training requirements in the Contractors Training plan in the use and maintenance of personal protective equipment,
- The type of personnel safety equipment he will provide,
- How he intends issuing it to his employees, and
- How he will maintain the personnel safety equipment issued.

6.7 First Aid, Emergency Equipment and Procedures

The Contractor must comply with Section 3 of the General Safety Regulations regarding first aid, emergency equipment and procedures.

7. CATEGORIES OF WORK

In this section of his Health and Safety Plan, the Contractor is required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the execution of the following categories of work.

7.1 General

The Contractor must, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

7.1.1 Construction Employees' facilities

Contractors is required to adhere to Regulation 30: Construction employees facilities of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Facilities Regulations, 1990 (as amended) and SANS 0400.

The Contractor must discuss the following in detail in his safety plan:

- How will the Contractor establish the amount of facilities required for employees to shower, change, eat and attend to sanitary needs

- What measures will the employer take to house employees on site who live far from their residences or for the provision of transport

7.1.2 *Environmental regulations for workplaces*

The Contractor must comply with the Environmental Regulations for Workplaces, 1987, and shall address the following aspects as described in the regulations in his Health and Safety plan:

- Thermal requirements,
- Lighting,
- Windows,
- Ventilation,
- Housekeeping,
- Noise and hearing conservation,
- Precautions against flooding, and
- Fire precautions and means of egress.

7.1.3 *Housekeeping and general safeguarding on construction sites*

7.1.4 Contractors is required to adhere to Construction Regulation 25: Housekeeping and general safeguarding on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- How will contractors ensure the neatness of construction sites
- What measures does the Contractor envisage to
 - Store and/or stack materials,
 - Remove debris from site,
 - Prevent unauthorized entrance to the site
 - Protect employees or passers-by from falling objects

7.1.5 *Fire precaution on construction sites*

Contractors is required to adhere to Construction Regulation 27: Fire precautions on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- How the Contractor will minimize the risk of fire on the site
-

- How the Contractor will identify potential fire hazards
- What prohibitions the Contractor will implement to manage risk areas
- How many employees the Contractor will train in fire fighting
- What organization the Contractor envisage to combat fires on sites
- What precautions and procedures will be followed to evacuate employees in the case of a fire

7.1.6 *Water Environments*

The Contractor is required to adhere to Construction Regulation 26: Water Environments, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

- What precautions will the Contractor take to identify dangers where employees may fall into water
- What safety procedures and equipment will the Contractor implement to safeguard employees working at water environments

7.1.7 *Structures*

The Contractor is required to adhere to Construction Regulation 11: Structures, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

- Explain what controls, test or precautions will be made to prevent structures from collapsing during construction,
- The Contractor shall indicate what steps will be taken and implemented to ensure that structures or parts thereof will not be loaded in such a manner that it may collapse, and
- What procedures does the Contractor envisage to implement in order to obtain all relevant data on structures before commencement of construction work.

7.1.8 *Watching, barricading and lighting*

The Contractor is required to adhere to regulations 13.2(i) and 13.2.(l) of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan in respect of any excavation or other dangerous activity adjacent to public roads and thoroughfares:

- Type of barrier or fencing to be used,
 - Type and spacing of warning lights and warning signs, and
 - Control systems and personnel he intends employing to ensure that the above items are maintained.
-

7.1.9 Hazardous Chemical Substances

The Contractor is required to adhere to the Regulations for Hazardous Chemical Substances 1995 as amended in the handling and storage cement of and other hazardous chemical substances.

The Contractor must discuss the following in detail in his safety plan in respect of each hazardous chemical substance that will be used in the works:

- Storage of substance
- Handling of substance
- Protective clothing and other devices to be used while handling the substance
- Medical surveillance.

7.2 Site Clearance

The Contractor must, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

7.2.1 Demolition work

Contractors is required to adhere to Construction Regulation 14: Demolition work, of the Construction Regulations, 2014.

The Contractor shall discuss the following in detail in his safety plan:

- Briefly explain how he will safeguard people and property during and after demolition works
- Briefly explain how he will protect staff from dangerous situations
- Discuss the methods proposed to safeguard the public and property against harm during demolition work
- Discuss what type of equipment he envisage to use during demolition work
- How will the Contractor ensure the safety of equipment used during demolition work
- What steps will the Contractor deem necessary to take where hazardous materials is encountered
- Dust control measures
- Noise control measures

7.3 Earthworks

The Contractor must, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

7.3.1 Excavation

Contractors is required to adhere to Construction Regulation 13: Excavation, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

- How will the Contractor establish the stability of ground prior to excavations,
- What steps will the Contractor follow to ensure that bolstering, shoring and bracing is sufficient to ensure the safety of the excavation, and
- What steps will the Contractor follow to ensure the equipment used to safeguard an excavation is sufficient and safe.

7.4 Concrete

The Contractor must, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

7.4.1 Temporary Works

The Contractor must with reference to Regulation 12: Temporary Works, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How the design of Temporary Works will be carried out,
- How the erection of Temporary Works will be managed,
- How the continuous assessment of the safety of Temporary Works will be done,
- How the loading of Temporary Works will be managed or limited, and
- How he intends keeping records of the above.

7.5 Pipes

The Contractor must comply with Section 9 of the General Safety Regulations, with regards to the welding, flame cutting, grinding, soldering or similar operations associated with pipework.

8 IMPLEMENTATION OF CONTRACTOR'S HEALTH AND SAFETY PLAN

8.1 General

The Contractor must describe in his Health and Safety Plan how he intends to implement his plan.

The Contractor must indicate the methods he intends to use to ensure accurate record keeping of all critical elements identified in his risk assessment and covered in his Health and Safety Plan.

The Contractor must indicate how internal audits will be carried out, how shortcomings will be addressed, how he intends to review the safety plans, how he would train staff and how he would implement the findings and recommendations of internal audits or inputs of employees.

8.2 Administrative Systems

The Contractor must comply with Section 9 of the General Administrative Regulations, 1996. The Contractor's administrative system shall without limiting his obligations, cover the following:

- Upkeep of a safety file on site,
- Maintenance of his Health and Safety plan,
- Procedures to follow for the appointment of competent persons,
- Application for permits,
- Procedures to follow for notifications,
- Injury on duty [IOD] administration,
- Recording of minutes of safety meetings,
- Recording of checklists,
- Safe keeping of checklists, and
- Internal audits.

The Contractor shall in particular ensure that at least one copy of the Occupational Health and Safety Act, 1993 and its Regulations is available on the for every 20 employees employed.

8.3 Reporting Systems

The Contractor must comply with Section 9 of the General Administrative Regulations, 1996 and shall in particular (in accordance with section 12) furnish an inspector with information relating to health and safety on the construction site, when requested to do so.

The Contractor shall notify the Employer of any investigations, complaint or criminal charge which may arise as a consequence of the provision of the Occupational Health and Safety Act, 1993 and its Regulations, pursuant to work performed in terms of this Contract.

8.4 Training

The Contractor must train all his employees in accordance with the requirements of section 13 of the Occupational Health and Safety Act, 1993. The Contractor shall ensure that every employee is informed of the following:

- The hazards of any work he has to perform or plant machinery or equipment he is permitted to use, and
- The precautionary measures which should be taken regarding the above.

The Contractor must, without limiting his obligations, indicate in his Health and Safety Plan how he intends:

- Identifying the training needs of the personnel he intends employing, and
-

- Implementing the training identified
- What proof of induction training will be carried by his employees (e.g. laminated type identification card).

8.5 Safety Meetings

The Contractor must conduct at least one formal safety meeting per month with his employees to ensure safety awareness and shall maintain appropriate records of attendance and meeting content. Such records shall be made available to the Employers Safety Agent. Such meetings shall address at least the following:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Job or work projections
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics

8.6 Inspections and Monitoring

The Contractor shall be required to inspect each workplace prior to works commencing to ensure that all protective equipment is in place and that by entering the workplace no person will be exposed to any hazard which could affect his health or safety. The Contractor shall without limiting his obligations, indicate the following in his Health and Safety Plan:

- The inspection and monitoring procedures he intends employing to determine the safety of workplaces, and
- Who will be responsible for the checking of each workplace at the commencement of each shift.

The Contractor shall include in his Health and safety Plan all the checklists he intends using during the inspection and monitoring of the implementation of his Health and Safety Plan.

The Contractor can expect inspections of the works by any of the following parties:

- The Employer or his Safety Agent,
- The Employer's Occupational Safety Officer, or
- The designated officer serving in the Department of Labour and appointed by the Minister as Chief Inspector or his representative.

In addition to site inspections performed by the Employer or his safety agent they shall also do audits and assess the safety situation at the works and investigate incidents. Follow-up inspections will be performed to ensure compliance and recommendations done.

The Employer, his Safety Agent or his Occupational Safety Officer may stop the work at any time under the following conditions:

- If the Contractor is not compliant with his Health and Safety Plan
- Imminent threat to the health and safety of any person on site
- Continuous non-conformance to corrective action requests.

Inspections by the Chief Inspector or his representative will be by appointment and the purpose would be to investigate complaints received by the Inspector or to investigate serious incidents.

The Chief Inspector or his representative may issue prohibition notices to stop the activities at the works until the situation investigated has been resolved or he may issue an improvement notice whereby the Contractor will have a period to rectify any hazard identified by the inspector.

9. AUDITING

9.1 Internal Audits

The audits contemplated in regulation 5(1)(o) of the Construction Regulations, 2014 will be carried out by the Employer or his appointed Safety Agent.

The intervals for the audits shall be agreed between the Contractor and the Employer or his Safety Agent during the preparation of the Contractor's Health and Safety Plan, but shall be carried out at least once every 30 days or at such shorter interval that an inspector may require. The Employer or his Safety Agent shall provide at least 7 calendar days' notice prior to the conducting of an audit.

The findings of each audit will be made known to the Contractor and the Employer in a report prepared by the Employer or his Safety Agent and will be submitted to all parties within seven working days of the respective audit being completed. Any shortfalls identified will be documented in the audit report together with the Contractor's proposals to rectify the same. All audit reports will be filed in the Health and Safety File.

A date for a follow-up audit will be negotiated with the Contractor to verify the implementation of all actions to rectify shortfalls as identified in the audit report.

The Contractor will ensure that the same arrangement detailed above be implemented with his Contractors to ensure his compliance with the Construction Regulations and contemplated in regulation 7(3).

The audits described above only constitute part compliance by the Employer or the Safety Agent with regulation 5.(1)(k) of the Construction Regulations, 2014.

9.2 Audits by Employer or Safety Agent

The Employer or Safety Agent will be entitled to carry out additional audits or follow-up audits, as the case may be, at any time during the construction period provided that:

- i) The audit or follow-up audit are carried out during ordinary working hours, and
- ii) The Employer or Safety Agent gives the Contractor at least 24 hours' notice of his intention to carry out such audits.

The Contractor's employees indicated in Section 9.1 will be present during any audit carried out by the Employer or his Safety Agent.

10. MEASUREMENT AND PAYMENT

10.1 Measurement and Payment

- 10.1.1 The Contractor must 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)(g) of the Construction Regulations, 2014.

ANNEXURE A

APPOINTMENT LETTERS

Company Name
 Company Address
 Company Address
 Code

Attention: **(Assistant Construction Supervisor's Name)**

APPOINTMENT OF THE ASSISTANT CONSTRUCTION SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION 8.(2)

I, **(contractor's name)** hereby appoint **(assistant construction supervisor's name)** as the assistant supervisor responsible for **(site address)** to carry out the construction work of **(description of construction work and area of responsibility)**.

In terms of this appointment you are required to ensure that all construction work performed under your supervision is carried out as follows:

1. By persons suitably trained and competent to do such work;
2. That all persons are aware and understand the hazards attached to the work being carried out;
3. That the required risk assessments are carried out;
4. That precautionary measures are identified and implemented;
5. That discipline is enforced at the construction site at all times;
6. That all identified statutory requirements are met; and
7. That any other interest in terms of health and safety with respect to the responsible area is met.
8. You will accept the duties of the Construction Supervisor in his absence.

You are required to report any deviations of the above-mentioned instruction to **(construction supervisor's name)** and in his absence to the contractor's representative.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

You shall submit a written weekly report any non-compliance with the Construction Regulations, 2014.

Contractor's Representative full name	Signature	Date
.....		

Kindly confirm your acceptance of this appointment by completing the following:

I, **(assistant construction supervisor)** understand the implications of the appointment as detailed above and confirm my acceptance.

Assistant construction supervisor's full name	Signature	Date

Contract: -----

Company Name
Company Address
Company Address
Code

Attention: (**Safety Officer's Name**)

**APPOINTMENT OF THE CONSTRUCTION HEALTH AND SAFETY OFFICER IN TERMS OF
CONSTRUCTION REGULATION 8.(5)**

I, (**contractor's name**) hereby appoint (**safety officer's name**) as the Construction Health and Safety Officer responsible for (**site address**) to manage all the health and safety issues as required in terms of the Act by establishing a health and safety program with elected health and safety Representatives.

You must ensure that all the requirements in terms of the Act and in particular in terms of the Construction Regulations, 2014 are met. You shall also ensure that all appointed sub-contractors comply with the requirements as stipulated in the Construction Regulations, 2014.

You shall further ensure that all records, registers and required lists are maintained and shall stop construction work upon identifying any non-compliance by any contractor; this includes stopping any work should the competency of the person carrying out such work be questionable.

This appointment is valid from (**date**) to the completion of the stipulated construction work.

Contractor's Representative full name

Signature

Date

.....
Kindly confirm your acceptance of this appointment by completing the following:

I, (**construction health and safety officer's name**) understand the implications of the appointment as detailed above and confirm my acceptance.

Construction Health & Safety Officer's full name

Signature

Date

Contract: -----

Company Name
Company Address
Company Address
Code

Attention: **(Construction Vehicle and Mobile Plant Inspector)**

APPOINTMENT OF THE CONSTRUCTION VEHICLE AND MOBILE PLANT INSPECTOR IN TERMS OF CONSTRUCTION REGULATION 23.(1)(k)

I, **(contractor's name)** hereby appoint **(construction vehicles and mobile plant inspector's name)** as the construction vehicles and mobile plant inspector responsible for **(site address)** to inspect on a daily basis all construction vehicles and mobile plant, as per the provided checklist.

You must ensure that when becoming aware of any health and safety hazards in respect to construction vehicles and mobile plant that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

Contractor's Representative full name

Signature

Date

.....
Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction vehicles and mobile plant inspector's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

Construction vehicles and mobile plant
inspector's full name

Signature

Date

Company Name
Company Address
Company Address
Code

Attention: **(Sub-Contractor's Name)**

APPOINTMENT OF SUB-CONTRACTOR IN TERMS OF THE CONSTRUCTION REGULATION 7.(1)(c)

I, **(contractor's name)** hereby appoint **(sub-contractor's name)** as the sub-contractor responsible for **(site address)** to carry out the construction work of **(description of construction work)**.

You must ensure that you meet all the requirements in terms of the Act and in particular in terms of the section 37(2) agreement and the Construction Regulations, 2014. You shall also ensure that all contractors appointed by yourself and reporting to you comply with the requirements as stipulated in the Construction Regulations, 2014.

You shall also ensure that all the information and specifications to ensure that the construction work is carried out in a safe manner are carried over to all contractors appointed and reporting to you.

You shall further ensure that all records, registers and required lists are maintained and that all persons appointed to carry out tasks as stipulated by these regulations are competent and have the necessary resources to complete their tasks effectively in such a manner that health and safety is not in any manner compromised.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

You shall submit a written weekly report on all shortfalls that have not been met in terms of these regulations.

_____	_____	_____
Contractor's Representative full name	Signature	Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(sub-contractor's name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Sub-Contractor's Representative full name	Signature	Date

Company Name
Company Address
Company Address
Code

Attention: **(Construction Supervisor's Name)**

**APPOINTMENT OF THE CONSTRUCTION SUPERVISOR IN TERMS OF CONSTRUCTION
REGULATION 8.(7)**

I, **(contractor's name)** hereby appoint **(construction supervisor's name)** as the Supervisor responsible for **(site address)** to carry out the construction work of **(description of construction work and area of responsibility)**.

In terms of this appointment you are required to ensure that all construction work performed under your supervision is carried out as follows:

1. By persons suitably trained and competent to do such work;
2. That all statutory appointments have been completed;
3. That, where required, health and safety committees are established and that meetings are accordingly held;
4. That all persons are aware and understand the hazards attached to the work being carried out;
5. That the required risk assessments are carried out;
6. That precautionary measures are identified and implemented;
7. That discipline is enforced at the construction site at all times;
8. That all identified statutory requirements are met; and
9. That any other interests in terms of health and safety with respect to the responsible area is met.
10. You will in writing delegate your duties to the Assistant Construction Supervisor while absent from site.

You are required to report any deviations of the above-mentioned instructions to **(contractor's name)**. This appointment is valid from **(date)** to the completion of the stipulated construction work. You shall submit a written weekly report on all shortfalls that have not been met in terms of these regulations.

Contractor's Representative full name

Signature

Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction supervisor)** understand the implications of the appointment as detailed above and confirm my acceptance.

Construction Supervisor's full name

Signature

Date

Company Name
Company Address
Company Address
Code

Attention: **(Excavation Supervisor's Name)**

**APPOINTMENT OF THE EXCAVATION SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION
13.(a)**

I, **(contractor's name)** hereby appoint **(excavation supervisor's name)** as the excavation supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all excavation work as per the provided checklist.

You must ensure that when becoming aware of any health and safety hazards in respect to excavation work that that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____	_____	_____
Contractor's representative full name	Signature	Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(excavation work supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Excavation Work Supervisor full name	Signature	Date

Company Name
Company Address
Company Address
Code

Attention: **(Form work and Support work supervisor's name)**

**APPOINTMENT OF THE TEMPORARY WORKS SUPERVISOR IN TERMS OF CONSTRUCTION
REGULATION 12.(1)**

I, **(contractor name)** hereby appoint **(temporary works supervisor's name)** as the Temporary Works supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all Temporary Works as per the provided checklist.

You shall ensure that when becoming aware of any health and safety hazards in respect to Temporary Works that the necessary precautionary measures are taken and enforced. Hazards are reported in writing to the Construction, Health and Safety Officer and the Construction Supervisor.

You shall further ensure that the requirements of the Construction Regulations are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

Contractor's representative full name	Signature	Date
---------------------------------------	-----------	------

Kindly confirm your acceptance of this appointment by completing the following:

I, **(Temporary Works supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

Temporary Works Supervisor's full name	Signature	Date
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Contract: -----

Company Name

Company Address

Company Address

Code

Attention: **(Ladder Inspector's Name)**

APPOINTMENT OF THE LADDER INSPECTOR IN TERMS OF GENERAL SAFETY REGULATION 13A

I, **(contractor's name)** hereby appoint **(ladder inspector's name)** as the ladder inspector responsible for **(site address)** to manage ladders on site. You should inspect the ladders as per the checklist at least once a week.

You must ensure that when becoming aware of any health and safety hazards in respect to ladders that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

Contractor's representative full name

Signature

Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(ladder inspector's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

Ladder inspector's full name

Signature

Date

Company Name
Company Address
Company Address
Code

Attention: **(Risk Assessor's Name)**

**APPOINTMENT OF THE CONSTRUCTION SITE RISK ASSESSOR IN TERMS OF CONSTRUCTION
REGULATION 9.(1)**

I, **(contractor's name)** hereby appoint **(risk assessor's name)** as the construction site risk assessor responsible for **(site address)** to carry out risk assessments prior to the commencement of construction work and any other risk assessment that may be required for the duration of the construction work.

You shall ensure that all risks are identified and analyzed and that safe working procedures are drafted and implemented to reduce, mitigate or controls the hazards that were identified.

You will at least use the risk evaluation program with the provided checklists.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

Contractor's representative full name

Signature

Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction site risk assessor's name)** understand the implications of the appointment as detailed above and confirm my acceptance.

Construction site Risk Assessor's
full name

Signature

Date

Company Name

Company Address

Company Address

Code

Attention: **(Scaffolding Supervisor's Name)**

**APPOINTMENT OF THE SCAFFOLDING SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION
16.(1)**

I, **(contractor's name)** hereby appoint **(scaffolding supervisor's name)** as the scaffolding supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all scaffolding work. (Whether newly erected, altered or moved as per the provided checklist)

You shall ensure that when becoming aware of any health and safety hazards in respect to scaffolding work that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

Contractor's Representative full name

Signature

Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(scaffolding supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

Scaffolding Supervisor's full name

Signature

Date

Company Name
Company Address
Company Address
Code

Attention: **(Stacking and Storage Supervisor's Name)**

**APPOINTMENT OF THE STACKING AND STORAGE SUPERVISOR IN TERMS OF CONSTRUCTION
REGULATION 28.(a)**

I, **(contractor's name)** hereby appoint **(stacking and storage supervisor's name)** as the stacking and storage supervisor responsible for **(site address)** to manage all stacking and storage on site.

You must inspect all new stacking and there after as often as needed according to the checklist.

You must ensure that when becoming aware of any health and safety hazards in respect to stacking and storage that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations are at all times met. On identifying any shortfalls or hazards convey such information in writing to the construction supervisor.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____ Contractor's Representative full name	_____ Supervisor	_____ Date
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Kindly confirm your acceptance of this appointment by completing the following:

I, **(stacking and storage supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____ Stacking and Storage Supervisor's full name	_____ Signature	_____ Date
---	--------------------	---------------

**ANNEXURE 1:
APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK**

**ANNEXURE 2:
NOTIFICATION OF CONSTRUCTION WORK**

**ANNEXURE 3:
MEDICAL CERTIFICATE OF FITNESS**

ANNEXURE 1

APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK

[In terms of Regulation 3(2) of Construction Regulations, 2014]

This application must be submitted with the following documents:

1. Health and Safety specification.
2. Health and Safety plan.
3. Baseline risk assessment.

1. Name, postal address and telephone numbers of the client:

.....
.....

2. Details of the Agent.

- a. Title, Surname and Initials:
- b. Identity number/ Passport Number:
- c. Registration number with SACPCMP:
- d. Office Tel. number and/or Mobile number:.....
- e. Postal address:
-
-

3. Name, postal address and telephone numbers of the appointed principal contractor:

.....
.....

4. Name, postal address and telephone numbers of designer of the project:

.....
.....

5. Name, postal address and telephone numbers of the following persons:

- a. Construction Manager:
.....
- b. Construction Health and Safety Manager:
.....

c. Construction Health and Safety Officer:

.....

6. Exact physical address of the construction and site office:

.....
.....

7. Nature of construction work:

.....
.....

8. Expected commencement date:

.....

9. Expected completion date:

.....

10. Estimated maximum number of persons on the construction site:

.....

11. Planned number of contractors on site accountable to principal contractor:

.....

12. Name(s) of contractors appointed:

.....
.....
.....

13.

Signature of Client/Client's Agent

14.

Signature of the Principal Contractor

FOR OFFICE ONLY		
Authorization /Unique No.	LABOUR CENTRE	OFFICIAL APPROVAL STAMP

15. Date of application:

16. Submitted documents prescribed in Construction Regulation 5(4) (Please Tick ✓):

CR 5(1)(a)		CR 5(1)(b)		CR 5(1); (C-S)	
------------	--	------------	--	-------------------	--

17. Result of the application (Please Tick ✓):

Approved		Declined	
----------	--	----------	--

18. Reason for declining the application:

.....

.....

.....

19.

Signature of the Supervisor

20.

Signature of revoking Officer / Inspector

ANNEXURE 2

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (Regulation 4 of the Construction Regulations, 2014)

NOTIFICATION OF CONSTRUCTION WORK

1. (a) Name and postal address of principal contractor:
.....
 - (b) Name and tel. no of principal contractor's contact person:
.....
 2. Principal contractor's compensation registration number:
.....
 - 3 (a) Name and postal address of client:
.....
 - (b) Name and tel. no of client's contact person or agent:
.....
 4. (a) Name and postal address of designer(s) for the project:
.....
 - (b) Name and tel. no of designer(s) contact person:
.....
 5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 8(1).
.....
 6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 8(2).
.....
 7. Exact physical address of the construction site or site office:
.....
-

8. Nature of the construction work:
.....
.....
.....
9. Expected commencement date:
.....
10. Expected completion date:
.....
11. Estimated maximum number of persons on the construction site.
Total:.....Male: Female:.....
12. Planned number of contractors on the construction site accountable to principal contractor.....
13. Name(s) of contractors already selected.
.....
.....
.....
.....

.....
Principal Contractor

.....
Date

.....
Client's Agent (where applicable)

.....
Date

.....
Client

.....
Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR
PRIOR TO COMMENCEMENT OF WORK ON SITE.

ANNEXURE 3

OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993, Construction Regulations, 2014

Medical Certificate of Fitness

Name of Employee:.....ID Number:.....Co. Number.....

	*Possible Exposures e.g. noise, heat, fall risk, confined space	*Job Specific Requirements e.g. Operating Mobile Cranes, Digging Trenches, Erecting Temporary Works, etc.	*Protective Equipment e.g. Dust Respirator (Light Duty), Welding Gloves, etc
*Occupation e.g. General Worker, Welder, Bricklayer, Steel Fixer, Mobile Crane Operator			

***The Employer to complete the information in the spaces marked with an * before sending the Employee for a medical examination**

Declaration by the Medical Examiner:

I certify that I have, by examination and testing, using the above criteria specified by the employer, satisfied myself that the abovementioned employee is fit to perform the duties as described by the employer in the matrix above.

Occupational Medicine Practitioner/Occupational Health Nursing Practitioner: (Please Print Name)

.....

Signature:

Practice Number:

Date:

Address:

ANNEXURE B

IDENTIFIED HEALTH AND SAFETY HAZARDS

ANNEXURE B: IDENTIFIED HEALTH AND SAFETY HAZARDS

In terms of Regulation 5.(1)(b) of the Construction Regulations, 2014 the following hazards anticipated with the scope of work have been identified.

NOTE: The list of potential hazards is by no means intended to be all inclusive and is not limited to this list, and it remains the responsibility of the Contractor to identify all possible hazards with regards to his scope of work and to put measures in place to mitigate, reduce or control these hazards.

Potential Hazards

1. Commissioning of new installations
2. Confined space entry
3. Demolition / breaking into existing structures
4. Excavation shoring / brazing
5. Excavations being flooded during rainy season
6. Explosives
7. Hazardous material handling / storage / management
8. Heat stress
9. Loading and off loading vehicles
10. Manual handling of materials
11. Plant and equipment integrity
12. Public and traffic safety
13. Requirements for plant isolations
14. Roofing and Cladding operations
15. Safe usage and storage of Oxygen, Acetylene and LPG cylinders
16. Scaffolding
17. Stacking and storage of equipment / materials
18. Tie-ins into existing equipment
19. Usage of compressed air and equipment
20. Work involving radioactive sources
21. Working in operational areas
22. Working on live electrical installations / sub-stations / MCC rooms
23. Working on moving equipment.

C3.7 **REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE
ENVIRONMENTAL MANAGEMENT PLAN**

C3.7 REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)**1. INTRODUCTION**

The EMP will address the environmental impacts during the design, construction and operational phases of a project. Due regard must be given to environmental protection during the entire pipeline project. In order to achieve this a number of environmental specifications/recommendations are made. These are aimed at ensuring that the Contractor maintains adequate control over the project in order to:

Minimise the extent of impact during construction,
Ensure appropriate restoration of areas affected by construction.
Prevent long term environmental degradation.

The contractor must be made aware of the environmental obligations that are stipulated in this document and declares himself/herself to be conversant of all relevant environmental legislation. The Contractor should also be aware that the Engineer will monitor the implementation of the procedures.

2. POLICY STATEMENT

The construction will be to the best management practices as identified to minimize the environmental impact of activities associated with the development.

3. OBJECTIVES OF THE EMP

The EMP has the following goals:

- Identifying those construction activities that may have a detrimental impact on the environment.
- Detailing the mitigation measures that will need to be taken, and the procedures for their implementation.
- Establishing the reporting system to be undertaken during the construction.

The EMP also serves to highlight specific requirements that will be monitored during the development, and should the environmental impacts not have been satisfactorily prevented or mitigated, corrective action will have to be taken. The document should, therefore, be seen as a guideline that will assist in minimising the potential environmental impact of activities.

4. DESIGNATED ENVIRONMENTAL OFFICER

For the purpose of the EMP, a nominated representative of the Contractor should be the designated environmental officer for the project. The nominated representative of the Contractor will therefore be responsible for ensuring that the provisions of the EMP are complied with. The Engineer will be responsible for issuing instructions to the Contractor where environmental considerations call for action to be taken. The environmental officer will submit monthly reports to the Engineer on site who will verify the information.

5. LEGAL REQUIREMENTS

Under normal circumstances an EMP would be the end result or the final stage in the EIA procedure. For those projects that do not need approval, the Victor Khanye Local Municipality undertook to compile generic EMP's to assist in minimising degradation to the area. The following project types fall in this non-approval category: periodic maintenance, special maintenance, rehabilitation and specific upgrades.

6. MITIGATION MEASURES

In setting mitigation measures, the practical implications of executing these measures must be borne in mind. With early planning, both the cost and the impacts can be minimised.

6.1 Establishment of site offices

6.1.1 Site plan

The Contractor shall provide the Engineer on site with a plan detailing the layout of site offices facilities, such as chemical toilets, areas for stockpiling of material, storage of hazardous materials and provision of containers. The site offices should not be sited in close proximity to steep areas as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the site, and in particular the ablution facilities, aggregate stockpiles and hazardous material stockpiles are located as far away as possible from any water course as possible.

6.1.2 Vegetation

The vegetation surrounding the site offices is to be left as intact as possible and vegetation planted at the site should be indigenous. Only trees directly affected by the works and such others as may be indicated by the Engineer in writing, may be sawn off/removed.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien invader plant shall be cleared by hand before seeding.

6.1.3 Rehabilitation

The site offices will require rehabilitation at the end of the contract. All construction material, including concrete slabs and entertainment areas are to be removed from the site on completion of the contract.

6.1.4 Water for human consumption

Water for human consumption must be tested and treated in accordance with recommendations.

6.2 Sewage treatment

Adequate toilet facilities are to be provided. Use of the veld for this purpose shall not, under any circumstances, be allowed. The Contractor shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the Engineer. Latrines shall be positioned within walking distance from wherever employees are employed on the works.

Save and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak aways, dry composting toilets such as “enviro loos”, or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets is to be done in consultation with the Site Engineer.

6.3 Waste management

Waste management and waste minimisation must be implemented at the outset of the contract.

6.3.1 Litter

No littering by construction workers is allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site is to be kept free of litter.

6.3.2 Removal of solid waste

Solid waste is to be stored in an appointed area for collection and disposal. A refuse control system must be established for the collection and removal of refuse to the satisfaction of the Engineer. Disposal of solid waste will be in an approved landfill site.

6.3.3 Hazardous waste

Hazardous waste such as bitumen, tar, oils, etc. shall be disposed of in an approved landfill site. Special care must be taken when using tar products such as tar prime or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

6.4 Soil management

6.4.1 Topsoil

The contract provides for the stripping and stockpiling of topsoil from the site for later reuse. Topsoil is considered to be of a minimum thickness of ± 150 mm of the natural soil, including all the vegetation and organic matter. The areas to be cleared of topsoil shall include the storage areas. Weeds appearing on the stockpiled topsoil shall be removed by hand before seeding. Soils contaminated by hazardous substances shall be disposed of in an approved waste disposal site.

6.4.2 Borrow material

The Contractor's attention is drawn to the requirements set forth in terms of the submission of EMPR's for establishment, operation and rehabilitation of borrow pits and quarries. The cost of complying with the requirements shall be deemed to be included in existing rates in the schedule of quantities.

6.5 Discovery of archaeological sites, artifacts or graves

6.5.1 Archaeological site

If an artefact on site is uncovered, work in the immediate vicinity must be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Engineer of such discovery. The National Monuments Council must be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. Read with General Conditions of Contract.

6.5.2 Graves

If a grave on site is uncovered, work in the immediate vicinity must be stopped and an undertaker as well as the National Monuments Council should be contacted. The undertaker will place advertisements in the newspapers concerning the grave. He will also provide for the relocation of bones, should it be necessary. Read with General Conditions of Contract.

6.6 Stockpiled material

The Contractor shall so plan his activities that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material must be indicated and demarcated on the site plan and approved in writing by the Engineer.

The area chosen shall be devoid of indigenous trees and shrubs. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. After the stockpiled material has been removed, the site shall be reinstated as closely as possible to its original condition. All areas affected by stockpiling shall be landscaped, top soiled and grassed to the Engineer's approval and at the Contractor's cost.

Material milled out of the existing road surface that is temporarily stockpiled within the road reserve shall:

- be stockpiled so as to be as inconspicuous as possible,
- be prevented from contaminating water courses,
- be cleared of weeds.

In all cases, the areas for stockpiling and disposal of construction rubble shall be approved by the Engineer before such operation commences.

6.7 Fuel, diesel and other hazardous materials

6.7.1 Hazardous materials

All hazardous materials i.e. bitumen binders shall be stored in an appointed area that is fenced and has restricted entry. Storage of bituminous products shall only take place using suitable containers to the approval of the Engineer.

Under no circumstances shall the spoiling of bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected bituminous products shall be taken to the supplier's production plant. No spillage of bituminous products shall be allowed on site. Affected areas shall be promptly reinstated to the satisfaction of the Engineer.

6.7.2 Fuel

Should any fuel storage tank be required on site, the Contractor shall ensure that he has complied with the necessary legal requirements for the erection of such tanks. Leakage must be avoided. The fuel and diesel areas should be bonded to accommodate any spillage or overflow from these activities.

6.7.3 Oil, grease

Oil, grease and cleaning materials from the maintenance of vehicles and machinery shall be collected in a sump and sent back to the supplier or otherwise disposed of at a registered site.

6.7.4 Cooking oil

The Contractor should ensure that sufficient fuel is available for heating and cooking purposes should this be necessary.

6.7.5 Spillages

Streams, rivers and dams must be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous products. In the event of a spillage, prompt action must be taken by competent instances to clear the affected area.

6.8 General considerations

Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a designated register and the response noted with the date and action taken. This record must be submitted with the monthly reports.

Any avoidable non-compliance with the above-mentioned measures may be considered sufficient ground for withholding payment of part or all amounts to be paid for the said item.

7. MEASUREMENT AND PAYMENT

The Contractor shall not be separately reimbursed or compensated in respect of his compliance with the provisions of this part of the Scope of Works. All costs so incurred shall, save and except to the extent provided for the schedule of quantities under PRELIMINARY AND GENERAL, be deemed to be included in the rates tendered for the various items of work listed in the schedule of quantities.

TABLE 1 SUMMARY OF MITIGATION MEASURES

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT SECTION IN SPECIFICATIONS
Establishment of site offices	Siting of offices	Preferred areas would be flat areas along the route. Avoid steep areas as soil erosion could increase. Avoid water courses	
	Site Plan	Contractor will provide Engineer detail of layout of site facilities within two weeks of moving to the site i.e. chemical toilets, the demarcation of areas for stockpiling of materials, storage of hazardous materials and the provision of containers. The offices shall be fenced. The site plan will be submitted before the site hand over meeting.	
Site rehabilitation	Cleanup	All construction material is to be removed from the site on completion of the contract.	

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT SECTION IN SPECIFICATIONS
Vegetation	On site	Vegetation planted on the site should be indigenous. Only trees directly affected by works as indicated in writing by Engineer, shall be sawn off/removed	
	Weeds	Clearance of weeds must be done by hand before seeding.	
	Grass cover	The grass cover surrounding the construction site is to be left as intact as possible or restored to its original condition.	
Water	Available for human consumption	Water for human consumption must be tested and treated in accordance with recommendations.	
Soil management	Topsoil	The topsoil ($\pm$ 150 mm) of any excavation shall be removed and stockpiled separately from underlying material in an appointment area	
	Borrow material	EMPR's for borrow pits to be submitted to the Department for approval	
Archaeological & Cultural sites	Discover of archaeological sites of artefacts	If an artefact on site is uncovered, work in the immediate vicinity must be stopped immediately and an archaeological consultant must be contacted. Work may only resume once clearance is given in writing by the archaeologist.	GCC
Graves	Discovery of graves	If a grave on site is uncovered, work in the immediate vicinity must be stopped and an undertaker should be contacted	GCC
Waste management	Solid & Construction waste	Solid waste is to be stored in an appointment area for collection and disposal. Disposal of waste will be in a licensed landfill, and no waste may be burnt on site.	
	Litter	The site is to be kept free of litter	
Sewage treatment	Toilet facilities	Adequate toilet facilities are to be provided, and the siting of chemical toilets is to be done in consultation with the site Engineer. Use of the veld for	

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT SECTION IN SPECIFICATIONS
		this purpose shall not be allowed.	
Fuel, diesel & hazardous materials	Hazardous Materials	All hazardous materials i.e. bitumen binders will be stored in an appointed area that is fenced and has restricted entry. No spoiling of bituminous products on site, over embankments, in borrow pits or any burning. No spillage of bituminous products shall be allowed on site.	
	Fuels	All fuel tanks will be stored in an appointed area. Leakage will be avoided.	
	Cooking fuel	The Contractor should ensure that sufficient fuel is available for heating and cooking purposes should this be necessary.	
	Oil, grease	Oil, grease and cleaning materials from maintenance of vehicles shall be collected in a sump and sent back to supplier.	
	Spillages	Streams, rivers or dams must be protected against spillages of pollutants mentioned in 6.7. In the event of a spillage, prompt action must be taken to clear the affected area.	
General considerations	Lines of authority	A nominated representative of the contractor will be the designated environmental officer for the site.	RELEVANT SECTION IN SPECIFICATIONS
	Reports	The environmental officer will submit monthly reports to the Engineer who will verify the information	
	Complaints	Complaints received regarding activities on the construction site pertaining to the environment should be recorded in a designated register, and the response noted with the date and action taken. This record must be submitted with the monthly report	

C4 SITE INFORMATION

PART C5: ADDITIONAL DOCUMENTS

- **GUIDELINES FOR THE DEVELOPMENT OF A HEALTH AND SAFETY PLAN**
- **BID CHECKLIST**

C5.1: GUIDELINES FOR THE DEVELOPMENT OF A HEALTH & SAFETY PLAN**1. Project Background**

In terms of the Construction Regulations [Regulation 5.(1)(b) of 2014] of the Occupational Health and Safety Act, No 85 of 1993, the Client is required to compile an Occupational Health and Safety specification for each of its projects and the Principal Contractor, appointed by the Client in terms of Regulation 5.(1)(h), is required to prepare an Occupational Health and Safety Plan. This plan has to be prepared in terms of Regulation 7.(1)(a) as well as the Client's Occupational Health & Safety Specification. In terms of Regulation 5.(1)(l), the Client and the Principal Contractor are required to agree on the Occupational Health and Safety Plan before any work may commence.

2. Framework for an Occupational Health and Safety Plan**2.1 Introduction**

The Principal Contractor has to demonstrate to the Client that he has a suitable and sufficiently documented Occupational Health and Safety Plan as well as the necessary competencies, experience and resources to perform the construction work safely. The Principal Contractor may be required to submit the following documentation for perusal and verification by the Client:

- Management Structure
- Quality Plan
- Human Resources Plan
- Registered Workplace Skills Plan
- "Letter of good standing" from the Compensation Commissioner or licensed compensation insurer
- Proof of induction and other training of employees
- Example of copy of minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation Reports

2.2 Contents of an Occupational Health and Safety Plan**2.2.1 Occupational Health and Safety Management Programme**

- *Management of Occupational Health and Safety risks*
- *Occupational Health and Safety structures and appointments*
- *Programme of Occupational Health and Safety inspections*
- *Occupational Health and Safety Representatives*
- *Occupational Health and Safety committee*

2.2.2 Communication and Management of the Work

- Management structure and responsibilities
- Occupational Health and Safety goals for the project and arrangements for monitoring and review of Occupational Health and Safety performance
- Arrangements for
 - Regular liaison between parties on site
 - Consultation with the workforce
 - The exchange of design information between the Client, engineer, supervisors and contractors on site
 - Handling design changes during the project
 - Selection and control of contractors
 - The exchange of Occupational Health and Safety information between all contractors
 - Security
 - Site induction and onsite training
 - Facilities and first-aid
- The reporting and investigation of accidents and incidents
- The production and approval of risk assessments and method statements
- Site OH&S rules
- Fire and emergency procedures
- Reporting to the Client i.e. results of Occupational Health and Safety inspections, incident and incident investigations and committee meetings
- Reporting of incidents to the Department of Labour and Compensation insurer where appropriate

2.2.3 Arrangements for controlling significant site risks

The following are some examples of the arrangements for controlling the most significant site risks:

- *Safety risks*
 - Services, including temporary electrical installations
 - Preventing employees from falling into excavations, from trucks etc.
 - Work with, on or near fragile materials
 - *Control of lifting operations*
 - *The maintenance of plant and equipment*
 - *Poor ground conditions*
 - *Traffic routes and segregation of vehicles and pedestrians*
 - *Storage of hazardous materials*

- *Dealing with existing unstable structures/land*
- *Accommodating adjacent land use*
- *Other significant safety risks as and when identified*
- Health risks
 - *Storage and use of hazardous chemical substances*
 - *Dealing with contaminated land or material*
 - *Manual handling*
 - *Reducing noise and vibration*
 - *Provision of adequate lighting*
 - *Ventilation considerations*
 - *Extreme heat and cold temperature considerations*
 - *Dealing with HIV/Aids and other illnesses*
 - *Provision of and maintaining ablution and eating facilities*
 - *Other significant health risks as and when identified*

2.2.4 Preparation of an Occupational Health and Safety Operational Reference File/Manual

The following are some of the requirements to be addressed:

- *Layout, format and content requirements*
- *Arrangement for the collection and gathering of information*
- *Storage and archiving of all the information*
- *Copy to the Client at completion of project*

Suggested Contents of an OH&S File/Manual

- OH&S Policy
- Notice of new project
- Site start-up
- Security measures
- Written designations & appointments
- Arrangements with contractors/mandataries
- OH&S rules and procedures
- Induction
- OH&S training
- OH&S promotion
- OH&S representatives
- OH&S committees
- Workplace facilities e.g. ablutions, sheltered eating areas etc.

- Protective equipment
- Workplace inspections and audits
- Investigation & reporting of incidents/accidents
- Mechanical safeguarding
- Electrical safeguarding
- Safeguarding against hazardous substances
- Lifting machinery & equipment
- Construction vehicles & mobile plant
- Welding, heating & flame cutting
- Excavations
- Protection of the environment affected by construction activities
- Keeping of records in terms of the OH&S Act (85 of 1993)

C5.2 GUIDE TO RISK ASSESSMENT

HOW TO DO IT

9 Steps to Effective Risk Assessment

- Step 1 : Identifying the hazards
 Step 2 : Aim to identify major hazards, don't waste time on the minor & detail
 Step 3 : Involve as many people as possible in the process especially those at risk
 Step 4 : Gather all the information and analyse it
 Step 5 : Look at what actually occurs including non-routine operations
 Step 6 : Use a systematic approach to ensure all hazards are adequately addressed
 Step 7 : Assess the risks arising taking into account the effectiveness of controls
 Step 8 : Ensure the process is practical and realistic
 Step 9 : Always record the assessment in writing including assumptions and why

How serious is it?**PROBABILITY**

- A Common
 B Has Happened
 C Could Happen
 D Not Likely
 E Practically impossible

CONSEQUENCES

- 1 Fatality or permanent disability
 2 Major injury
 3 Average Lost Time Injury
 4 Minor Injury
 5 Medical Treatment or less

PROBABILITY

		A	...B.....	C	D ..	E
C O N S E Q U E N C E S	1	1	2	3	4	5
	2	2	3	4	5	6
	3	3	4	5	6	7
	4	4	5	6	7	8
	5	5	6	7	8	9

Risk Rating:

- 1 – 3 = Serious
 4 - 5 = High
 6 – 7 = Moderate
 8 – 9 = Acceptable

ACTION

- Immediate (within 1 week)
 Within 1 month
 > 4 weeks
 No action

SAFCEC – SA Federation of Civil Engineering Contractors**LIST OF RISK ASSESSMENTS AVAILABLE**

Access Towers	Kerb Laying
Acid Washing	Landscaping
Aggregate/Sand Delivery	Lathe
Angle Grinder	Layering of (Road work) Materials
Arc Welding	Layering Process
Armco Barriers - installation	Laying Kerbs
Assembly of elements by boilermaker	Laying of storm water drains
Backfilling	Levelling – of materials
Bag Filling	Lifting Concrete. Beams on to trailers
BandSaw	Loading supervisor
Banksman	Loading/Unloading - of Trucks
Batch Plant	Loffels – placing/laying
Bench Grinder	Machine operator
Bin Scraper	Making of steel items
Block Feeder	Material delivery
Block Machine	Materials Handling
Boom Scraper	Mixer operator
Bricks – Laying of	Mobile Cranes
Brickwork	Pedestal Drill
Bulk Earthworks	Pedestal Grinder
Cement Spray Truck	Placing Concrete
Clearing & Grubbing of Area/Site	Plastering
Compressed Gas Cylinders-handling	Portable Electric Drill
Compressors – Air	Portable Electric Tools
Concrete – placing of (1)	Portable Ladders
Concrete – placing of (2)	Post Tensioning
Confined Spaces – Working in	Radial Arm Drill
Conveyors	Refuelling Vehicles/Plant
Cutting – of Earthworks	Reinforcing Steel – placement (1)
David Arm	Reinforcing Steel – placement (2)
Deck Panels – placing	Road Traffic Signs – placement of
Depalletor Operator	Roadworks - Deviations
Diss. Assembly Rejects	Roof Truss erection
Distribution Boards – Electrical	SandBlasting
Drivers – of Vehicles	Scaffolding
Dry Tile Deracking	Shuttering – Erection
Dumpers - Concrete	Shuttering – Stripping
Electrical Installation – Maintenance of	Site Establishment (1)
Elevated Positions	Site Establishment (2)
Erecting – Install/ Shutters	SkillSaw
Excavations (1)	Spray Painting
Excavations (2)	Stormwater pipes - laying
Explosive Powered Tools	Structural Steel – Erection
Finger Car	Structural Steel – Laydown
Fire Fighting Prevention	Surveying
Fire Prevention & Protection	Suspended Scaffolds
Formwork	Termite Proofing
Friction Saw	Tile Machine
Front End Loader	Tile stacking
Fuel Supply	Timber Feeder
Gas Cylinders – Handling of	Tower Cranes
Gas Welding - cutting operator.	Traffic Accommodation
Gas Welding - cutting operations	Traffic Control/Regulation
Guillotine	Trench Excavation
Hand & Spray Painting	Use of angle grinder
Hand Tool, Jacking – with Hydraulic Pump	Use of Port. Elec. Tools.
Hanging scaffolding	Wet tile racking
Hauling	Work confined spaces
High cut operations	Work in Elevated Positions
Jacking Hydraulic Pump (1)	Working Platforms
Jacking Hydraulic Pump (2)	Workshop

OH&S – RISK ASSESSMENT

RISK ASSESSMENT: SITE ESTABLISHMENT

TYPE OF WORK PERFORMED: _____

DATE COMPLETED: _____

ASSESSMENT PERFORMED BY: _____

Step No.	Activity Rules	What can cause injury/damage?	Result of cause (injury/damage)	Preventative Measures (tools, PPE, equipment)	Controls (test, check list)	Weights		
1.	Access to be a main consideration when positioning offices, stores and parking areas on site during planning stage. Possible one way traffic to be introduced	Restricted access to parking and delivery areas to storage areas.	Damage to transport and plant	Proper layout of site by Construction Manager and Site Agent taking into consideration all transport plant and material movements and storage on site.	Site Agent to check layout Dwg. To compare with OHS Act requirements and whether they are to Victor Khanye Local Municipality's standards.			
2.	Oxygen and acetylene store to be a minimum distance of five metres away from other buildings. It needs to be well ventilated and have a roof to keep direct exposure to the sun.	Fire explosion leaking gas may spread if to close to other buildings.	Damage to property and plant. Health of employees.	See item 1.	See item 1.			

Step No.	Activity Rules	What can cause injury/damage?	Result of cause (injury/damage)	Preventative Measures (tools, PPE, equipment)	Controls (test, check list)	Weights		
3.	Diesel tanks to be a distance of 10 metres away from any building and parking areas. A slab with a bund wall capable of carrying 110% of the tank capacities must be constructed for the tanks to stand in.	Fire may spread to adjacent buildings and plant if is too close.	Burns on all parts of body. Damage to plant and property.	See item 1. Persons in charge of tanks should be inducted regarding all the hazards involved and how to control them	See item 1. Supervisor to monitor on an ongoing basis if rules are complied with			

Step No.	Activity Rules	What can cause injury/damage?	Result of cause (injury/damage)	Preventative Measures (tools, PPE, equipment)	Controls (test, check list) During erection & ongoing	Weights		
4.	All cables from distribution board to offices, store and for security to be under-ground. The distribution board is to stand on a firm level base and should be locked at all times.	Damaged cables loose wires exposed.				Safety	Health	R/R

Step No.	Activity Rules	What can cause injury/damage?	Result of cause (injury/damage)	Preventative Measures (tools, PPE, equipment)	Controls (test, check list) During erection & ongoing	Weights		
5.	Security fencing minimum height of 1.8 metre around site area together with two double gates.	Theft of property. Access to unauthorised persons.	Loss of property. Injury to persons.	Security guards to be appointed to keep watch.	Supervisor to put system of control in place			
6. 6.1 6.2 6.3 6.4 6.5	Services to be available during site establishment. Fire fighting equipment. First aid boxes. First aider. Drinking water. Toilets.	Not having the essential services at hand.	Health of employees. Loss of property through fire.	6.1 to 6.5 are to be included on first order placed for contract. Dry chemical powder ABCDE fire extinguishers to be ordered 4 off for start.	Site Agent to see that these requirements are on site from start of site establishment.			
7.	Water tank tower to consist of very well cross braced pipe structure standing on concrete base.	Badly constructed water tower under designed structurally could cause tower to collapse.	Injury to persons. Damage to property.	Supervisor to erect as per design office specifications.				

Step No.	Activity Rules	What can cause injury/damage?	Result of cause (injury/damage)	Preventative Measures (tools, PPE, equipment)	Controls (test, check list) During erection & ongoing	Weights		
8.	Safety sign & notice board to be placed close to entrance of main gate	Not informing employees and public what the site rules are.	Injury to persons. Damage to property.	Victor Khanye Local Municipality standard notices/ Posters to be displayed. Available from Head Office.	Site manager to check that board has been erected.			
9.	Laydown areas to be sufficient in size. timber poles to be available to stack materials on.	With inadequate space various materials will be stacked on top of each other causing unstable stacks.	Injury to persons loading, unloading materials.	Allow sufficient space for laydown area during planning stage of site layout. Access to be considered important.	Site agent to discuss with Foreman regarding his requirement at planning stage.			
10.	Toilets are to be well ventilated.	No ventilation in toilets may cause germs to propagate.	Possible health problems due to germs.	Extraction fans to be fitted if required.	Supervisor to check if he is satisfied with ventilation.			

ASSESSMENT: 1 – 10 (HIGH)

11 – 16 (MEDIUM)

17 – 25 (LOW)

RISK ASSESSMENT: EXCAVATIONS (PLANT & MANUAL)

TYPE OF WORK PERFORMED:

DATE COMPLETED:

ASSESSMENT PERFORMED BY:

Step No	Activity Rules	What can cause injury/damage	Result of cause (injury/damage)	Preventative measures (tools, PPE, equipment)	Controls (test, checks)	Safety	Health	Finan.
When using a machine to excavate, observe the following:								
1	Operator must ensure there are no employees working in this area.	Employees not visible to operate or moving machine.	An injury to all parts of the body and as well as more serious fatal injuries.	Operator must work under close supervision. He must inspect the work area prior to commencing work.	Supervisor to ensure employees are informed and operator works under his supervision.			
2	Machine not to operate while employees are working in same	Danger of injury of employee by machine.	Bruises, scratches, fractures and fatal.	Supervisor must instruct operator when to commence work.	Supervisor to control and enforce procedure.			

Step No	Activity Rules	What can cause injury/damage	Result of cause (injury/damage)	Preventative measures (tools, PPE, equipment)	Controls (test, checks)	Safety	Health	Finan.
	excavations .							
3	All excavated materials must be discharged not closer than 2m from the edge of the excavation. When excavating manually, observe the following. See original	Materials can fall onto employees and the excavation may need extra work.	Injuries to employees and the excavation may need extra work.	Supervisor must instruct operator where to place discharged soil and gravel.	Supervisor to control.			
4	Using a pick and a shovel.	Unsafe use of a pick or a shovel.	Injury to employees.	Induct employees on safe working procedures.	Supervisor and charge hand to control.			
5	Check sides of excavations .	Unstable / loose material causes unsafe condition.	Injury to employees and damage to excavations.	Supervisor to inspect sides on a regular basis.	Supervisor / charge hand to control.			

Step No	Activity Rules	What can cause injury/damage	Result of cause (injury/damage)	Preventative measures (tools, PPE, equipment)	Controls (test, checks)	Safety	Health	Finan.
6	Excavated material to be placed away from side of excavation.	Materials can fall onto employees when working inside the excavation.	Bruises, scratches, fractures and fatal.	Employees to be instructed not to place loose soil on edge of the excavation.	Supervisor to control.			
7	All excavations deeper than 1,5 m must have an access ladder available for employees to get into and out of the excavation safely.	Employees not able to enter or exit the excavation safely.	In case of an emergency too many employees may be buried as a result of inadequate access. Employees may also strain muscles to get into or out of an excavation without safe and convenient access.	Providing a ladder makes access into and out of the excavation area easy and safe.	Supervisors to ensure employees are given safe and convenient access to excavations.			
8	Sides of excavation to be shored (if necessary) and barricaded immediately.	Sides may collapse. Employees may NOT BE AWARE OF THE EXCAVATION AND FALL INTO IT.	Damage to the excavation. Injury to employees,	Put adequate shoring and strong physical barricades in place immediately.	Supervisor and chargehand to control.			

Step No	Activity Rules	What can cause injury/damage	Result of cause (injury/damage)	Preventative measures (tools, PPE, equipment)	Controls (test, checks)	Safety	Health	Finan.
9	Excavations must be backfilled as soon as possible after excavation.	Excavations could collapse. Employees could trip and fall in. Vehicles and machinery could damage excavations.	Damage to excavations. Injury to employees. Damage to plant and machinery.	Keep area barricaded with a strong physical barricade and backfill as soon as possible.	Supervisor and chargehand to control.			

BID CHECKLIST

BID CHECKLIST

This list is aimed at assisting all bidders to submit complete bid.

Bidders are to check the following points (WHERE APPLICABLE) before the submission of their tender as an indication that the bidder has complied with the provision of the item concerned.

Item No	BIDDER CHECK POINT	Tenderer
	All pages of the bid document have been read by the bidder and the whole tender document is signed	
	All pages requiring information have been completed in full and in black ink.	
	The Schedule of Quantities has been checked for arithmetic correctness and signed.	
RETURNABLE SCHEDULES		
Form A	Compulsory Enterprise Questionnaire	
Form B	Record of Addenda to Tender Documents	
Form C	Authority for Signatory	
Form D	Preference Schedule	
Form E	Schedule of Previous Experience	
Form F	Schedule of Current Projects	
Form G	Certificate of Attendance at Site Meeting	
Form H	Proposed Key Personnel	
Form I	Schedule of Plant and Equipment	
Form J	Schedule of Proposed Sub-Contractors	

Item No	BIDDER CHECK POINT	Tenderer
Form K	Financial References	
Form L	Certificate of Authority of Joint Ventures/ Close corporation/ Partnership/ Company/ Sole proprietor	
Form M	Certificate of Registration with CIBD of 6CE or higher	
Form N	Registration on National Treasury Central Supplier	
Form O	Municipal Utility Account	
Form P	Proposed Amendments and Qualifications	
Form Q	Program and Methodology	
Form R	Quality Assurance Plan	
Form S	Professional registration with ECSA for one key personnel	
MBD1	Invitation to bid	
MBD2	Tax compliance requirements	
MBD4	Declaration of Interest	
MBD6.2	Local Content in terms of PPR 2017	
MBD8	Declaration of bidder's past supply chain management practices	
MBD9	Certificate of Independent bid determination	
