ABAQULUSI LOCAL MUNICIPALITY

TENDER DOCUMENT

TENDER NAME	:	**REHABILITATION 0F ABAQULUSI LOCAM MUNICIPAL OFFICES AT EMONDLO**
TENDER NO	:	**5/2/1/611**
CIDB CATEGORY	:	**4 GB/CE OR HIGHER**

NAME OF TENDERER : _____

TELEPHONE NUMBER : _____

E-MAIL : _____

PHYSICAL ADDRESS : _____

_____

_____

TENDER SUM (INCL. VAT) : _____

TENDER CLOSES AT 12:00PM ON 05 JUNE 2026

EMPLOYER
ABAQULUSI MUNICIPALITY
PO Box 57
VRYHEID
3100

Contact Details:
Tell: (034) 982 2133
Fax: (034) 9890 9637

SUMMARY FOR TENDER OPENING PURPOSES

[To facilitate the reading out of tender parameters at the opening of tenders, the tenderer shall complete this form and submit it with his tender]

Name of Contractor submitting the tender: :.....

Tender amount *(as stated in the Form of Offer):* R.....

Alternative Tender offered? ..... (*Yes / No*)

If “Yes” state amount: R .....……...

Specified Time for Completion: ……. (Weeks)

Alternative Time for Completion offered? …….. *(Yes / No)*

If "Yes", state time offered (weeks) ……..……...

Details of contact person:

Name *(Print):* .....

Telephone No: .....….....Fax No: ……..……..….....

E-mail address:……...

Cell No. :……..

Is Form of Offer signed by Tenderer and Witnesses? …… *(Yes/No)*

SIGNATURE*:* .....
(of person authorised to sign the tender

Note: In the event of conflict between the data provided in this summary and that given in the tender, the latter shall prevail.

CHECK LIST FOR TENDER SUBMISSION

The Tenderer is to indicate in the check-boxes provided that he has completed the required section of the tender document. Completion of this check-list will assist the Tenderer in ensuring that he has attended to all the required items for submission with this Tender.

Page	Description		Completed		For Office Use		
			Yes	No	Yes	No	Comments
Cover	Name of Tenderer						
	Contact Details						
	Tender Sum						
C1-3	C1.1	Form of Offer and Acceptance					
C1-12	C1.2	Contract Data (Part 2)					
C2-6	C2.2	Completed Schedule of Quantities					

Contractor Employer

TABLE OF CONTENTS

Contractor Employer

C3.3	Procurement	Blue	C3.6
C3.4	Construction and Management Requirements	Blue	C3.8
C3.5	Standard Specifications	Blue	C3.2
C3.6	Project Specifications	Blue	C3.12
C3.7	Particular Specifications	Blue	C3.32
PART C4	**SITE INFORMATION**	Green	C4.1
C4.1	Locality of Site	Green	C4.2
C4.2	Geotechnical Report	Green	C4.3
C4.3	Tender Drawings	Green	C4.4

PART T1: TENDERING PROCEDURES

PART T1-TENDERING PROCEDURES

CONTENTS **PAGE**

T1.1 TENDER NOTICE AND INVITATION TO TENDER

ABAQULUSI LOCAL MUNICIPALITY

CIDB CATEGORY: 1 GB/CE OR HIGHER

PROJECT NAME: **REHABILITATION 0F ABAQULUSI LOCAM MUNICIPAL OFFICES AT EMONDLO**

CONTRACT No.: **8/2/1/611**

Tenders are hereby invited for the **REHABILITATION 0F ABAQULUSI LOCAL MUNICIPAL OFFICES AT EMONDLO** The minimum specifications are detailed in the Tender Document.

Tender documents will be available on e-Tender portal on Monday**, 25th of June 2026**

The municipal offices can be contacted by using the following telecommunication numbers: 034 982 2133 (Phone) or 034 980 9637 (Fax).

Completed tender documents are to be placed in a sealed envelope marked **REHABILITATION OF ABAQULUSI LOCAL MUNICIPAL OFFICES AT EMONDLO**, **Tender No.: 8/2/1/611** and must be submitted at SCM office number four at the offices of Abaqulusi Local Municipality's offices at Cnr High & Mark Streets, Vryheid, not later than **12:00pm** on **Friday, 5th June 2026**. Tenders will be opened in public soon after closure and only the name of the tenderer and the tender amount will be read out. Telegraphic, faxed and late tenders will not be accepted, and the Municipality shall not be held responsible for any couriered documents.

The procedure for evaluating responsive tenders will be **Financial Offer and Preference**.

The 80/20 scoring method will apply in the evaluation of bids.

The following points will be awarded during the evaluation:

Price = 80
Special Goals = 20

Special Goals

PREFERENTIAL POINTS FOR BIDS NOT EXCEEDING R50 000000- 80:20	
PREFERENTIAL PROCUREMENT	**POINT ALLOCATED**
HDI EQUITY = 20	**20**
100% HDI EQUITY	20
BETWEEN 75% AND 99% HDI EQUITY	15
BETWEEN 50% AND 74%	10
LESS THAN 50%	0
Total special goals	**20 POINTS**

NB: To claim the points, full detailed CSD records must be submitted, ID Copy and / or CV Stating the position at the management level.

TOTAL = 100

Bidder's attention is specially drawn to adhere the provisions of the quotation rules which are included in the tender document and as follows:

- Abaqulusi Municipality Supply Chain Management Policy will apply,
- Bids above R10m, Annual Financial Statements a(AFS) are required,
- Late bids will not be accepted,
- Bids will be valid for a period of 90 days
- Bid must only submitted on the documentation provided by Abaqulusi Municipality
    - (Original document)
- An original valid tax clearance certificate of a company must be submitted with the tender document
- An original current account in terms of water and electricity / rates and taxes obtainable from your local municipality must be submitted or lease agreement
- Certified copies of identity documents of directors and owners of the company must be submitted
- Certified B- BBEE Certificate from a registered Accountant is applicable.
- Failure to comply with these conditions will result in immediate disqualification of the bid.
- Service Providers should be on Municipal Data Base if not please collect data base forms at SCM Office or down load them from Municipal website (www.abaqulusi.gov.za) and submit them with your tender document.
- Registration on CSD documents must also be submitted with tender document

The Abaqulusi Local Municipality does not bind itself to accepting the lowest, or any bid, either wholly or in part or give any reason for such action.

_____
Municipal Manager
Abaqulusi Local Municipality

T1.2.1: TENDER DATA: STANDARD CONDITIONS OF TENDER

The Standard Conditions of Tender as contained in Annex C of the legislated Standard Conditions of Tender as published in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019

T1.2.1: TENDER DATA: APPLICABLE TO THIS TENDER

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 No	Description
F.1.1.1	The Employer is: Abaqulusi Municipality Main Office Building, c/o Mark & High Streets, Vryheid 3100
F.1.2	The tender documents issued by the Employer comprise: **Volume 1:** **Part 1: Tendering Procedures** T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data **Part 2: Returnable Documents** T2.1 List of Returnable Documents T2.2 Returnable Schedules, including the Enterprise Declaration Affidavit which may be bound in a separate volume

Clause No	Description
	Part 1: Agreement and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Forms of Securities **Part 2: Pricing Data** C2.1 Pricing Instructions C2.2 Schedule of Rates **Part 3: Scope of Work** C3 Scope of Work including separate volumes for: **Part 4: Site Information** C4 Site Information
	The following documents form part of the Contract and is NOT provided by the Employer, the Contractor is required to obtain these documents for the execution of the contract: "General Conditions of Contract (GCC) for Construction Works -3rd Edition 2015" This document is issued by the South African Institution of Civil Engineering. (Short title "General Conditions of Contract 2015") and is obtainable separately. Tenderers shall obtain their own copies. The standard specifications on which this contract is based are the SABS 1200 Standardized Specifications. This document is obtainable separately, and Tenderers shall obtain their own copies. The Occupational Health and Safety Act No 85 of 1993 and Amendment Act No 181 of 1993, and the Construction Regulations 2014. This document is obtainable separately, and Tenderers shall obtain their own copies. Abaqulusi Local Municipality's Occupational Health and Safety Specification in terms of the requirements of Construction Regulations 4(1)(a). This document is available for review at the offices of the Employer and/or the Employer's agent. Tenderers shall obtain their own copies. In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies and participation of targeted enterprise and labour.

Clause No	Description
	(i) The Construction Industry Development Board Act No 38 of 2000 and the Regulations in terms of the CIDB Act 38/2000, Government Notice No 692 of 9 June 2004, (ii) SANS 1921:2004 Construction and management Part 1: General Engineering and Construction Works; Part 6: HIV/AIDS Awareness. (iii) SANS 10396:2003 Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures (iv) SANS 1914:2003 Targeted Construction Procurement, Parts 1 to 6, dealing with Participation of Targeted Enterprises, Joint Ventures, Targeted Labour etc.
C.1.4	The Employer's Agent's (also referred to as the Engineer) details are as follows: Name : ABAQULUSI MUNICIPALITY PROJECT MANAGER UNIT Represented by P Zwane Address : 112 Mason Street Vryheid 3100
	Tel No : (034) 982 2133 Fax No : (034) 980 9637 E-mail : pzwane@abaqulusi.gov.za/ records@abaqulusi.gov.za
	All communication between the tenderer and the employer shall be addressed to Mr N Mbongwa, in writing
F1.5.2	Replace the existing clause with the following: The Employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers, **save for all tenders being non-responsive**, re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.
F.2 F.2.1	TENDERER'S OBLIGATIONS Eligibility The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders: 1) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 1CE/GB of construction work, and who satisfy the following criteria: a. Availability of resources

Clause No	Description
	b. Availability of skills to manage and perform the contract – including staff which satisfies EPWP requirements (if applicable). c. Previous experience on contracts of a similar value and nature. d. Financial standing and capability. 2) Joint ventures are eligible to submit tenders provided that: a. every member of the joint venture is registered with the CIDB. b. the lead partner has a contractor grading designation in the 1CE/GB or Higher class of construction work: and, c. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 1CE/GB class of construction works 3) Information to be submitted with the tender 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 labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
C.2.12	Alternative Offers If a Tenderer wishes to submit an alternative tender offer, the only criteria permitted for such an alternative tender offer are a. <u>Individual Items</u> Individual items offered as alternatives to items in the Bill of Quantities will only be considered if listed and priced in Part T2 of the Contract Document, accompanied by a detailed statement as necessary. b. <u>Alternative Designs</u> Where a Tenderer desires to submit alternative tender involving modifications to the design or method of construction that would alter the character of the tender, the following procedure must be observed: 1. The alternative offer must be accompanied by supporting information, drawings, calculations and a priced alternative Bill of Quantities to enable its technical acceptability, construction time and price to be fully assessed. Such information, drawings and Bill of Quantities must be sufficient for proper evaluation of the tendered·· alternative, otherwise the offer will not be considered. 2. Any alternative tender involving modifications to design will be assessed on its merits and may be accepted. An accepted alternative design will become the design for the purpose of the contract.

Clause No	Description
	3. If an alternative design with its priced Bill of Quantities has been accepted, the sum thus tendered for the alternative will not be subject to re-measurement and will be the final amount payable to the Contractor, except only for variations arising from: • Changes in design parameters ordered by the Engineer. • Changes not arising from any failure or fault of the Contractor, but from modifications requested by the Engineer. 4. A decision whether or not to adopt a technically acceptable modified design will be governed by the amount of the overall saving and the advantages to the Employer, which the modified design can be reliably expected to achieve. Matters to be considered in arriving at the overall saving will include the effect of any deferment in starting date arising from extra time needed for the preparation of an amended contract for signature. 5. The Tenderer will be liable for all costs necessary for the Engineer to check the alternative design offered Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.
F.2.13	Submitting a Tender Offer
F.2.13.1	Submit one tender offer only, either as a single tendering entity or as a member in a single joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works.
F.2.13.3	Tender offers shall be submitted as an original hard copy only.
F.2.13.5	Delivery of Tender
F.2.13.5 F.2.15.1	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are: Location of Tender Box : Abaqulusi Municipality c/o Mark and High Streets, VRYHEID 3100 Identification Details : Contract No: 8/2/1/473 Tender reference number, Title of Tender and the closing date and time of the tender, as well as the Tenderer's name, his Authorised Representative's name, postal address and telephonic contact numbers
F.2.13.6 & F.3.5	A two-envelope procedure will not be followed.
F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will NOT be accepted.

Clause No	Description
F.2.15	Tender Submissions The closing time for submission of tender offers is Date: **05 JUNE 2026** Time : **12:00pm**
F.2.16	The tender offer validity period is 90 days.
F.2.18	Contractors Staff The tender 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 labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements
F.2.20	Performance Bond The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part T2.2 of this procurement document
F.2.22	Return of Tender Document Where a Tenderer who received a tender document does not submit a tender, the tender documents issued to him must be returned to the Employer within 14 days after the closing date for submission of tenders
F.2.23	The Tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part T2.2.22 of this procurement document.
F.2.23	Certificates The tenderer is required to submit the following certificates with his tender: 1. Either a Certificate of Contractor Registration issued by the Construction Industry Development Board *OR* a copy of the Application Form for registration in terms of the Construction Industry Development Board Act (Form F006). 2. An original valid Tax Clearance Certificate issued by the South African Revenue Services. 3. Copies of company registration documents 4. Joint Venture Agreement and Power of Attorney in case of Joint Ventures 5. Copies of ID documents of Shareholders/Members/Directors of the business enterprises 6. Proof of Preference Points Claimed 7. VAT Registration Certificate and Pin 8. Skills Development Levy Certificate 9. Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993) 10. a certificate certifying that the enterprise has no undisputed commitments to a municipality or other service provider in respect of which payment is overdue by more than 30 days (if greater than R10 million incl. VAT);

Clause No	Description
	11. particulars of any contracts awarded by an organ of state during the last five years including particulars of any material non-compliance or dispute concerning their execution over this period (if >R10 000 incl. VAT); and 12. a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion or payment from the municipality or municipal entity is expected to be transferred out of the Republic (if greater than R10 million incl. VAT). 13. All other certificates as requested in T2.1
F.2.24	Add the following new clause: Canvassing and obtaining of additional information by tenderers Accept that no Tenderer shall make any attempt either directly or indirectly to canvass any of the Employers officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon. No Tenderer shall make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders."
F.2.25	Add the following new clause: Prohibitions on awards to persons in service of the state Accept that the Employer is prohibited to award a tender to a person - a) who is in the service of the state; or b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or c) a person who is an advisor or consultant contracted with the municipality or municipal entity. "In the service of the state" means to be - i) a member of:- • any municipal council; • any provincial legislature; or • the National Assembly or the National Council of Provinces; ii) a member of the board of directors of any municipal entity; iii) an official of any municipality or municipal entity; iv) an employee of any national or provincial department; v) provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); vi) a member of the accounting authority of any national or provincial public entity; or vii) an employee of Parliament or a provincial legislature." In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in Section T2.2 must be completed.
F.2.26	Add the following new clause:

<table>
<tr><th>Clause No</th><th>Description</th></tr>
<tr><td></td><td>Awards to close family members of persons in the service of the state

“Accept that the notes to the Employer’s annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state (defined in clause F.2.25), or has been in the service of the state in the previous twelve months, including

a) the name of that person;

b) the capacity in which that person is in the service of the state; and

c) the amount of the award.

In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 – Returnable Documents must be completed in full and signed.”</td></tr>
<tr><td>F.2.27</td><td>Add the following new clause:

Tax Clearance Certificate

In the case of a Joint Venture/Consortium the tax Compliance status Pin must be submitted for each member of the Joint Venture/Consortium.”</td></tr>
<tr><td>F.3
F.3.1</td><td>EMPLOYERS UNDERTAKINGS

Opening of Tender Submissions

The time and location for opening of the tender offers are:

Time : [12h00pm]

Date : 05 JUNE 2026

Location: Abaqulusi Local Municipality’s SCM Office number four

c/o Mark and High Streets,

Vryheid,

3100

Tenderers names and total prices, where practical will be read out.</td></tr>
<tr><td>F.3.2</td><td>The procedure for the evaluation of responsive tenders is:

PREFERENTIAL POINTS FOR BIDS NOT EXCEEDING R50 000 000- 80:20

<table><tr><th>PREFERENTIAL PROCUREMENT</th><th>POINT ALLOCATED</th></tr><tr><td>HDI EQUITY = 20</td><td>20</td></tr><tr><td>100% HDI EQUITY</td><td>20</td></tr><tr><td>BETWEEN 75% AND 99% HDI EQUITY</td><td>15</td></tr></table></td></tr>
</table>

Clause No	Description	
	BETWEEN 50% AND 74%	10
	LESS THAN 50%	0
	Total special goals	**20 POINTS**
	Method 1: Financial Offer and Special Goals **a. Tenders will be evaluated as follows: The 80/20 scoring method will apply in the evaluation of bids.** The following points will be awarded during the evaluation: **Price = 80** **Special Goals = 20** **TOTAL = 100**	
F.3.3	Tender offers will only be accepted if: a) the tenderer submits **an original valid** Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations; b) the tenderer is registered with the Construction Industry Development Board in the contractor grading designation of 4 GB/CE; c) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; d) the tenderer has not: i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect; f) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract; g) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; e) h) the Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely; and f) the tenderer: i) has sufficiently substantiated his experience in this type work; and has the required and experienced key personnel;	
F.3.4	Copies of Contract	

Clause No	Description
	The employer will provide the successful tenderer with 1 (one) paper copy of the signed contract.
F.3.5	The number of paper copies of the signed contract to be provided by the Employer is one.
F.3.6	The commitment of the Employer to Government Policy concerning the empowerment of the SMMEs shall be noted and adhered to by the main contractor. It is against this background that, Abaqulusi Municipality has made provisions under this contract to ensure that the main contractor impart skills to the local SMMEs (to be employed as sub-contractors on this job) within the project area during the project implementation through the Main Contractor's 'Contractor Development programme'. It is the intention of Abaqulusi Municipality that the minimum targeted participation goal for the local SMMEs is up to 30% of the project value. The onus is upon the main contractor to handle and manage the procurement process of the sub-contractors and these once appointed, should be dealt with in accordance with the provisions of Clause 4.4 of the General Conditions of Contract for Construction Works 2015. Refer to PS3 (Procurement) for further details.

MBD 1: INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE ABAQULUSI LOCAL MUNCIPALITY

BID NUMBER: **8/2/1/611** CLOSING DATE: **FRIDAY, 5 JUNE 2026**

CLOSING TIME: **12:00pm**

DESCRIPTION: **REHABILITATION 0F ABAQULUSI LOCAL MUNICIPAL OFFICES AT EMONDLO**

The successful bidder will be required to fill in and sign a written Contract Form (MBD 7).

BID DOCUMENTS MAY BE POSTED TO:

……..

…….

OR

DEPOSITED IN THE BID BOX SITUATED AT *(STREET ADDRESS)*

……

……

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is generally open 24 hours a day, 7 days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 1 of the Local Government: Municipal Supply Chain Management Regulations)

THE FOLLOWING PARTICULARS MUST BE FURNISHED **(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)**

NAME OF
BIDDER…..……

POSTAL ADDRESS ……

STREET ADDRESS
…….……

TELEPHONE NUMBER
CODE……NUMBER……...……

CELLPHONE
NUMBER..……

FACSIMILE NUMBER CODE …… .NUMBER ……

E-MAIL ADDRESS ……..

VAT REGISTRATION
NUMBER……

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN ATTACHED? (MBD 2)
YES/NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (MBD 6.1)
YES/NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?

AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)
□

A VERIFICATION AGENCY ACCREDITED BY THE SOUITH AFRICAN NATIONAL ACCREDITATION SYSTEM (SANAS) □

A REGISTERED AUDITOR □

(Tick applicable box)

(**A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE**)

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES/WORKS OFFERED ? YES/NO

(IF YES ENCLOSE PROOF)

SIGNATURE OF BIDDER
……

DATE ……

CAPACITY UNDER WHICH THIS BID IS SIGNED
……

TOTAL BID PRICE……TOTAL NUMBER OF ITEMS OFFERED……

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:

Municipality / Municipal Entity: ……

Department: ……

Contact Person: ……

Tel: ……

Fax: ……..

ANY ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

Contact Person: ……

Tel: ……

Fax: ……..

MBD 4: 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 favouritism, 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 authorised 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**

∗ 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;

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 or adjudication of this bid? **YES / NO**

3.8.1 If so, furnish particulars.

……

……

(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.

3.9 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, principal 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, principal 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

MBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

1. GENERAL CONDITIONS

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

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

1.2 **To be completed by the organ of state**

(*delete whichever is not applicable for this tender*).

a) The applicable preference point system for this tender is the 90/10 preference point system.

b) The applicable preference point system for this tender is the 80/20 preference point system.

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

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

(a) Price; and

(b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	**100**

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that

preference points for specific goals are not claimed.

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

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

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

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

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

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

Table 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 specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Previously disadvantaged individuals		**20**		
100% HDI EQUITY		20		
BETWEEN 75% AND 99% HDI EQUITY		15		
BETWEEN 50% AND 74%		5		
LE SS THAN 50%		0		
Total special goals		**20 points**		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm…….

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

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

☐ State Owned Company
[TICK APPLICABLE BOX]

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

i) The information furnished is true and correct;

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

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

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

(a) disqualify the person from the tendering process;

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

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

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

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

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....

DATE: .....

ADDRESS: .....

.....

.....

.....

MBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Municipal Bidding Document (MBD) 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 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:201x.

1. General Conditions

1.1. Preferential Procurement Regulations, 2011 (Regulation 9.(1) and 9.(3) make 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. Regulation 9.(3) prescribes that where there is no designated sector, a specific bidding condition may be included, that only locally produced services, works or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.

1.4. Where necessary, for bids referred to in paragraphs 1.2 and 1.3 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 B-BBEE.

1.5. 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.

1.6. The local content (LC) as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 201x as follows:

$$LC = 1 - \left(\frac{x}{y}\right) \times 100$$

Where

x imported content

y bid price 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 the South African Reserve Bank (SARB) at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid as required in paragraph 4.1 below.

1.7. A bid will be disqualified if:

- the bidder fails to achieve the stipulated minimum threshold for local production and content indicated in paragraph 3 below; and.
- this declaration certificate is not submitted as part of the bid documentation.

2. Definitions

2.1. **"bid"** includes advertised competitive bids, written price quotations 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, 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 for this bid is/are as follows:

Description of services, works or goods	Stipulated minimum threshold

4. Does any portion of the services, works or goods offered have any imported content? 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 1.6 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date, one week (7 calendar days) prior to the closing date 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:

Currency	**Rates of exchange**
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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 Municipality / Municipal Entity):
.....

NB 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.

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 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.

(c) The local content has been calculated using the formula given in clause 3 of SATS 1286, the rates of exchange indicated in paragraph 4.1 above and the following figures:

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

If the bid is for more than one product, a schedule of the local content by product shall be attached.

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

(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, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ **DATE:** _____

WITNESS No. 1_____ **DATE:** _____

WITNESS No. 2 _____ **DATE: _____**

MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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 of Restricted Suppliers as companies or persons 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 Accounting Officer/Authority of the institution that imposed the restriction after the *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	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)? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	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**

MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1 This Municipal Bidding Document (MBD) must form part of all bids[1] invited.

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

3 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.

[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

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

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

(a) prices;

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

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

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

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

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

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

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

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

NATIONAL TREASURY CSD REGISTRATION

Provide the relevant information of registration on the National Treasury Central Supplier Database for the Main Bidder / s, JV Partner / s and or Sub-Contractors

	NT CSD Reference Number	SARS Pin
1. Main Bidder / s :		
2. JV Partner / s :		
3. Sub-Contractor / s :		

ATTACHED TO THIS PAGE A COPY OF PROOF OF CSD AND SARS

Municipal Account

(a) A copy of the bidder's and those of its directors municipal accounts (for the Municipality where the bidder pays his account) for the month preceding the tender closure date must accompany the tender documents. If such a certified copy does not accompany the bid document of the successful bidder, the Municipality reserves the right to obtain such documents after the closing date to verify that their municipal accounts are in order.

(b) Any bidder which is or whose directors are in arrears with their municipal rates and taxes or municipal charges due to any Municipality or any of its entities for more than three months and have not made an arrangement for settlement of same before the bid closure date will be unsuccessful.

(c) If a bidder rents their premises, proof must be submitted that the rental includes their municipal rates and taxes or municipal charges and that their rent is not in arrears.

ATTACHED TO THIS PAGE A COPY OF RECENT MUNICIPAL ACCOUNT OR RELEVANT PROOF OF RATES AND TAXES

Authorized Signatory

(a) A copy of the recorded Resolution taken by the Board of Directors, members, partners or trustees authorizing the representative to submit this bid on the bidder's behalf must be attached to the Bid Document on submission of same.

(b) A bid shall be eligible for consideration only if it bears the signature of the bidder or of some person duly and lawfully authorized to sign it for and on behalf of the bidder.

(c) If such a copy of the Resolution does not accompany the bid document of the successful bidder, the Municipality reserves the right to obtain such document after the closing date to verify that the signatory is in order. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified.

ATTACHED TO THIS PAGE A COPY OF RECORDED RESOLUTION FOR AUTHORISED SIGNATORY

B-BBEE CERTIFICATE

Insert a B-BBEE certificate issued by a Verification Agency accredited by a SANAS or a Registered Auditor approved by IRBA or a sworn affidavit.

LETTER OF GOOD STANDING FROM DEPARTMENT OF LABOUR (COID)

The Tenderer must attach hereto proof of compliance with the relevant requirements of the compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993).

CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)

Only bidders with a Construction Industry Development Board category and classification grading as indicated in the tender advert will be considered for award.

Please attach a copy of proof of the bidder's CIDB grading to this page.

PART 1: AGREEMENT AND CONTRACT DATA

TABLE OF CONTENTS

PAGE (S)

FORM OF OFFER (AGREEMENT)

FORM OF OFFER

THE TENDERER IS TO COMPLETE AND SIGN THE FORM OF OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

CONTRACT 8/2/1/473 – REHABILITATION 0F ABAQULUSI LOCAL MUNICIPAL OFFICES AT EMONDLO

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 authorised, 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 Contract shall be completed within | **Eight (8)** | **months of the Commencement Date.**

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.

By the representative of the Tenderer, deemed to be duly authorised, 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 RATES ARE FIRM

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.

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Tenderer _____

(Name and address of organisation)

Name and signature of witness _____ **Date** _____

FORM OF ACCEPTANCE

THE EMPLOYER IS TO COMPLETE AND SIGN THE FORM OF ACCEPTANCE

By signing this part of the 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 Agreement and Contract Data, (which includes this Agreement)
Part 2 Pricing Data
Part 3 Scope of Work
Part 4 Site Information

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 authorised representative(s) of both parties.

The Tenderer shall within **twenty (28) days** 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 Contact 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 of 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 copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now the Contractor) within **five days** after 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 binding contract between the parties,

FOR EMPLOYER OFFICIAL USE ONLY

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Employer ***AbaQulusi Municipality, Main Office Building, c/o Mark & High Streets, Vryheid 3100***
(Name and address of organisation)

Name and signature of witness _____ **Date** _____

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; and
4. Any change or addition to the tender documents arising from the above arrangements 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 _____

7 **Subject** _____

Details _____

8 **Subject** _____

Details _____

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during the 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 and signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the Tenderer:

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

_____

(Name and address of organisation)

Name and signature of witness _____ **Date** _____

For the Employer:

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

AbaQulusi Municipality, Main Office Building, c/o Mark & High Streets, Vryheid 3100

(Name and address of organisation)

Name and signature of witness _____ **Date** _____

CONTRACT DATA

PART 1: DATA PROVIDED BY THE EMPLOYER

CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works Third Edition (2015), published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685, is applicable to this Contract and is obtainable from ww.saice.org.za.

CONTRACT SPECIFIC DATA

The following contract specific data are applicable to this Contract:

GCC Clause	Information
1.1.1.13	The Defects Liability Period is 12 months from the date of completion on all new installations.
1.1.1.14	The time for achieving Practical Completion is 8 months, where Practical Completion shall constitute the following to be fully completed: • All work allocated has been fully completed. • All commissioning and testing has been successfully completed • All Health and safety Requirements complied.
1. 1.1.15	The name of the Employer is Abaqulusi Municipality Contact person is: NW Mbongwa
1.1.1.16	The name of the Employer's Agent is ABAUQULUSI MUNICIPLITY PROJECT MANAGEMENT UNIT, CONATACT PERSON IS MR P Zwane
1..1.1.26	The Pricing Strategy is Re-measurement Contract.
1.2.1.2	The address of the Employer is: Physical: AbaQulusi Municipality Main Office Building, c/o Mark & High Streets, Vryheid 3100 Postal: PO Box 57 Vryheid 3100 Tel: 034 982 2133 Fax: 034 980 9637 Email: engineering@abaqulusi.gov.za / sthungo@abaqulusi.gov.za
1.2.1.2	The address of the Employer's Agent is: ABAUQULUSI MUNICIPLITY PROJECT MANAGEMENT UNIT, CONATACT PERSON IS MR N MBONGWA: 144 Mark Street, Vryheid
5.1.1 and 5.8.1	The non-working days are Sundays Special non-working days are: 1. All Public Holidays in terms of the Public Holidays Act as amended. 2. The year-end break as published by SAFCEC.
5.3.1	The documentation required before commencement with Works execution are: • Approved Health and Safety File (Clause 4.3)

GCC Clause	Information
	• Initial programme (Clause 5.6) • Guarantee from Bank or Insurance Company (Clause 6.2) • Insurance of Construction Machinery Plant (Clause 8.6) • Insurance of Motor Vehicle Liability (Clause 8.6) • Insurance of the works (Clause 8.6) • Signed Notification to the Department of Labour • Construction Permit were applicable
5.3.2	The time to submit the Contract documentation required before commencement of the Works is 14 days.
5.13.1	The penalty for failing to complete the Works is R1, 000.00 per day.
5.13.2	The penalty for non-compliance during the contract or fraudulent disclosure is: R500 excluding VAT per calendar day until the contractor becomes compliant.
5.16.3	The latent defects period is 10 years.
6.2.1	The liability of the guarantee shall be 10% of the tendered sum
6.8.2	The effect of changes in prices or law on the amounts due shall be adjusted on the following basis: a) No price adjustment over the first 12-month period of the Contract. b) On the 12-month anniversary date of the signing of the agreement the rates shall be adjusted by twelve-month year on year CPI index (as published in the monthly bulletin PO141.1 of statistics South Africa) ruling on the 12-month anniversary date of the signing of the Agreement and fixed at this value for the following 12-month period. Subsequent 12-month periods shall be dealt with on a similar basis.
6.8.3	Price adjustments for variations in the costs of special materials are **NOT** allowed.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%. Proof of ownership and indemnity is required.
6.10.3	The percentage retention on the amounts due to the Contractor is 10%.
6.10.3	The limit of retention money is 10% of the contract price
6.10.4	Payment period: The Employer shall pay the amount due to the Contractor within 14 days of receipt by the Employer of the payment certificate signed by the Employers Agent.
8.6.1.1.2	The value of plant and materials supplied by the Employer to be included in the insurance sum is Nil
8.6.1.1.3	Professional fees to be cover
8.6.1.2	Following the introduction of legislation affecting the articles of the **South African Special Risks Insurance Association (SASRIA)**, insurance cover for loss or damage to the Works caused by any event defined as a risk in terms of the insurance offered by SASRIA, will be provided under a certificate issued by SASRIA.
8.6.1.3	**Public Liability Insurance** which will provide indemnity against legal liability in the event of accidental death of or injury to third party persons and/or loss or damage to third party property arising directly from the execution of the Contract and occurring during the period of Insurance with a limit of indemnity of R5million in respect of all claims arising from any one occurrence or series of occurrences consequent on or attributable to one source or original cause..
10.5.3	The adjudication board shall consist of one member.
10.7.1	The determination of disputes shall be by arbitration

Variations to General Conditions of Contract
Add the following Table:

3.2.4	**Employer's Agent for Health and Safety** 'In terms of Clause 1.3.2, all parties to the Contract shall be subject to the relevant requirements of the Construction Regulations 2014 (as amended) of the Occupational Health and Safety Act, Act 85 of 1993 (as amended).' Add the following at the end of the above new replacement Clause 3.2.4: 'Where the Employer is obliged to appoint an Employer's Agent for Health and Safety in terms of the Construction Regulations 2014 (as amended) of the Occupational Health and Safety Act (Act 85 of 1993 as amended), and where such Employer's Agent for Health and Safety has complied with the registration requirements of a Construction Health and Safety Agent as a specified category in terms of section 18 (1) (c) of the Project and Construction Management Professions Act (Act 48 of 2000), the applicable clauses of the latest edition of the "Standard Scope Of Services for Construction Health and Safety Agents Registered In Terms Of Section 18(1)(c) of the Project And Construction Management Professions Act (Act No. 48 Of 2000)", including Clauses 2.2.5 "STAGE 5 - CONSTRUCTION DOCUMENTATION AND MANAGEMENT", and 2.2.6 "STAGE 6 - PROJECT CLOSE – OUT", and 2.2.7 "ADDITIONAL RELATED SERVICES", as published in "Registration Rules for Construction Health and Safety Agents in Terms of Section 18 (1) (c) of the Project and Construction Management Professions Act, 2000 (Act No. 48 of 2000)" by the South African Council for Construction and Project Management Professionals in terms of the Project and Construction Management Professions Act (Act 48 of 2000 as amended), shall also apply.'
5.3.3	**Time to instruct commencement of the Works** The Contractor shall commence with carrying out the Works upon written instruction from the Employer's Agent to commence with the Works.
6..10.4	**Delivery, dissatisfaction with and payment of payment certificates** Payment shall be made upon: • The Contractor will provide a payment certificate with quantities to the Employer's Agent before or on the 20th of every month. • After the payment certificate has been approved by Employer's Agent, the Contractor must issue an Original Tax Invoice compliant with SARS requirements for Valid Tax Invoice. The date of the Original Tax Invoice must be date the Employer's Agent approved the Payment Certificate. The certificate will then be ready for handing in to the Employer. • Payment will be made end of the following month. Payment shall be subject to the Contractor submitting an Original Tax Invoice compliant with SARS requirements for Valid Tax Invoice to the Employer for the amount due. Any dissatisfaction in respect of such payment certificate shall be dealt with in terms of Clause 10.2.
6.10.5	**Payment of Retention Money** Amend Clause 6.10.5 as follows: In the third line, delete the word "when" and replace with "within 35 days after" In the sixth line, delete "14 days" and replace with "35 days" Add this paragraph at the end of the Clause, "Payment shall be subject to the Contractor submitting an Original Tax Invoice compliant with SARS requirements for Valid Tax Invoice to the Employer for the amount due."

7.8.2	**Cost of making good of defects** Amend Clause 7.8.2.1 as follows: In the first line, correct the spelling of 'therefore'.
8.3.1	**Excepted risks** Amend Clause 8.3.1.11 as follows
8.4.1.1	"hereby indemnifies the Employer against any liability in respect of damage or physical loss of property of any person or injury or death of any person due to non-compliance with the Occupational Health and Safety Act (Act 85 of 1993), "

Additions to General Conditions of Contract
Add the following Table:

1.1	**Definitions** Add the following at the end of Sub-Clause 1.1.1:
1.1.1.34	"Client", as used in the Occupational Health and Safety Act and its Construction Regulations, means Employer.
1.1.1.35	"Principal Contractor", as used in the Occupational Health and Safety Act - Construction Regulations, means Contractor.
C1.2.1.2.1	**Penalties** In addition to GCC 2015 clause 5.13, during the Contract Period should the Contractor: a) Penalties irreversible The Contractor shall note that all penalties once imposed shall be non-recoverable or reversible, even if the default is remedied.
C1.1.1.2.2	**Source of instructions** The Contractor shall neither seek nor accept instructions from any authority external to the Employer's Agent or their authorized representatives in connection with the performance of his services under this Contract.
C1.2.1.2.3	**Officials not to benefit** The Contractor warrants that no official of the Employer has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of the Contract.
C1.2.1.2.4	**Prevention of corruption** The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor has offered or given any person any gift or consideration of any kind as an inducement or reward for doing or intending to do any action in relation to the obtaining or the execution of the Contract or any other contract with the Employer or for showing or intending to show favor or disfavor to any person in relation to the Contract or any other contract with the Employer, if the like acts shall have been done by any persons employed by him or acting on his behalf whether with or without the knowledge of the Contractor in relation to this or any other Contract with the Employer.
C1.2.1.2.5	**Confidential nature of documents** All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under the Contract shall be the property of the Employer, shall be treated as confidential and shall be delivered only to the Employer's Agent or his duly authorized representative on completion of the Works; their contents shall not be made known by the Contractor to any person other than the personnel of

	the Contractor performing services under this Contract without the prior written consent of the Employer.
C1.2.1.2.6	**Returns of labour, plant, equipment and material** The Contractor shall provide a return in detail in the form and at such intervals as the Employer's Agent or his duly authorized representative may prescribe showing the supervisory staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such information respecting constructional plant, equipment and material as the Employer's Agent or his duly authorized representative may require.
C1.2.1.2.7	**Date falling on public holiday or weekend** Where under the terms of the Contract any act is to be done or any period is to expire upon a certain day and that day or that period fall on a day of rest or recognized holiday or weekend, the Contract shall have effect as if the act were to be done or the period to expire upon the working day following such day.
C1.2.1.2.8	**Ambiguities and inconsistencies** The Employer or the Contractor shall notify the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents, which are part of this Contract. Governed by the spirit and intention of the Contract, the Employer's Agent shall give a binding instruction resolving the ambiguity or inconsistency.
C1.2.1.2.9	**False claims by the Contractor** a) Failure, by the Contractor, to demonstrate or present any feature declared during the procurement stage shall constitute grounds for Contract termination or the market related equivalent price discount, if no market related value is available, the Employer shall give a final ruling on the amount. This shall be at the discretion of the Employer based on the implication of such omission. Should the Contractor refuse to accept the Employer's price, the Contract shall be terminated. b) Any false claims by the Contractor or his staff (with or without his knowledge), based on Works to be performed or completed per site stage shall constitute grounds for Contract termination and result in blacklisting on the Employer's database. The Contractor shall note that any of the above shall constitute non-performance on the part of the Contractor, further resulting in him forfeiting his full Contract Guarantee.

PART 2: DATA PROVIDED BY THE CONTRACTOR

GCC Clause	Information
Clause 1.1.1.9	The name of the Contractor is …… ……
Clause 1.2.1.2	The address of the Contractor is: Physical …… Postal …… Tel: …… …… …… Fax: …… …… …… Email: …… …… …… …… …… …… ……

PART 1: FORMS AND SECURITIES

TABLE OF CONTENTS

PAGE (S)

forms and securities

FORMS FOR COMPLETION BY THE CONTRACTOR

THE FOLLOWING FORMS ARE TO BE COMPLETED BY THE CONTRACTOR AFTER THE TENDER HAS BEEN AWARDED TO THE SUCCESSFUL TENDERER

a) Form of Guarantee

The forms will be completed by the Contractor who will be instructed to do so in the Form of Acceptance. The completed forms will become part of the Contract.

The Form of Guarantee is a pro forma document. The Contractor will provide an original document, from a financial institution, with the same text within the time stated in the Contract Data. Only a Bank or approved Insurance Company or Guarantee Corporation is acceptable as Guarantor.

Form of Guarantee

TO BE PRINTED ON THE OFFICIAL LETTERHEAD 0F THE GUARANTOR.

PERFORMANCE GUARANTEE

Whereas Abaqulusi Municipality (hereinafter referred to as "the Employer" or "beneficiary") entered into a Contract with

_____
(Hereinafter called "the Contractor")

on the _____ day of _____ 20____ for the construction of

_____

at _____

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS _____
has/have at the request of the Contractor, agreed to such guarantee;

NOW THEREFORE WE, _____
Do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion 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 authorised and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the 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, alteration of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.

2. This guarantee shall be limited to the payment of a sum of money.

3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.

4. This guarantee shall remain in 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.

5. Our total liability hereunder shall not exceed the sum of _____

   _____

   _____

   _____ (R_____)

6. The guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon the Guarantor's liability hereunder shall cease.

7. We hereby choose our address for the serving of all notices for all purposes arising here from as

_____

IN WITNESS WHEREOF this guarantee has been executed by us at _____

on this _____ day of _____ 20____

As witnesses

1. _____

_____
Signature

2. _____

Duly authorised to sign on behalf of _____

Address _____

_____

C1.4 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No 85 OF 1993

THIS AGREEMENT is made between ……

(Hereinafter called the Employer) of the one part, herein represented by: ……

……

In his capacity as: ……...

AND: ……..

(hereinafter called the Contractor) of the other part, herein represented by: ……..

……..……..

in his capacity as: ……...

duly authorized to sign on behalf of the Contractor.

WHEREAS the Contractor is the Mandatory of the Employer in consequence of an agreement between the Contractor and the Employer in respect of

CONTRACT NO: 8/2/1/473 – Rehabilitation of Abaqulusi Local Municipal Offices at Emondlo

for the construction and completion of the works;

AND WHEREAS the Employer and the Contractor have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHSA Amendment Act No 181/1993 (hereinafter referred to as the Act);

NOW THEREFORE the parties agree as follows:

1. The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the regulations promulgated in terms thereof.

2. The Contractor undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations: Provided that should the Employer have prescribed certain arrangements and procedures that same shall be observed and adhered to by the Contractor, his officials and employees. The Contractor shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.

3. The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the Act and Regulations, and the Contractor expressly absolves the Employer and the Employer's Consulting Engineers from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.

4. The Contractor agrees that any duly authorized officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the Contractor has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or to take such steps it may deem necessary to remedy the default of the Contractor at the cost of the Contractor.

5. The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full

details in writing of such investigation, complaint or criminal charge.

Thus signed at ……..……...……...……. for and on behalf of the **CONTRACTOR** on this the …… day of ……....……..…… 20……

SIGNATURE: ……..

NAME AND SURNAME: ……

CAPACITY: ……..

WITNESSES: 1. .....

2. .....

Thus signed at ……. for and on behalf of the **EMPLOYER** on this the ……... day of ……..…… 20……

SIGNATURE: ……..

NAME AND SURNAME: ……

CAPACITY: ……....

WITNESSES: 1. .....

2. .....

PART 2: PRICING DATA

TABLE OF CONTENTS

PAGE (S)

C2 PRICING DATA

PRICING INSTRUCTIONS

GENERAL PREAMBLE TO THE BILL OF QUANTITIES

a) All items in the Bill of Quantities, except where otherwise specified in Clause 8 of a Standardised Specification or in the Project Specification, shall be measured and shall cover operations as recommended in the standard system of measurement of civil engineering quantities, published under the title “Civil Engineering Quantities”, by the South African Institution of Civil Engineering.

b) The basis and principles of measurement and payment are described in this section (Pricing Instructions) and Clause 8 of each of the Standardised Specifications for Civil Engineering Construction. The applicable SABS 1200 Standardized Specifications are listed in the Scope of Work, Portion 1: Project Specification. Variations and amendments to the Standardised Specifications are contained in the Scope of Work, Portion 2: Variations and Additions to the Standardised Specifications.

c) Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification or the Scope of Work, conflict with the terms of the Bill of Quantities, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

d) The clauses in a specification in which further information regarding the Schedule item may be found are listed in the “Payment Refers” column in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of listed items. Further information and specifications may be found elsewhere in the Contract Documents. Standardised Specifications are identified by the letter or letters which follow SABS 1200 Standardized Specifications.

e) Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

f) The quantities set out in the Bill of Quantities are the estimated quantities of the Contract Works, but the Contractor shall be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed Works shall be computed from the actual quantities of work done, valued at the relevant unit rates and/or prices.

g) The rates and/or prices to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such rates and/or prices shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents, as well as overhead charges and profit. Reasonable charges shall be inserted as these shall be used as a basis for assessment of payment for additional work that may have to be carried out.

h) 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 will be considered to be covered by the other prices or rates in the Schedule.

i) The units of measurement described in the Bill of Quantities are metric units. Alternatives used are as follows :

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000kg)
m^2	=	square metre	No.	=	number
m^2 pass	=	square metre pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m^3	=	cubic metre	MN.m	=	meganewtom-metre
m^3km	=	cubic metre-kilometre	P Csum	=	Prime Cost sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	percent
MPa	=	megapascal	kW	=	kilowatt

j) For the purpose of this Bill of Quantities, where applicable, the following words shall have the meanings hereby assigned to them:

Unit : The unit of measurement for each item of work as defined in the SABS 1200 Standardized Specifications.
Quantity : The number of units of work 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 Bills of Quantities but the quantity of work of which is not measured in any units.

k) Arithmetical errors in the Bill of Quantities shall be corrected in accordance with Clause F3.9 of the Conditions of Tender. Should there be any discrepancy between rates and/or prices written in the Assessment Schedule and the Bill of Quantities, the latter shall govern.

l) The Bill of Quantities shall be completed by hand in **BLACK PEN INK**.

Special payment conditions

This clause shall be read in conjunction with the 'Penalties' clause(s). Where the penalty clause shall always receive precedence over this clause, should it be found that duplicative financial corrective measures exist.

Provided previously

The Contractor shall not re-execute works under this Contract where he has successfully executed works for the Employer under a previous contract(s) that comply with the requirements of this Contract. However, where applicable the Contractor shall:

a) clearly state this in his qualifications; and

b) still provide the associated rates and prices in the schedule in the associated line item, but not calculate an associated amount.

The Employer shall at his sole discretion decide to re-execute such works.

Materials and equipment

The Employer shall not provide any works material and equipment, as this shall be provided by the Contractor and deemed to have been included in his provided activity rates or prices.

Confined space

The Contractor shall note that work activities shall be executed within confined spaces, and it shall be deemed that allowance has been made in all activity pricing.

Contract Price Adjustment

The effect of changes in prices or law on the amounts due shall be adjusted on the following basis:

a) No price adjustment over the first 12-month period of the Contract.

b) On the 12-month anniversary date of the signing of the agreement the rates shall be adjusted by twelve-month year on year CPI index (as published in the monthly bulletin PO141.1 of statistics South Africa) ruling on the 12-month anniversary date of the signing of the .

Preliminary and General

Preliminary and General items shall be limited to a maximum of twenty five percent (20%) of the total Contract Value.

Contractor Appointment

Contractors will only be appointed for value of work in their CIDB grading category only.

Rates Negotiation

Rates may be negotiated with the short-listed Tenderers.

Payment for the labour-intensive component of the works:

Those parts of the works to be constructed using labour-intensive methods are marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a deviation from the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

Where minimum labour intensity is specified in the design, the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity targets.

Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict

Linkage of Payment for Labour-Intensive Component of Works to Submission of Project Data

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframes stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted. The client may institute a penalty relating to outstanding labour information.

The following information shall be maintained on site and submitted in electronic/hard copy formats:

- Certified ID copies of all locally employed labour
- Signed Contracts between the employer and the EPWP Participants
- Attendance Registers for the EPWP Participants
- Proof of Payment of EPWP Employees
- Monthly Reporting Template as per EPWP requirements

C2.2 BILL OF QUANTITIES

SIGNED ON BEHALF OF TENDERER: .....

CONTRACT NO: XX/2025-2026
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PRELIMINARY AND GENERAL

ITEM	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT R - c
	SABS 1200 A	BILL NO.1 PRELIMINARY AND GENERAL					
	8,3	**SCHEDULED FIXED-CHARGE AND VALUE RELATED ITEMS**					
1,1	8.3.1	Contractual Requirements		Sum	1		
	8.3.2	Establishment of Facilities on the Site :					
	8.3.2.1	Facilities for Engineer (SABS 1200 AB)					
1,2		c) Nameboard		No	2		
	8.3.2.2	Facilities for Contractor					
1,3		a) Offices and storage sheds		Sum	1		
1,4		b) Workshops		Sum	1		
1,5		e) Ablution and latrine facilities		Sum	1		
1,6		f) Tools and Equipment		Sum	1		
1,7	8.3.3	Other Fixed-charge obligations		Sum	1		
1,8	8.3.4	Removal of Site Establishment		Sum	1		
	8,4	**SCHEDULED TIME-RELATED ITEMS**					
1,9	8.4.1	Contractual Requirements		Sum	1		
	8.4.2.2	Facilities for Contractor					
1,10		a) Offices and storage sheds		Sum	1		
1,11		b) Workshops		Sum	1		
1,12		e) Ablution and latrine facilities		Sum	1		
1,13		f) Tools and equipment		Sum	1		
1,14	8.4.3	Supervision for Duration of Construction		Sum	1		
1,15	8.4.4	Company and head office overhead costs for Duration of the Contract		Sum	1		
1,16	8.4.5	Other time-related obligations		Sum	1		
	8,7	**DAYWORKS**					
		Labour					
1,17		a) Foreman		hr	10		
1,18		b) Skilled		hr	20		
1,19		c) Unskilled		hr	60		
1,20		d) Surveyor		hr	20		
1,21		e) Material acceptance testing		Prov Sum	1		
1,22		Contractor's markup on item 21		%			
1,23		f) Allowance for additional Materials		Prov Sum	1		
1,24		Contractor's markup on item 23		%			
1,25		e) Liaison Officer		Prov Sum	0		
1,26		Contractor's markup on item 25		%	10%		
1,27		f) Appointment of Student (ARE)		Sum	0		
1,28		Contractor's markup on item 27		%	10%		
1,29		g) Allowance for PSC		Prov Sum	1		
1,30		Contractor's markup on item 29		%			
		PLANT					
		a) Backactors					
1,31		i) TLB		hr	15		
1,32		ii) 1 KW , 22 TON		hr	10		
		b) Compactors					
1,33		i) Pedestrian vibrator roller (Bomag 111 or similar)		hr	10		
1,34		ii) Self propelled vibro roller (Bomag 210 or similar)		hr	10		
1,35		i) 6m3 tip truck		hr	50		
1,36		ii) 9000 L Watercart		hr	50		
				TOTAL CARRIED FORWARD:			**R -**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PRELIMINARY AND GENERAL

ITEM	REF	DESCRIPTION		UNIT	QTY	RATE	AMOUNT R - c
		TOTAL BROUGHT FORWARD:					R -
	8,8	**TEMPORARY WORKS**					
1..37	8.8.2	Accommodation of traffic		Sum	1		
	8.8.4	Existing services					
1,38		c) Excavate by hand in soft material to expose services		m³	5		
1,39	PSA1	As-built Plans		Sum	1		
1,40	AH 14.1	Prepare of risk assessment, safe work procedures, the project H & S plan, the provision of PPE		Sum	1		
1,41	AH 14.2	Full compliancce with H & S matters during the construction period		Sum	1		
1,42	AH 14.3	Submission of a copy of the Health and safety file to the Client at the end of the contract		Sum	1		
		PROVISION OF EPWP PPE, BRANDED OVERALLS & T-SHIRT/GOLF SHIRTS					
1,43		Extra over sub-item for branding of EPWP PPE		Sum	1		
		PROVISION FOR TRAINING OF LABOUR ON THE EPWP INFRASTRUCTURE PROJECTS					
1,44		General Skills Training		Person days of	0		
1,45		Allowance for CEITS skills training of local labour		Prov. Sum	0		
1,46		Handling cost and profit in respect of sub-item 1.8.2 above.		%	0		
1,47		Training Venue (only if required)		Prov. Sum	0		
1,48		Transport and accomodation of workers for training where it is not possible to undertake the training in close proximity to the site. (provisional sum)		Prov. Sum	0		
1,49		Handling cost and profit in respect of sub-item 1.48 above.		%	0		
		CPG MENTOR					
1,50		Provide the Provisional Sum to pay for "Enterprise Development Support" of targeted sub-contractors, on an adhoc basis at the sole discretion of AbaQulusi Local Municipality.		Prov. Sum	0		
1,51		Handling cost and profit in respect of sub-item 1.50 above.		%	0		
		TOTAL CARRIED FORWARD TO SUMMARY:					

CONTRACT NO: **8/02/1/611**
PROJECT: **MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY**
SECTION: **EARTHWORKS**

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
	SABS	**BILL NO. 2**					
	1200 D	**EARTHWORKS**					
		For Preambles refer to 'Model Preambles to All Trades'					
		SUPPLEMENTARY PREAMBLES					
		Proprietary items or materials					
		Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent					
		Nature of Ground					
		Classification of material other than "soft excavation" shall be agreed with the Engineer before excavation can commence. The Contractor shall inform the Engineer if and when the nature of the material being excavated changes to such an extent that a new classification for further excavation is warranted. Failure on part of the Contractor to advise the Engineer thereof in good time shall entitle the Engineer to classify, at his discretion, such excavation as may have been executed in material of a different nature.					
		For the purpose of the contract all material will either be classed as soft, intermediate , hard rock or Boulder Class A					
		No differentialtion will be made between soft and Boulder Class B excavation.					
		The Contractor will be expected to make his own assessment in this regard and to price the rates accordingly					
		No claim for rock excavation will be enetertained unless the Contractor has has timeously notified the Engineer thereof prior to backfilling.					
		Classes of excavation					
		Boulder excavation Class B - shall be classified as soft excavation					
		Carting away of excavated material					
		Description of carting away of excavated material shall be deemed to include loading excavated material onto trucksdirectly from the excavation or, alternatively, from stock piles situated on the building site.			0		
		Dewatering of excavations					
		The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise					
		Accurate records of all such dewatering shall be kept to determine the total volume of waterso removed and a clear distinction shall be made between water from subterranean sources and other water					
2,1	PSD	**Site clearance**					
	8.3.1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	LI	m2			
2,2	8.3.1	Stripping average 150mm thick layer of top soil and stockpiling on site		m2			
2,3	PSD	**EXCAVATION OTHER THAN BULK**					
	8.3.3	Excavation in earth not exceeding 2m deep					
2,4		Reduced levels under floors	LI	m3			
2,5		Trenches	LI	m3			
2,6		Holes	LI	m3			
		Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 98% Mod AASHTO density					
2,7		Exceeding 0.5m and not exceeding 1.5m deep for placing and removing formwork to walls etc 500mm away from excavated face	LI	m2			
		TOTAL CARRIED FORWARD					

CONTRACT NO: 8/02/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: EARTHWORKS

ITEM NO	Ref	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD					
	8.3.3	**Extra over trench and hole excavations in earth for excavation in**					
2,8		Hard Rock		m3			
	PSD	**Extra over all excavations for carting away**					
2,9	8.3.14	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor		m3			
2,10		**Risk of collapse of excavations**					
		Sides of trench and hole excavations not exceeding 1.5m deep	LI	m2			
		Keeping excavations free of water					
2,11		Keeping excavations free of all water other than subterranean water		Item			
		EARTHFILLING, ETC.					
		Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density					
2,13		Backfilling to trenches, holes, etc	LI	m3			
		Earth filling G5 supplied by the contractor compacted to 98% Mod AASHTO density					
2,14		Under floors		m3			
		Compaction of surfaces					
2,15		Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density		m2			
		Prescribed density tests on filling					
2,16		Modified AASHTO Density test		No			
		Soil insecticide					
2,17		Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	LI	m2			
2,18		To bottoms and sides of trenches etc	LI	m2			
		TOTAL CARRIED FORWARD TO SUMMARY					

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: CONCRETE, FORMWORK AND REINFORCEMENT

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
	SANS	**BILL NO. 3**					
	1200 G	**CONCRETE, FORMWORK AND REINFORCEMENT**					
		For Preambles refer to 'Model Preambles to All Trades'					
		SUPPLEMENTARY PREAMBLES					
		Propriety items or materials					
		Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent					
		Tests					
		The unit rate for concrete shall not include for the cost of testing					
		As the concrete used on this contract will involve small quantities the Engineer will decidewhen testing is to be done. The Contractor is however required to provide a minimum of 3 moulds and to make the tests					
		Formwork					
		Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use					
		The vertical strutting shall be carried down to such construction as is sufficiantly strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself					
		UNREINFORCED CONCRETE					
		10MPa/19mm concrete					
3,1		Surface blinding under footings and bases	LI	m3	0,0		
		REINFORCED CONCRETE					
		25MPa/19mm concrete					
3,2		Surface beds on waterproofing		m3	R -		
3,3		Stairs including landings, beams and inverted beams		m3	0		
3,4		Stub columns		m3	0		
3,5		Ramps		m3	0		
3,6		Concrete Apron		m3	0		
3,7		Concrete Walkway		m3	0		
3,8		V-drain		m3	0		
		Thickening under surface bed					
3,9		30MPa/19mm concrete					
3,10		Slabs including beams and inverted beams		m3	0		
		REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
		25MPa/19mm concrete					
3,11		Strip footings		m3	0		
3,12		Pad footings		m3	0		
3,13		Surface beds		m3	0		
		TEST BLOCKS					
3,14		Making and testing 150 x 150 x 150mm concrete strength test cube		No	6		
		TOTAL CARRIED FORWARD					**R -**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: CONCRETE, FORMWORK AND REINFORCEMENT

ITEM NO	Ref	DESCRIPTION		UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD					**R -**
		CONCRETE SUNDRIES					
		Finishing top surfaces of concrete smooth with a wood float					
3,15		Surface beds, slabs, etc		m2	739,0349		
3,16		Tread and risers		m2	33,5925		
		Finishing top surfaces of concrete smooth with a steel trowel					
3,17		Surface beds, slabs, etc to falls		m2	739,0349		
		Finishing top surfaces of concrete smooth with a power float					
3,18		Surface beds, slabs, etc		m2	739,0349		
		FORMWORK					
		ROUGH FORMWORK (DEGREE OF ACCURACY II)					
		Rough formwork to sides					
3,19		Pad footings		m2	38,4		
3,20		Sloping ramps		m2	3,84		
3,21		Edges, risers, ends and reveals not exceeding 300mm high or wide		m	0		
3,22		Sloping and stepped outer edges of stairs not exceeding 300mm high extreme		m	0		
		Rough formwork to soffits					
3,23		Stairs with sloping soffits		m2	3,84		
		Rough formwork to sides and soffits					
3,24		Slabs propped up not exceeding 1,5m high		m2	3,84		
		SMOOTH FORMWORK (DEGREE OF ACCURACY II)					
		Smooth formwork to sides					
3,25		Square stub columns in foundations		m2	3,84		
		MOVEMENT JOINTS					
		Saw-cut joints			30,9051		
3,26		3,2mm x 30mm Deep saw cut joints in top of concrete		m	70		
		Isolation joints with 10mm polystyrene including 10 x 10mm polysulphide bead between vertical brick and/or concrete surfaces					
3,27		10mm Joints not exceeding 300mm high		m	70		
		REINFORCEMENT					
		Plain round mild steel bar reinforcement and high yield deformed steel bar reinforcement, including hoisting or lowering and fixing in position complete					
3,28		6mm to 40mm Diameter bar reinforcement		t	1		
		Fabric reinforcement					
3,29		Type 193 fabric reinforcement in concrete surface beds, slabs etc.		m2	67,18499		
		TOTAL CARRIED FORWARD TO SUMMARY					

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: WATERPROOFING

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 5					
		WATERPROOFING					
		For Preambles refer to 'Model Preambles to All Trades'					
		SUPPLEMENTARY PREAMBLES					
		Waterproofing					
		Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets, etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
		Propriety items or materials					
		Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent					
		DAMPPROOFING OF WALLS AND FLOORS					
		One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course or equal approved					
5,1		In walls		m2	82		
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting or equal approved sealed at laps with "Gunplas Pressure Sensitive Tape"					
5,2		Under surface beds		m2	67		
		Prepare and apply two coats 'Brixeal' bitumen emulsion waterproof compound or equal approved					
5,3		On bagged brick walls		m2	748		
		JOINT SEALANTS ETC					
		Silicone rubber base one component sealing compound					
5,4		In joints in steel frames and brickwork or concrete surfaces		m	161		
		Polysulphide sealing compound including backing cord, bond breaker, primer, etc.					
5,5		3,2 x 30mm In saw cut joint in floors		m	15		
5,6		10 x 100mm In isolation joints		m	31		
		TOTAL CARRIED FORWARD TO SUMMARY				**R**	**-**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: ROOF COVERINGS, ETC

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 6 **ROOF COVERINGS, ETC** For Preambles refer to 'Model Preambles to All Trades' **SUPPLEMENTARY PREAMBLES** **Proprietary items or materials** Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent **Fixing** Fixing shall be done according to SABS 1200HB with minimum 225mm end laps CHROMADEC ROOF SHEETING PAINTED BLACK AND ACCESSORIES Fixed on 76x50mm timber purlins at 1250c/c max all to manufactures detials and specification Fixed to 114x38mm timber trusses at 760mm c/c strapped to 144x38 mm wall plates					
6,1		Roof covering with pitch not exceeding 10 degrees		m2	730,48		
6,2		462mm Girth aluminium ridge flashing to match roof sheeting as per manufactures specification and detail complete		m	173,8		

TOTAL CARRIED FORWARD TO SUMMARY	**R -**

CONTRACT NO: **8/2/1/611**
PROJECT: **MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY**
SECTION: **IRONMONGERY**

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 9 **IRONMONGERY** For Preambles refer to 'Model Preambles to All Trades'					
		SUPPLEMENTARY PREAMBLES **Propriety items or materials** Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent					
		Finishes to ironmongery Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded					
		Fixing Unless otherwise described all ironmongery shall be deemed to be fixed to timber, complete with and including matching screws: a. "Bolted on" shall mean fixed with bolts b. "Plugged" shall mean fixed with matching screws to and including hardwood plugs set in brickwork, blockwork or concrete					
		SUNDRIES Kimberly Clark or equally approved					
9,1		Professional Deca roll toilet tissue dispenser ref: 328898 overall size 278 x 123 x 300mm high		No	8		
9,2		Professional series 1 folded towel dispenser ref: 099060, overall size 338 x 149 x 479mm high		No	6		
9,3		Professional series 1 twinpak skincare soap dispenser ref: 921950, overall size 184 x 110 x 264mm high		No	6		
		TOTAL CARRIED FORWARD TO SUMMARY				**R**	**-**

CONTRACT NO: **8/2/1/611**
PROJECT: **MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY**
SECTION: **PLASTERING**

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 11					
		PLASTERING					
		For Preambles refer to 'Model Preambles to All Trades'					
		SUPPLEMENTARY PREAMBLES					
		Propriety items or materials					
		Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent					
		INTERNAL PLASTER					
		Cement plaster on brickwork					
11,1		On walls	LI	m2	476,58		
11,2		On narrow widths	LI	m2	22,783464		
		EXTERNAL PLASTER					
		One coat cement plaster on brickwork					
11,3		On walls		m2	822,99767		
		GRANOLITHIC					
		Untinted granolithic on concrete with Class I finish					
11,4		30mm thick on floors and landings		m2	0		
11,5		Skirting 150mm high covered at junction with floor		m	0		
		TOTAL CARRIED FORWARD TO SUMMARY				**R**	**-**

CONTRACT NO: **8/2/1/611**
PROJECT: **MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY**
SECTION: **TILING**

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 12 **TILING** For Preambles refer to 'Model Preambles to All Trades' **SUPPLEMENTARY PREAMBLES** **Propriety items or materials** Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent WALL TILING 400 x 400mm Johnson ceramic wall tiles to plaster (plaster elsewhere measured). Apply approved adhesive to the background using a notched floor trowel. Grout with white approved anti-bacteria grouting 5mm wide (colour to be confirmed by architect)					
12,1		On splashbacks 1. Materials (nett area) - R 100.00/m2 PC amount of R /m2 2. Proportion of rate adjustable related to PC amount (e.g: waste, etc.) - R 3. Proportion of rate not adjustable (e.g:labour,etc.) - R TOTAL (to rate column)- R		m2	176,904		
		FLOOR TILING 400 x 400mm Johnson ceramic tiles fixed with adhesive and with 8mm joints in both directions and flush pointed with tinted waterproof jointing compound and sealed as per manufacturer's specifications (colour to be confirmed by engineer)					
12,2		On floors and landings 1. Materials (nett area) - R 100.00/m2 PC amount of R /m2 2. Proportion of rate adjustable related to PC amount (e.g: waste, etc.) - R 3. Proportion of rate not adjustable (e.g:labour,etc.) - R TOTAL (to rate column) - R		m2	665,91096		
12,3		Skirting 150mm high 1. Materials (nett area) - R 100.00/m2 PC amount of R /m2 2. Proportion of rate adjustable related to PC amount (e.g: waste, etc.) - R 3. Proportion of rate not adjustable (e.g:labour,etc.) - R TOTAL (to rate column) - R		m	319,33		
		TOTAL CARRIED FORWARD TO SUMMARY				**R**	**-**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PLUMBING AND DRAINAGE

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 13 **PLUMBING AND DRAINAGE** For Preambles refer to 'Model Preambles to All Trades' **SUPPLEMENTARY PREAMBLES** **Propriety items or materials** Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent **uPVC pipes and fittings:** Soil, waste and vent pipes and fittings shall be solvent weld jointed Where uPVC bends are specified, they shall have a minimum pressure rating of 16 bar irrespective of the rating of the pipe to which they are attached **Copper pipes:** Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground **Fixing of pipes** Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level **Reducing fittings** Where fittings have reduced ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do soon the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained **Flush pans** Flush pans shall have straight or side outlets and "P" pr "S" traps as necessary **Stainless steelbasins, sinks, wash troughs, urinals, etc.** Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable **Waste unions** Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings **STORMWATER DRAINAGE** **Concrete pipe**					
13,1		375mm Diameter concrete stormwater pipes in Class B bedding including earthwork item, etc complete		m	58		
		TOTAL CARRIED FORWARD				**R**	**-**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PLUMBING AND DRAINAGE

ITEM NO	Ref	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD					**R -**
13,2		6m x 2m Reno matress including earthworks, galvanising and plastic coating, etc complete as per engineer's detail		No	1		
		Sundries					
13,3		Standard stormwater headwall for a 375mm Diameter pipe including earthworks, concrete, reinforcement and masonry items, etc complete		No	1		
		Testing:					
13,4		Allow for testing the whole of the Stormwater Drainage to the satisfaction of the Architect and local Authorities. All defective is to be taken out and replaced at the Contractor's expense and whole re-tested until found satisfactory.		Item	1		
		RAINWATER DISPOSAL					
		Watertite' or other approved pre painted aluminium:					
13,5		200 x 200mm Eaves box gutters		m	133,54		
13,6		Extra over gutter for stopped end		No	8		
13,7		Extra over gutter for outlet for pipe		No	8		
		Marley Streamline uPVC					
13,8		160mm Diameter downpipes		m	30,4		
13,9		Extra over for bend		No	8		
13,10		Extra over for shoe		No	8		
		SANITARY FITTINGS					
13,11		Franke Grade 304 18/10 stainless steel Contract Model SA94 single end bowl inset sink (code: 310507) 900 x 460mm wide fitted with 'Franke' 15mm "Cascade Swivel" chrome plated sink mixer (code: 303355), complete		No	6		
13,12		White vitreous china lavatory one tap hole basin as "Vaal Hibiscus 702303" fixed to walls on and including two no. 10mm fixing bolts code 8448Z0 on a classic pedestal code 715000 fitted with 32mm chromium plated basin waste fitting code 303 with anti-theft plug and spindle "Cobra 309-32" and one "Cobra 505-21B" chrome medical elbow action pillar tap		No	6		
13,13		White vitreous china floor mounted pan as "Vaal Afsam" fitted complete with heavy duty double flap seat and FJ2.100 flush valve complete with flush pipe		No	8		
13,14		Protea paraplegic white vitreous china floor mounted paraplegic washdown suite (product cide 7502) comprising 90dia outlet pan (product code 7502) and matching 9 litre cistern (Product code 710539) including lid, fitments, etc. with purpose made chromium plated side mounted flush lever, bedded in 4:1 cement mortar on concrete floors		No	6		
		1.2mm Thick A.I.S.I Grade 304 (18/10) stainless steel:					
13,15		Franke or other approved stall urinal 1800mm long complete with inlet flush pipe and junior flush valve, grouted, solid, etc.		No	1		
		TRAPS					
		uPVC traps:					
13,16		100mm uPVC trap		No	2		
		Brass traps, waste unions, etc:					
13,17		75 x 50mm Chromium plated bottle trap as "Cobra 345/50"		No	6		
13,18		75 x 50mm Chromium plated bottle trap as "Cobra 340"		No	6		
		TOTAL CARRIED FORWARD					**R -**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PLUMBING AND DRAINAGE

ITEM NO	Ref	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD					R -
		TAPS, VALVES, ETC					
13,19		22mm Brass fullway screw down wheelhead valve as "Cobra 1003/125-22" and joints to copper pipe		No	3		
13,20		35mm Brass fullway screw down wheelhead valve as "Cobra 1003/125-35" and joints to copper pipe		No	3		
		SANITARY PLUMBING					
13,21		Supply & install complete waste fittings for toilet to bulk sewer including builders work, complete		No	5		
13,22		Supply & install complete fittings for urinals to bulk sewer including builders work, complete		No	1		
13,23		Supply & install water fittings for wash hand basins to bulk water		No	3		
		SOIL DRAINAGE					
		Note: Prices for all soil drain pipes in ground are to include for bedding on and surrounding with approved granular material supplied and carted on to site by the contractor to a minimum thickness of 150mm below and 300mm above the pipe and for depositing the excavated material in spoil heaps where directed on site.					
		uPVC 'class 34' pipes:					
13,24		160mm Diameter uPVC sewer pipe including excavation not exceeding 2m deep	LI	m	50		
		Manholes, etc.					
13,25		1200mm Diameter precast concrete ring manholes with medium duty concrete lids complete as per engineer's detail		No	0		
		Testing:					
13,26		Allow for testing the whole of Soil Drainage to the satisfaction of the Architect and Local Authorities. All defective work is to be taken out and replaced at the Contractor's expense and the whole re-tested until found satisfactory.		Item	1		
		SANITARY PLUMBING					
		Water Supply					
		High density Polyethylene (HDPE) pipes					
13,27		50mm Diameter HDPE PE 80 Class 10 pipes with fittings in bedding including excavation not exceeding 1.5m deep		m	69		
13,28		63mm Diameter HDPE PE 80 Class 10 pipes with fittings in bedding including excavation not exceeding 1.5m deep		m	75		
13,29		75mm Diameter HDPE PE 80 Class 10 pipes with fittings in bedding including excavation not exceeding 1.5m deep		m	105		
13,30		Twin booster pump		No	1		
13,31		Isolation valve as per detail		No	1		
13,32		Fire Hose reels		No	2		
		Septic tank complete as per Engineers detail		Sum	0		
		110mm Diamater geopipe for evapotransporation area laid to falls in ground including excavations not exceeding 1500mm deep backfilling, 19mm stone encasing minimum 100mm thick around pipe and "Kaytec U23" filter fabric wrapped around stone encasing all as per Engineers detail		m	0		
		ELECTRIC WATER HEATERS					
		"Kwikot" or similar approved					
		250 Litre Standard 600i Dual electric horizontal water heater (Code : EF-250-2D-I) complying with SABS 151-2002, overall size 1650 x 535mm high		No.	1		
		TOTAL CARRIED FORWARD TO SUMMARY					R -

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PAINTWORK

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 15 **PAINTWORK** For Preambles refer to 'Model Preambles to All Trades' **SUPPLEMENTARY PREAMBLES** **Propriety items or materials** Proprietary items or materials where specified are to be the brand specified - or other approved - by the client ot the client's agent **SABS Specifications** Matt or eggshell decorative paint for interior works: SABS 515 High gloss enamel paint: SABS 630 Grade I Primers for wood for external work: SABS 678 Type I Primers for wood for internal work: SABS 678 Type III Zinc chromate primers for steel: SABS 679 Type I Undercoats for paints (except emulsion paint): SABS 681 Type 1 Aluminium paint: SABS 682 Grade II Roof paints: SABS 683 Type B (oil based) Structural steel paint: SABS 684 Type B Wash primer (mech etch): SABS 723 Road marking paint: 731 part 1 Varnish for interior use: SABS 887 Type I Roof paints: SABS 940 (emulsion based) Emulsion paints: SABS 1227 (textured: interior / exterior) Alkali - resistant primer: SABS 1416 Emulsion paints: SABS 1586 (gloss, semi-gloss, matt : interior / exterior) Calcium plumbate primer: SABS 5912 **DESCRIPTIONS** Descriptions of paintwork shall be deemed to include for all cutting in **PAINT SPECIFICATIONS** All painting shall be done in accordance with "Plascon-Evans" specifications PAINTWORK ETC TO NEW WORK ON FLOATED PLASTER One coat 'Plaster Primer' and two coats 'Plascon Velvaglo' or equal approved paint					
15,1		On internal walls - wet area		m2	476,58		
		TOTAL CARRIED FORWARD				**R**	-

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: PAINTWORK

ITEM NO	Ref	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD					**R -**
		One coat 'Plaster Primer' and two coats 'Plascon Double Velvet' or equal approved paint					
15,2		On internal walls	LI	m2	476,58		
		One coat "Dulux Trade Alkali Resistance Primer" and two coats "Dulux Trade 100 Low Sheen" paint or equal approved exterior quality paint					
		On external walls		m2	822,99767		
		ON PLASTERBOARD					
		One coat 'Plascon Wall and All' (thinned) pure Acrylic paint and one coat 'Plascon Wall and All' or equal approved paint					
15,3		On Gypsum ceiling board		m2	605,3736		
		ON METAL					
		One coat 'Plascon Professional High Build Zinc Phosphate Primer' or equal approved primer					
15,4		On backs of door frames		m	0		
		One coat 'Plascon Professional High Build Zinc Phosphate Primer' and two coats 'Plascon Water based enamel' paint or equal approved paints					
15,5		On door frames		m2	0		
15,6		On windows (both sides measured flat)		m2	0		
		ON WOOD					
		One coat 'Plascon Woodcare Pre treatment' or equal approved primer					
15,7		On backs of frames, linings, skirtings, etc not exceeding 300mm wide	LI	m	0		
		Prepare and prime with one coat 'Plascon Woodcare Pre treatment' and two coats 'Plascon Woodcare Interior' water based wood varnish to be matt finish or equal approved varnish					
15,8		On doors (both sides measured flat)	LI	m2	0		
15,9		On door frames	LI	m2	0		
15,10		On open slatted shelves, seats, etc of 32 x 32mm slats at 90mm centres (both sides measured over the full flat area)		m2	0		
15,11		On shelves		m2	0		
		TOTAL CARRIED FORWARD TO SUMMARY					**R -**

CONTRACT NO: 8/2/1/611
PROJECT: MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY
SECTION: EXTERNAL WORKS

ITEM NO	REF	DESCRIPTION	LIC	UNIT	QTY	RATE	AMOUNT
		BILL NO. 18					
		EXTERNAL WORKS					
		For Preambles refer to 'Model Preambles to All Trades'					
		SITE CLEARANCE, ETC.					
18,1	205	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc		m2	1337		
18,2	206	Stripping average 150mm thick layer of top soil and stockpiling on site		m2	1337		
		BULK EXCAVATION, FILLING, ETC					
		Bulk earthworks					
18,3	207	Cut to fill and compact		m3	10		
		EXCAVATION, FILLING, ETC OTHER THAN BULK					
		Excavation in earth not exceeding 2m deep					
18,4	208	Reduced levels for parking area		m3	401		
		Extra over all excavations for carting away					
18,5	209	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor		m3	401		
		Earth filling G5 supplied by the contractor compacted to 98% Mod AASHTO density					
18,6	210	Parking area		m3	75		
		ACCESS ROAD					
18,7	211	a) Road-bed preparation and compaction of material Minimum of 100 % mod. AASHTO maximum density		m^3	326		
18,8		Cut to fill					
	212	a) Compact to 100 % mod. AASHTO maximum density		m^3	10		
18,9		Borrow to fill from commercial source (G7 material)					
	213	a) Compact to 93 % mod. AASHTO maximum density		m^3	401		
18,10		Cut to spoil or stockpile from					
	214	a) Soft excavation		m^3	10		
18,11	215	Overhaul		m^3km	2000		
		Surface Finishes					
18,12	216	Gravel surface layer (Imported from commercial source, G5 ,150mm thick, compacted to 95% Mod AASHTO Density)		m^3	0		
		GRASSING, ETC					
		Topsoiling					
18,13	217	Topsoiling to platform 100mm thick obtained from prescribed stock piles		m2	1878		
		Grassing, ground covers, etc					
18,14	218	L.M. Lawn roots in rows including ground preparations fertilizer,watering and maintenance		m2	1000		
		FENCING					
		Security fence constructed of 2.4m High Concrete Precast Paling with concrete overhang and a 500 mm strip of Ripper Flat Wrap Rate to include all excavations, concrete footings, buried precast panels etc. complete as per					
18,15	219	Fencing approximately 2400mm high complete		m	150		
18,16	220	Sliding gate approximately 5000 x 2400mm high including sliding track, etc complete		No	1		
18,17	221	Pedestrial gate approximately 1500 x 2400mm high, etc complete		No	1		
		TOTAL CARRIED FORWARD					**R -**

CONTRACT NO: **8/2/1/611**
PROJECT: **MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY**
SECTION: **PROVISIONAL AMOUNTS**

ITEM NO	Ref	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		BILL NO. 19				
		PROVISIONAL AMOUNTS				
		For Preambles refer to 'Model Preambles to All Trades'				
		PROVISIONAL AMOUNTS FOR SUB-CONTRACTS				
19,1		Provide the amount of R120,000.00 (One hundred and twenty thousand rand) Nett for the drilling, casing, capping and pump testing	Prov Sum	1		
19,2		Profit	%	0	5%	
19,3		Allow for general attendance	%	0	5%	
19,4		Provide the amount of R100,000.00 (One hundred and twenty thousand rand) Nett for the supply and installation of borehole pump, electrical controls etc.	Item	1		
19,5		Profit	%	100000	5%	
19,6		Allow for general attendance	%	100000	5%	
		`				
		TOTAL CARRIED FORWARD TO SUMMARY				**R -**

MONDLO OFFICES- ABAQULUSI LOCAL MUNICIPALITY COST ESTIMAT

	DESCRIPTION	AMOUNT
1	Preliminaries	
2	Earthworks	
3	Concrete, Formwork & Reinforcement	
4	Masonry	
5	Waterproofing	
6	Roof Coverings	
8	Ceilings, Partitions and Access Flooring	
9	Ironmongery	
10	Metalwork	
11	Plastering	
12	Tiling	
13	Plumbing and Drainage	
15	Paintwork	
17	Electrical Work	
18	External Works	
19	Provisional Amounts	
	Sub-Total	
	Add Contingencies (10%)	
	Sub-Total	
	Value Added Tax (VAT @ 15%)	
	TOTAL	

C3 SCOPE OF WORK

CONTENTS

B1: AMENDMENTS TO THE STANDARD SPECIFICATIONS

B2: ADDITIONAL PARTICULAR SPECIFICATIONS

PAM OHSA 1993 HEALTH AND SAFETY SPECIFICATION
PB ENVIRONMENTAL MANAGEMENT PLAN
PD EPWP REQUIREMENTS

C3.1 STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are the SABS 1200 Standardized Specifications.

Although not bound in nor issued with this Document, the following Parts of the SABS 1200 Standardized Specifications shall apply:

SABS 1200 A:	General (1986)
SABS 1200 AB:	Engineers Office (1986)
SABS 1200 C:	Site Clearance (1980)
SABS 1200 D:	Earthworks (1988)
SABS 1200 DB:	Earthworks (Pipe Trenches) (1989)
SABS 1200 DK:	Gabions and Pitching (1996)
SABS 1200 GA:	Concrete (Small Works) (1982)
SABS 1200 L:	Medium-Pressure Pipelines (1983)
SABS 1200 LB:	Bedding (Pipes) (1983)
SABS 1200 LE:	Stormwater drainage (1982)

Variations and additions to the various SABS 1200 Standardised Specifications are given in Portion B of the Project Specifications

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria.

SANS 10396:2003:	Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures
SANS 1914-1 to 6 (2002):	Targeted Construction Procurement
SANS 1921-1 (2004):	Construction and Management Requirements for Works Contracts Part 1: General Engineering and Construction Works and where accommodation of traffic is involved:
SANS 1921-2 (2004):	Construction and Management Requirements for Works Contracts; Part 2: Accommodation of Traffic on Public Roads Occupied by the Contractor.

C3.2 PROJECT SPECIFICATIONS

STATUS

The Project Specification, consisting of two parts, forms an integral part of the contract, and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments, and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for road contracts, and they may therefore cover items not applicable to this particular contract.

PS.2 DESCRIPTION OF THE SITE AND ACCESS

PS.2.1 Location of Site

The project site is in of AbaQulusi Local Municipality within the Zululand District Municipality in Kwa-Zulu Natal Province. The coordinates of the centre of the project are Latitude: 27°59'14 S and Longitude: 30°43'12 E.

PS.2.2 Access to Site

The site can be accessed from P258.

Permission as may become necessary shall be the responsibility of the Contractor to obtain.

Having been granted access to works areas by the Employer, other service authorities and private owners, the Contractor shall adhere to any agreed conditions of access and ensure the works area is left in a condition similar to when it was first accessed.

PS.2.3 Nature of the Ground and Subsoil Conditions

The Contractor will be expected to make his own assessment in this regard and to price the rates accordingly.

PS.3 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

PS.3.1 General

The Contractor is referred to SANS 1921: 2004 parts 1, 2, 3 and 5: Construction and Management Requirements for Works Contracts. This specification shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

PS.3.2 Employment of Labour

It is the intention that this Contract should make the maximum possible use of the labour force available from within the target community and which is at present underemployed.

The targets for employment are as follows:

- Women: 55%
- Youth: 40%

To this end the Contractor is to employ and train labour on this Contract.

The Contractor shall fill in the forms relating to Key Personnel and state how many key personnel he intends to employ in the various categories. The numbers stated in the above-mentioned form will be strictly controlled during the contract period and any changes in numbers shall be subject to the approval of the Engineer.

It is a condition of contract that the data sheets detailing the employment of human resources, expenditure and employment of SMMES as detailed in the tables below be submitted together with the monthly certificate timorously to the Engineer by the 10th of each month.

The definition of youth being of an age up to and including 35 years.

The unit of measurement is person days being the total number of persons in that category multiplied by the number of days worked by each person respectively.

Labour Return : (Current Month)

	Total		Adults				Youth (<35 yrs)				Disabled			
			Women		Men		Female		Male		Female		Male	
	Persons	Person days	Persons	Person days	Persons	Person days	Persons	Person days	Persons	Person days	Persons	Person days	Persons	Person days
Clerical	0	0												
Labourers	0	0												
Managerial	0	0												
Semi-skilled	0	0												
Skilled	0	0												
Supervisor	0	0												
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Expenditure

(All excl VAT)

	Previous Total	This Cert	Total to Date
Value paid to locally sourced labour resources			R -
Amount paid for accredited training			R -
Amount paid for non-accredited training			R -

SMME Schedule

Name of SMME	SMME Information		Project Information			
	No of Permanent Employees	Turnover previous 12 months	Total person days to date	Amount paid to SMME	Person days locally sourced	Total value of work

The data sheets must be submitted monthly irrespective of whether or not a payment certificate is submitted in terms of the latest cash flow.

PS.3.3 Construction Programme

(a) Preliminary Programme

The Contractor shall include with his tender a preliminary programme on the prescribed form. to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

(b) Programme in terms of Clause 12 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme.

PS.3.4 Drawings (*Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)*

The following reduced drawings which form part of the tender documents shall be used for tendering purposes only.

The following reduced (A3) drawings are enclosed herewith:

*See C5 Annexures – C5.2 Drawings

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense produce all further paper prints required for the construction of the work.

Any information which the Contractor has control over and which is required by the Engineer to complete the drawings of record shall be made available to the Engineer before the Completion Certificate is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site.

PS.3.5 Quality Assurance (QA) *(Read with SANS 1921 – 1: 2004 clause 4.4)*

The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Engineer. To this end it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Engineer will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.
The Contractor shall ensure that efficient supervisory staff, the required transport, instruments, equipment and tools are available to control the quality of his own workmanship in accordance with his QA-system. His attention is drawn to the fact that it is not the duty of the Engineer or the Engineer’s representative to act as foreman or surveyor.

PS.3.7 Testing (*Read with SANS 1921 – 1: 2004 clause 4.11*)

PS.3.7.1 Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

PS.3.7.1 Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the schedule of quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

PS.3.8 Site Establishment (*Read with SANS 1921 - 1 : 2004 clause 4.14)*

This contract is to be executed in an area surrounded rural settlements and as such safety will be paramount. Furthermore, all due courtesy must be exercised in so far as local resources are concerned (labour and materials).

The Engineer will facilitate all communication with the target community.

(a) Water and Electricity

The Contractor is to make his own arrangements in this regard and should note that the Employer shall not be held responsible for any shortages of either water or power due to unforeseen circumstances.

All water required for construction purposes is to be sourced by the Contractor and is to be allowed for in his rates.

(b) Location of Site Office

Suitable sites at each location will be identified once work commences. The contractor will need to make all necessary allowances for his own security, fencing etc.

The contractor is to provide adequate sanitary and waste facilities for his staff and is to ensure that each site camp is kept clean and neat at all times. No littering is to take place at either the camp or on the site.

The site is to be left in a neat, landscaped condition without any improvements on completion of the contract and final retention will not be released until such time as this condition has been complied with.

PS.3.9 Survey Beacons (*Read with SANS 1921 – 1: 2004 clause 4.15*)

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

PS.3.10 Existing Services (*Read with SANS 1921 – 1: 2004 clause 4.17*)

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced. The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

PS.3.11 Health and Safety (*Read with SANS 1921 - 1: 2004 clause 4.18)*

The Works will be constructed in an area inhabited by people including many children.

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in Section C1.2.2

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

PS.3.12 Management of the Environment (*Read with SANS 1921 - 1 : 2004 clause 4.19)*

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

(a) Natural Vegetation

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct in writing shall be cut down and stumped. The natural vegetation, grass and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

(b) Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

(c) Environmental Management Plan

In addition to the above, all requirements of the Environmental Management Plan (EMP) as detailed in C3.3, Particular Specifications, will be adhered to.

PS.3.13 Adverse Weather Conditions

During the execution of the Works, the Engineer's Representative will certify a day lost due to abnormal rainfall and adverse weather conditions only:

- if no work was possible on the relevant working day on any item which is on the critical path according to the latest approved construction programme; or
- if less than 30% of the work force and plant on site could work during that specific working day.

If an extension of time is granted, the Engineer shall, at his entire discretion, grant such extension without payment of additional time-related preliminary and general allowances.

PS.3.14 Overhaul

Payment will be made for overhaul on this contract where provision is made in specific items. The Free haul distance to be 10km, one way.

PS.3.15 Security

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the
employees of his subcontractors are able to identify themselves as members of the construction team.

PS.3.16 Drawings of Record

Any information in the possession of the Contractor, which is necessary for the Engineer's Representative to complete his "drawings of record", must be submitted to the Engineer's Representative before a final payment certificate and a certificate of completion will be issued.

PS.4 SITE FACILITIES AVAILABLE

PS.4.1 Contractor's camp site and depot *(Read with SANS 1921 – 1: 2004 clause 4.14)*

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

PS.4.2 Accommodation of Employees

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets must be provided for the works.

PS.4.3 Power supply, water and other services

The Contractor shall make his own arrangements concerning the supply of electrical power, water and all other services. No direct payment will be made for the provision of electricity, water and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required, or in the Contractor's preliminary and general items as the case may be.

PS.5 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC

PS.5.1 General

The Contractor will be responsible for the safe and easy passage of public traffic, pedestrian and vehicular, on sections of roads of which he has occupation or where work has to be done near traffic.

PS.5.2 Basic Requirements

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.

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective, and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Engineer to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads 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.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

PS.5.3 Payment

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the modus operandi will be considered.

PS.6 OCCUPATIONAL HEALTH AND SAFETY *(Read with SANS 1921 – 1: 2004 clause 4.14)*

PS.6.1 General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour.
For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in SECTION 6: FORMS TO BE COMPLETED BY SUCCESSFUL TENDERER.

PS.6.2 Health and Safety Specifications and Plans to be submitted at tender stage

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

The following items will require special attention

1. Excavation and compaction within restricted area.
2. Excavation of pipe trenches
3. Dust prevention.
4. Adequate traffic accommodation.

(b) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

(i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
(ii) pro-active identification of potential hazards and unsafe working conditions;
(iii) provision of a safe working environment and equipment;
(iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 5)*;
(v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
(vi) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2003.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.
Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

PS.6.3 Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.
Items that may qualify for remuneration will be specified in the Safety Specifications included or in the Project specifications.

PS.7 PROJECT REQUIREMENTS

PS7.1 SITE CLEARANCE, EXCAVATION AND FREE-HAUL

Topsoil and other removed material shall be placed within the site boundaries, at a place indicated by the Local Authority in writing. In the case where the Local Authority requires disposing of material further away from the site, the Employer's approval shall first be obtained, and Local Authority shall be consulted and approval in writing obtained to use the designated dumping place. The same applies for borrow areas outside the site boundaries. Normal regulations regarding safety, municipal by-laws, contamination of water sources, erosion, siltation etc. shall apply.

The free-haul distance shall be the entire site of works, for each project.

The contractor shall not incur any overhaul or "extra over" expenses without the written approval of the Engineer.

The overhaul distance shall be defined as the truck-haul distance measured to the nearest 0,5 km from the end of the free-haul to the disposal / borrow pit area, by the shortest practical route and shall be measured in one direction only.

No additional payment will be made for provision of access to the sites.

PS 7.2 CUT AND FILL FOR BUILDING PLATFORMS

Buildings shall be constructed completely in cut, with a minimum underfloor backfill. Should the contractor wish to construct on fill, he shall allow at his own cost, for longer columns and higher foundation walls to allow for founding on in-situ material. Access and ease of access into the building for the intended use shall remain unaltered. The Contractor shall arrange independent compaction tests, before any building is taking place, at his own cost. Building work shall be removed if there is any doubt whatsoever regarding the compaction. At least 3 evenly distributed places per site shall be tested, once off, after completion of the platform or infill. Water for compaction shall be provided by the Contractor at his own cost.

.....

PS 7.3 COMPACTION OF UNDER FLOOR FILL

All topsoil, unsuitable material and vegetation shall be removed from the building area. Suitable non-cohesive, granular backfill material shall be compacted in thin, even layers of thickness relevant to the method/machinery used, at OMC to a minimum of 95 % of Mod. AASHTO maximum density. The contractor shall only import material if absolutely necessary. He shall obtain approval from the borrow pit owner in writing before using it or obtain mining rights where applicable. Water for compaction, shall be supplied by the Contractor, at his own cost.

PS 7.4 EXISTING SERVICES

The Contractor shall contact the Engineer immediately if he discovers existing services that are in the way of the works, so that it can be avoided if at all possible. If existing services are damaged, the Contractor shall repair it as a matter of urgency at the indicated rate, even if it costs significantly more. He will not receive additional compensation in such case.

PS 7.5 WATER SUPPLY PIPE

Only SABS approved HDPE and uPVC pipe to be used. Trench depth to be determined to allow for bedding where required and 1800 mm cover for bulk. Grading of the trench shall be as such that the pipe will have no local high points between air valves/outlets, in other words, must rise continuously from the lowest points to the air valves/outlets. The Contractor shall use a dumpy level to verify this and to locate the air valves. The same applies for scour valves but obviously the other way round. The trench "pegging" cost

shall be included under the excavation cost. Long sections may be provided by the Engineer or Employer as a guide only. Trenching, bedding and selected fill as per SABS 1200 DB and LB. The trench width for pipe diameters of 300 mm and less shall be minimum pipe diameter plus 500mm (250 mm side allowance) to allow adequate working space for proper jointing and laying of pipe, but shall not be wider than pipe diameter plus 600 mm

PS 7.6 CONCRETE AND FLOORS

Water for building purposes and for the Contractor's use, shall be supplied by the Contractor, at his own cost.

Cement shall be OPC and shall conform to SABS 471. A blended mix with up to 25% PFA shall only be used following the written approval of the Engineer. Cement used shall not be older than 3 months for reinforced concrete works and older than 6 months for mass concrete. The slump of concrete mixes shall be 30- 80 mm. Curing shall take place for at least 7 days or as specified. Concrete shall be adequately compacted/vibrated but separation of material must be avoided. For structural concrete, refer to the detailed specifications on the plans regarding slump, curing, removal of formwork etc.

Floors and walls shall be constructed as such that water will not reach or stand in the passages/walkways or anywhere on the floor. Water shall also not reach or stand against any of the inside walls. Where openings are to be made to drain water, it shall be as such that it will not block, but at the same time it shall be rodent proof.

Keyed construction joints shall be placed as such that it will not be underneath walls. Where it has to cross walls perpendicularly, construction joints shall also be provided in the walls. Keyed construction joints shall be made around supports, to join construction joints in the floors.

Foundations

All foundations for buildings shall be minimum 300 mm deep and 500 mm wide regardless of detail provided on plans.

Light reinforcement shall be placed in foundations comprising three Y12 rods 75 mm from the trench bottom and 100 mm from the sides with the third rod in the bottom middle. The main reinforcement shall be held firmly in place by 75 mm concrete spacers attached to the rods with binding wire. R8 distribution steel, crossing each outer main steel member by 30 mm, thus 360 mm long for a 500 wide foundation, shall be tied to the main steel at 500 mm intervals.

Minimum overlap shall be 600mm. Hooks shall be provided at corners and intersections with walls, with minimum hook length 600 mm. The Engineer shall be consulted for further detail. Work shall not be accepted where the Engineer has not approved the reinforcement prior to concreting.

Wood floated finish

The surface shall only be wood floated sufficiently to produce a uniform surface free from screed or towel marks and shall conform with SABS 1200 G.

Steel-floated finish

The moisture film shall be allowed to harden sufficiently to prevent laitance from being worked to the surface. Where steel floating with a non-slip surface is specified, the surface shall still be smooth after making it non-slip and shall not be abrasive at all. Under no circumstances may a cement slush be used during the floating process.

Casting of concrete

No concrete shall be cast without the prior inspection of preparation work by the Engineer (except for thrust blocks)

PS 7.7 BLOCK AND BRICK WORK

The strength of blocks shall be not less than 3,5 MPa for hollow units and 7 MPa for solid units. Only SABS approved blocks shall be allowed.

Blockwork shall comply with the standards as set out in the “Standards and Guidelines” manual of the NHBRC. Stretcher bond with 10-15 mm final bed joint thickness and 5 to 20 mm vertical joint thickness shall be used. The mortar bedding shall be full in the case of hollow blocks for the foundation layers and DPC courses. Joints shall be finished flush. Hollow units to be filled with concrete around door frames. Where internal walls are jointed flush with outside walls, wall ties shall be used as per specification in the above-named manuals. Corners shall be constructed using the raking back (stepped) method and shall be fully bonded.

Light reinforcement shall be placed in the brick/blockwork over and above the normal brick force regardless of detail on plans. The reinforcement shall comprise R6 rods, overlapping minimum 300 mm and bend around corners with minimum hook length 300 mm. The reinforcement shall not cross expansion joints. Two rods shall be placed per layer, each 30 mm from the inside and outside face of the wall respectively, for three layers immediately above DPC and window/door level. Rods shall be provided with hooks at doors, expansion joints and openings. Full mortar cover shall be provided.

Controlled expansion joints in the walls, with concertina ties at 400 mm vertical spacing, shall be provided at maximum 8 m spacing regardless of detail provided on plans. The joints shall coincide with controlled expansion joint through the concrete roof.

The joints in the roof slabs shall comprise 1000 mm long Y12 rods in the centre of the slab at 200 mm intervals, 500 mm into each slab. A 600 mm long elastic plastic pipe of good fit shall be fitted on one side and sealed at the end. The other end shall penetrate the adjoining slab by 100 mm. Work shall not be accepted where the Engineer has not approved the reinforcement prior to concreting. The joints shall be formed with 10 mm bitumen impregnated soft board and shall be sealed watertight both sides with an approved elastic sealant.

PS 7.8 PAINTWORK

The final colour shall be agreed upon between the contractor and the participants of the specific project. Refer to paint specifications on the plans.

PS 7.9 COMMISSIONING AND ACCEPTANCE

The Contractor shall be responsible to commission all equipment and put in readiness for use.

The hand over/acceptance of equipment shall be preceded by a forty-eight (48) hour trail run (where applicable) by the Contractor to enable him to prove to the Engineer that all equipment and plant as a whole perform to requirements.

Where after the equipment shall be run by the Contractor as directed by the Engineer for a further period of approx. five (5) days during which thorough inspection, testing, etc of all equipment will take place to be evaluated for acceptance by the Engineer. The Contractor shall schedule this period such as to allow himself enough time to remedy,

replace etc unsatisfactory work, equipment etc and still meet the final completion date. Costs incurred by the Engineer for all unsuccessful acceptance tests will be borne by the Contractor.

When the Contractor has completed all work and the plant subsequently performs to the requirements, then the contractor shall supply all manuals and drawings as called for. Thereupon a certificate of commissioning will be issued, and a portion of the retention released. The guarantee period then commences.

PS 7.10 FINAL COMPLETION DATE

On final completion all work in terms of the contract shall be completed. A certificate of completion will be issued.

PS7.11 MAINTENANCE OBLIGATIONS

The Contractor shall maintain all equipment provided in a good working order during the defect's liability period.

The defects liability period shall commence on the day following final completion.

The Employer reserves the right to undertake any emergency repair work during the defect's liability period without the prior consent of the Contractor. The Engineer has the right to decide whether an emergency exists and shall notify the Contractor accordingly. Should this emergency repair work be caused by poor materials, faulty workmanship or neglect on the part of the Contractor, the Employer may deduct the cost of the repairs from the outstanding retention money owing to the Contractor.

After the satisfactory completion of the guarantee period, the final certificate will be issued and all retention money releases.

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS AND OTHER ADDITIONAL SPECIFICATIONS

INTRODUCTION

In certain clauses in the Standard Specifications, allowance is made for a choice to be specified in the project specifications between alternative materials or methods of construction, and for additional requirements to be specified to suit a particular contract.

Details of such alternative or additional requirements applicable to this contract are contained in Part B1 of the project specifications.

The number of each clause and each payment item in this part of the project specifications is prefixed “PS” and numbered sequentially followed by a number corresponding to the relevant clause or payment item in the standard specification in parentheses.

New clauses and payment items not covered by clauses or items in the Standard Specifications have also been included.

Additional particular specifications are also included in Part B2 and are prefixed “P” and numbered alphabetically.

PART B1: AMENDMENTS TO THE STANDARD SPECIFICATIONS

PSA GENERAL

PSA.1 MATERIALS (3)

PSA 1.1 QUALITY (3.1)

All materials used in this contract shall comply with the relevant SABS Specification (as amended) or particular specification as noted.

PSA.2 PLANT (4)

PSA.2.1 PLANT FOR CONSTRUCTION PURPOSES (No reference)

The Contractor's plant for construction purposes shall be of modern design, adaptable for the purpose for which it is required, in sound condition, and ample in capacity for carrying out the Works expeditiously.

Should the Engineer be of the opinion that the plant in use is in any way unsuitable for carrying out the Works in a manner or at a rate commensurate with the requirements of the Contract, they shall have the right to call on the Contractor at any time during the progress of the works to provide additional or improved plant and tools as may be necessary to meet these requirements.

PSA.2.2 CONTRACTOR'S CAMP (4.2)

No housing is available for the Contractor's employees, and the Contractor shall make his own arrangements with the Local Authority regarding the housing of his employees and transporting them to site.

The Contractor shall provide in locations approved by the Engineer, adequate sanitary facilities for the use of all persons engaged on the Works. Such conveniences, which shall comply with Local Authority regulations, shall be maintained in a clean and hygienic condition and shall be properly secluded from public view and their use shall be strictly enforced.

The Contractor shall make his own arrangements with the municipal authorities for any bucket removals and shall bear all the costs in connection with such service. On removal of such conveniences the sites thereof shall be left in a clean, sanitary and tidy condition.

PSA.3 PERSONAL & OTHER PROTECTIVE EQUIPMENT
(SECTIONS 8/15/23 OR THE OHS ACT)

The Contractor is required to identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal Protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered.

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

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

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

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

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

All employees shall, as a minimum, be required to wear the following PPE on any projects:

- Protective overalls
- Protective footwear
- Protective headwear
- Eye/face protection

All PPE provided to local labour working on the Expanded Public Works Programme shall be branded in accordance with the EPWP CI Manual. Typical elements which shall be branded include:

- Protective overalls
- Reflective vests
- Protective headwear

The rate for local labour shall include for the supply of EPWP branded PPE in accordance with the Provincial EPWP specifications. The rate shall include the additional cost of the specified colours for the PPE and branding in accordance with CI manual.

THE TENDERED RATE SHALL INCLUDE FULL COMPENSATION FOR BRANDING THE PPE AS DETERMINED IN THE RISK ASSESSMENTS AND AS REQUIRED FOR FULL DURATION OF THE CONTRACT.

PSA.4 EPWP SIGNBOARD

The Contractor will be required to erect a signboard displaying the EPWP logo, indicating that this project is part of the EPWP. All costs related to the provision, erection and subsequent removal of the signboard shall be refunded to the Contractor through the provisional sum included in the Schedule of Quantities for this purpose.

PSA.5 COMMUNITY LIAISON OFFICER (CLO)

The contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the local communities, the engineer and the employer. The contractor shall direct all his liaison efforts with the local communities through the appointed officer. The contractor shall, however, accept the appointed as part of his management personnel.

(a) Duties of the Community Liaison Officer

The Community Liaison Officer’s duties will be:

(i) To be available on site daily between the hours of 07h30 and 16h30 and at other time as the need arises. His normal working day will extend from morning until 17h30 in the afternoon.

(ii) To determine, in consultation with the contractor, the needs of the temporary labour for relevant skills training. He 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 interviews and community liaison.

(x) To attend monthly site meetings to report on labour and RDP matters.

(xi) All such other duties as agreed upon between all parties concerned.

(xii) To submit monthly returns regarding community liaison as illustrated in Part C5.1 of this document (form RDP 12(E)).

(b) Payment for the community liaison officer

A special pay item is incorporated in section 1200 of the bill of quantities relating to payment of the liaison officer on a prime cost sum basis. This payment shall only be made for the period for which the duties of the liaison officer are required and not necessarily for the full duration of the contract. The remuneration of the CLO shall be determined jointly by the contractor, engineer and employer.

(c) Period of employment of the community liaison officer

The period of employment of the community liaison officer shall be as decided upon jointly by the contractor, engineer and employer.

PSA.6 COMMUNITY PARTICIPATION.

PSA.6.1 PURPOSE

In order to give effect to the need for participation and transparency in the process of appointing labour, the community should participate in the decision-making process throughout the life of a project. This shall be achieved through structured engagement between those responsible for the delivery of the project and the community.

PSA.6.2 STRUCTURE AND COMPOSITION

A Project Liaison Committee (PLC) may be formed from representatives of the Employer, the Engineer, the Contractor and the Community if the project is such that a specific community can be identified.

PSA.6.3 PROCEDURES

PSA.6.3.1 The PLC deals with labour and SMME involvement on the project and shall meet at least once every month until such time as it is of the opinion that it could fulfil its tasks by meeting less frequently.

PSA6.3.2 The PLC shall make recommendations by consensus. If consensus cannot be reached, the decision of the Employer will be final in cases that have no financial implications for the Contractor or where payment is to be made from PC items. Where the financial

responsibility for the successful completion of the works rests with the Contractor, the Contractor's decision shall be final. In fulfilling its tasks, the PLC shall be guided by the relevant sections of this specification and the supplementary documents.

PSA.6.4 TASKS OF THE PLC

2.4.1 To assist with community liaison and resolution of disputes.
2.4.2 To devise fair and transparent procedures that will assist the Contractor in the engagement of labour and the award of sub-contracts to SMME's.
2.4.3 To advise on and monitor labour issues.
2.4.4 To assist in resolving labour disputes.

PSA.6.5 ASSISTANCE TO THE PLC

PSA.6.5.1 The Employer may appoint a competent local person as a Community Liaison Officer to assist the Engineer and the Contractor in the day to day liaison with the communities directly affected by the project.

PSA.7 UNEMPLOYMENT INSURANCE FUND

The contractor will be responsible for payment or contribution of UIF for all labour employed under the project. Proof of payment of UIF shall be available upon request.

PSA.8 WORKMEN'S COMPENSATION ACT

All labour employed on the site shall be covered by the Workmen's Compensation Act. The contractor shall pay in full, including the payment of the necessary levies, such amounts, as are due in terms of the Act. The contractor at the commencement of the contract shall resolve the manner in which Workmen's Compensation will be handled. Amounts paid by the contractor shall not be included in the wage rates but shall be an extra payment allowed for by the contractor.

PSA.9 LABOUR-INTENSIVE CONSTRUCTION METHODS

Labour-intensive construction shall mean the economically efficient employment of as great a portion of labour as is technically feasible to produce a standard of construction as demanded by the specifications with completion by the Due Completion Date, thus bringing about the effective substitution of labour for plant and equipment.

Appropriate portions of the Works included in the Contract shall be executed using labour-intensive construction methods.

Except where the use of plant is essential in order, in the opinion of the Engineer, to meet the specified requirements by the Due Completion Date, or where the use of plant is essential as a result of occupational health and safety considerations, the Contractor shall use only hand tools and equipment in the construction of those portions of the Works that are required in terms of these Project Specifications to be constructed using labour-intensive construction methods.

These portions of the Works shall be constructed utilizing only locally employed labour and/or the labour of local subcontractors, supplemented by the Contractor's key personnel to the extent necessary and unavoidable, unless otherwise instructed by the Engineer and in accordance with the further provisions of the relevant sections of Portion B of the Project Specifications.

Subject to considerations of occupational health and safety, the portions of the Works to be executed using labour-intensive construction methods are:

- Clearing and grubbing of the Site;
- Excavation for structures up to 1,5 m deep;

- Bedding, selected fill, backfilling and compaction of all pipe trenches irrespective of depth, but assisted by mechanical compaction equipment in order to achieve the specified densities;
- Transportation and spoiling of all trench materials, where the disposal site is located within 20 metres of the source;
- Dismantling and re-erection of fences;
- Mixing and placing of concrete;
- Construction of all brickwork required for structures; and
- Cleaning and tidying up of the Site.

PSA9.1 MATERIAL

Where possible, the contractor shall source material from within ## km of the site utilizing local labour. The material which may be sourced from site includes:
Rock for gabions and stone pitching

PSA9.2 TASK BASED ACTIVITIES

Labour Intensive activities are to be planned as task-based works where required. Task based refers to a specific amount of work to be performed which is clearly defined by a quantity and quality. Typically, a particular task can be completed within a working day.

PSA.10 REQUIREMENTS OF EXPANDED PUBLIC WORKS PROGRAMME

PSA10.1 EPWP PROJECT SPECIFICATION

As much as is economically feasible, all work shall be implemented by employing Labour Intensive Construction methods. Over and above the normal Building and Allied works to be implemented by employing skilled and unskilled labour the works specified in the “Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)” shall be undertaken using Labour Intensive Construction methods.

PSA.11 EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR INTENSIVE WORKS

Requirements for the sourcing and engagement of labour.

PSA.11.1 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.

PSA.11.2 The rate of pay for the EPWP is set by the ZDM in consultation with the community leaders.

PSA.11.3 Tasks established by the contractor must be 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.

PSA.11.4 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 11.3.

PSA.11.5 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

PSA.11.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:
a) 55 % women;
b) 55% youth who are between the ages of 18 and 35; and
c) 2% on persons with disabilities.

PSAB ENGINEER'S OFFICE

PSAB.1 MATERIAL (3)

PSAB.1.1 NAMEBOARDS (3.1)

The Contractor shall supply two nameboard in accordance with the details indicated in this document.

The board shall be placed in a position designated by the Engineer.

This board shall remain the property of the Contractor who shall dismantle and remove the said board on completion of the contract.

PSAB.1.2 OFFICE BUILDINGS (3.2)

No facilities are required for the Engineer.

PSAB.1.3 PLANT (4)

No telephone facilities are required by the Engineer.

PSC SITE CLEARANCE

PSC.1 MATERIALS (3)

PSC .1.1 DISPOSAL OF MATERIAL (3.1)

Suitable spoil sites will be located on site by the Engineer and confirmed by the issue of a site instruction. The Contractor may not make his own arrangements in this regard without the written approval of the Engineer.

PSC.2 CONSTRUCTION (5)

PSC.2.1 AREAS TO BE CLEARED AND GRUBBED (5.1)

Areas to be cleared and grubbed shall be classified as follows:

General Clearing and Grubbing

Any areas requiring particular clearing and grubbing must be agreed with the Engineer prior to any such clearing taking place. Any area cleared without the consent of the Engineer will not be measured in terms of this Clause and may result in further action being taken against the Contractor in terms of any contravention with the environmental management plan. Where the Engineer has instructed that clearing must take place or is required, it shall be measured as a strip 3m wide.

PSD EARTHWORKS

PSD.1 MATERIALS (3)

PSD .1.1 CLASSIFICATION FOR EXCAVATION PURPOSES (3.1)

Classification of material other than "soft excavation" shall be agreed with the Engineer before excavation may be commenced.

The Contractor shall immediately inform the Engineer if and when the nature of the material being excavated changes to such an extent that a new classification for further excavation is warranted. Failure on the part of the Contractor to advise the Engineer thereof in good time shall entitle the Engineer to classify, at his discretion, such excavation as may have been executed in material of a different nature.

For the purpose of this contract all material will either be classed as, intermediate, hard rock or Boulder Class A.

No differentiation shall be made between “intermediate” and “Boulder Class B” excavation.

PSD.1.2 Classes of excavation (3.1.2)

In all cases where soft founding materials is classified as suitable for culvert beddings construction, the in-situ material shall be ripped, moistened and compacted to 90& to 93% modified AASHTO density. The depth of preparation and compaction of founding material shall be indicated on drawings as specified by the engineer. Allowance for measurement and payment for this work is made in the bill of quantities under this section"

Boulder excavation Class B - Shall be classified as intermediate excavation

PSD.2 CONSTRUCTION (5)

PSD.2.1 Conservation of Topsoil (5.2.1.2)

Topsoil stripping shall be 150mm and the material shall be conserved separately for re-use as specified in the environmental management plan.

PSD.2.2 Disposal (5.2.2.3)

All excess material shall be disposed of at the designated spoil sites leveled in layers not exceeding 300 mm and compacted to 90% MOD AASHTO density.

PSD.2.3 Erosion Control Berms (Add new Clause 5.2.3.3)

Where instructed by the Engineer, earth berms shall be constructed to the dimensions shown on the drawings or to the detail instructed by the Engineer. The berms shall comprise excess fill material from the trench, shall be hauled by wheelbarrow, placed and shall be hand stamped in layers not exceeding 150mm. The berms shall be slightly overfilled before being be shaped to the detail shown on the drawings. The material shall wherever possible be sourced within the freehaul distance of 500m. After completion, the Engineer may instruct the Contractor to construct un-grouted, handpicked and packed stone pitching along the upstream edge of the berm.

PSD.2.4 Sandbag Protection to Pipe Trench (Add new Clause 5.2.3.4)

Where instructed by the Engineer, 25kg sandbags made from woven polypropylene shall be filled with selected fill material as specified in SABS 1200 LB and placed in a stretcher bond pattern around the pipe. The bags shall be firmly packed and hand

stamped into place and shall be keyed a minimum of 500mm into the side wall of the trench. Where specified, the selected fill material shall first be brought to optimum moisture and then stabilized by the addition of 1% cement.

PSD.2.5 EPWP Construction Methods

The generic labour-intensive specification below is the same as sans 1921-5, construction and management requirement for works contracts- part 5: earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

SCOPE

This specification establishes general requirements for activities which are to be executed by hand involving the following:

a. Trenches having a depth of less than 1.5metres
b. Stormwater drainage
c. Low-volume roads & sidewalks

PRECEDENCE

Where this specification is in conflict with any other standard or specification referred to in the scope of works to this contract, the requirements of this specification shall prevail.

HAND EXCAVATEABLE MATERIAL

Hand excavatable material is material:

a. granular materials:

i.whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or

ii.where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b. cohesive materials:

i. whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or

ii. where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.

A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm cone angle of 60 degrees with respect to the horizontal) into the material being used.

Table 1.: Consistency of materials when profiled

GRANULAR MATERIALS		**COHESIVE MATERIALS**	
CONSISTENCY	**DESCRIPTION**	**CONSISTENCY**	**DESCRIPTION**
Very loose	Crumbles very easily when scraped with a geological pick.	Very Soft	Geological pick head can easily be pushed in as the shaft of the handle.
Loose	Small resistance to penetration by sharp end a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end a geological pick.	Firm	Indented by thumb with effort; sharp end of a geological pick can be pushed in upto 10 mm; very difficult to mould with fingers: can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pock: requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil: cannot be moulded by fingers.
Very Dense	High Resistance to repeated blows of a geological pick.	Very Stiff	Indented by thumb-nail with difficulty: slight indentation produced but blow of a geological pick point.

Trench Excavation
All hand excavatable material in trenches having a depth of less than 1.5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)
Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers
a) to 90% Proctor density:
b) Such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more that 10% gravel of size less that 10mm and contains no isolated boulders, or
c) Such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation
All hand excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The Excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand

PSD.3 MEASUREMENT AND PAYMENT

PSD.3.1 Erosion Control Berms ……Unit (m3)

The rate shall include for all costs to source the material, remove any oversized material, load, haul within the freehaul, offload, spread, overfill, compact and trim to the finished dimensions shown on the drawings.

PSD.3.2 Sandbag Protection to Pipe Trench.....…….. Unit (No)

The rate shall include for all costs to supply the 25kg bags, select material, fill bags, place in restricted areas and hand stamp.

PSD.3.3 Extra-Over Sandbag Protection for Stabilisation……..……...Unit (No)

The rates shall include all extra costs to ensure that the material is at optimum and to supply and mix cement at 1%.

PSD.3.4 Extra over sub-item for excavation by hand using hand tool ……..cubic metre (m^3)

Measurement shall be as specified for pay item 22.01 of the standard specifications. The tendered rate shall include full compensation for carrying out the excavation by hand where circumstances prevent the use of mechanical excavators.

PSDB EARTHWORKS (PIPE TRENCHES)

PSDB.1 MATERIALS (3)

PSDB.1.1 CLASSES OF EXCAVATION (3.1)

The classification of excavated materials shall be as specified in Subclause 3.1 of SABS 1200 D and PSD.1.2.

PSDB.1.2 CONTROL OF WATER (4.2)

The Contractor may encounter some seepage water in some of the trench excavation. No separate payment will be made for measures required to deal with this water.

PSDB.2 CONSTRUCTION (5)

PSDB.2.1 MINIMUM BASE WIDTHS (5.2)

The trench width for pipe diameters of 300 mm and less shall be minimum pipe diameter plus 500mm (250 mm side allowance) to allow adequate working space for proper jointing and laying of pipe, but shall not be wider than pipe diameter plus 600 mm

PSDB.2.2 TRENCH BOTTOM (5.5)

Add “When the trench bottom is unsuitable due to waterlogged conditions, at the direction of the Engineer the Contractor shall excavate for and lay a crushed stone mat of minimum thickness 100mm, the stone having a maximum particle size of 13 mm.”

Add “The bottom of excavation for manholes and headwalls in soft ground shall be thoroughly rammed and consolidated at the Contractor’s expense, before any concrete is placed.”

PSDB.2.3 BACKFILLING (5.6)

PSDB.2.3.1 General (5.6.1)

ADD the following to the clause:

No thrust block or pipe requiring special wrapping may be covered by either the fill blanket or the main backfill until inspected and passed by the Engineer.

PSDB.2.3.2 Disposal of unsuitable and make up of deficiency of backfill material (5.6.3 and 5.6.5)

The free-haul distance shall be the entire site of works, for each project.

PSDB.2.3.3 Completion of backfilling (Clause 5.6.6)

Backfilling around the pipe shall not be allowed to fall more than 250m behind the laying of the pipe.

After the pipes have been laid, no backfilling shall be undertaken until the pipes have been inspected and approved by the Engineer.

The Contractor may use his discretion as to whether to backfill around joints before the pipeline is tested and should he decide to backfill the joints he shall be responsible for the locating of any leaks and no extra payment shall be made for any re excavation and subsequent reinstatement.

PSDB.2.4 COMPACTION (5.7)

PSDB.2.4.1 Areas subject to traffic loads (5.7.2)

Areas subject to traffic loads will be instructed by the Engineer in writing. No other areas will be considered for payment. The contractor will be expected to provide test results from an approved laboratory demonstrating that the additional compactive effort has been achieved. No additional payment will be made for these tests.

PSDB.2.5 SHORING (5.11)

In view of the fact that the excavation will take place in open areas, no additional payment will be made for shoring. The measurement width will also remain as specified herein although the Contractor may wish to batter the sides to avoid the need for shoring.

The provision for shoring shall be deemed to be included in the relevant rates for excavation. The Contractor’s attention is drawn to the need to operate safely and to ensure that trenches are either shored or battered to a safe slope.

PSDB.3 MEASUREMENT AND PAYMENT (8)

PSDB.3.1 BASIC PRINCIPLES (8.1)

In addition to the activities listed in 8.1.1, excavation shall also include for the cost of piping and compacting the trench bottom to a minimum of 90% MOD AASHTO density in all materials irrespective of whether the base has been loosened or not during excavation.

PSDB.3.2 Excavation ancillaries (8.3.3)

PSDB.3.2.1 Overhaul (8.3.3.4)

Overhaul distance shall be calculated from the point of loading to the point of placing less the 0,1km free haul, in one direction only, by the shortest practicable route. Only one type of overhaul will be measured.

PSDK GABIONS AND PITCHING
PSDK.1 MATERIALS (3)

PSDK .1.1 Gabion Cages (3.1.2)

The cages for gabion baskets shall comprise mesh type 80 and 2.7mm Class A galvanized wire. The cages for reno mattresses shall comprise mesh type 60 with 2.2mm Class A galvanized wire.

PSDK .1.2 Geotextile (3.1.3)

The geotextile shall comprise grade A2 as indicated in the tables below.

Properties		Units	Standard Grades							Test Methods
			A1	A2	A3	A4	A5	A6	A7	
Thickness	Thickness under 2 kPa	mm	1.3	1.6	1.8	2.1	2.7	3.4	4.4	SABS 0221-88
Permittivity	@ 100mm head	S^{-1}	3	2.9	2.5	2.3	2	1.7	1.1	Cal
Porosity	Under 2 kPa	%	93	93	93	93	93	92	90	GTS
Throughflow	@ 100mm head	$l/s/m^2$	300	285	250	235	200	180	110	SABS 0221-88
Permeability	1.0×10^{-3}	m/s	3.9	4.3	4.5	4.9	5.4	5.9	4.8	
Pore Size	O_{95W}	µm	240	225	205	190	165	145	100	Franzius Institute
	O_{95H}	µm	195	185	170	155	125	100	70	NF,G 38017
Penetration Load	CBR	kN	1.5	1.7	2.1	2.5	3.6	4.5	6.5	SABS 0221-88
	Elongation	%	30-50							

Installation Conditions	Grade of Geotextile				
	A1	A2	A3	A4	A5
Trench < 2.0m dep with smooth sides and rounded drainage stone with moderate compaction	•				
Trench < 2.0m deep with rough sides or sharp drainage stone with moderate compaction		•			
Trench < 2.0m deep with rough sides or sharp drainage stone with high compaction			•		
Trench > 2.0m deep with smooth sides and rounded drainage stone with moderate compaction				•	
Trench > 2.0m deep with rough sides or sharp drainage stone with high compaction					•

PSDK.1.3 Stone (3.2.1)
The stone to be used on this contract shall be as classified as medium in terms of Table 2.

PSDK.2 CONSTRUCTION (5)

PSDK.2.1 Stone Catchwater Berms (New clause 5.3.6)
Where instructed by the Engineer, stone catchwater berms shall be constructed to the dimensions shown on the drawings. The stone shall be classified as medium in terms of Clause 3.2.1 Table 2. The placing of the stones shall be as specified in Clause 5.3.2 with the exception that the last paragraph of Clause 5.3.2 is to be deleted.

PSGA CONCRETE (SMALL WORKS)

PSGA.1 PLANT (4)

PSGA.1.2 Finish (4.4.2)

The finish of all exposed concrete whether internal or external shall be smooth "off the shutter" all other concrete surfaces shall be measured as rough.

PSGA.2 CONSTRUCTION (5)

PSGA.2.1 Fixing (5.1.2)

Welding of reinforcement will not be permitted.

PSGA.2.2 Quality (5.4.1)

All concrete used on this contract shall be strength concrete.

On the drawings strength concrete has been designated by its characteristic strength followed by the size of stone to be used in its manufacture, e.g. 30/20 refers to a concrete of strength 30 MPa at 28 days made with 20mm stone.

PSGA.2.3 Ready mixed concrete (5.4.1.6)

No ready mixed concrete will be allowed in this contract. All concrete required for this project 1s to mixed using Labour Intensive methods (LI).

PSGA.3 TESTS (7)

PSGA.3.1 Frequency of testing (7.1.2)

As the concrete used on this contract will involve small quantities the Engineer will decide when testing is to be done. The Contractor is however required to provide a minimum of 3 moulds and to make the tests.

PSGA.4 MEASUREMENT AND PAYMENT (8)

PSGA.4.1 Concrete (8.1.3.3)

PSGA.4.2 (a) The unit rates for concrete shall include for the cost of testing.

PSHA STRUCTURAL STEELWORK

PSHA.1 CONSTRUCTION (5)

PSHA.1.1 Add the following sub-clause:

5.5.6 Fasteners:

Erection shall include the supply of fasteners.

PSHA.2 MEASURMENT AND PAYMENT (8)

PSHA.1.2 Erection on site (8.3.3)

Add the following:

The unit rate for erection shall cover the cost of fasteners.

PSL MEDIUM PRESSURE PIPELINES

PSL MEDIUM PRESSURE PIPELINES (SANS 1200 L)

PSL 1 Scope

This specification covers the supply galvanised steel pipeline for rising and gravity mains.

PSL 3 Materials

PSL 3.4 Steel Pipes Fittings and Specials

PSL 3.4.2 Steel Pipes of Nominal Bore up to 150mm

AMEND to read: -

Unless otherwise scheduled, hot dipped galvanized steel pipes and fittings of nominal bore up to 250mm shall be of heavy duty, cut grooved with flexible galvanized cast couplings and shall comply with the applicable requirements of SANS 62. Cast couplings to be rated for 40bar with NBR gaskets, HDG grade 8.8 nuts and bolts.

PSL 3.4.3 Steel Pipes of Nominal Bore greater than 150mm

Unless otherwise scheduled, steel pipes and fittings of nominal bore over 250mm shall be manufactured to conform to SABS 719/1971 from grade 300WA steel and shall have a minimum wall thickness of 4.5mm.

PSL 3.4.4 Fittings and Specials

Add the following:

PSL.1.1.2 Steel specials shall be fabricated from straight steel pipe as specified in PSL.1.1.1 and and shall be manufactured and tested in accordance with BS 534 – Clause 4.

Where specified on the drawings or schedule of quantities, ANSI B16 curvature bends, tees and reducers shall be used.

PSL 3.7 Other Types of Pipes

PSL 3.7.1 Galvanised Restrained Steel Pipe System

Restrained steel pipes for use in 100mm and 65mm dia. bulk mains shall be galvanised 3.9mm and 3.0mm roll grooved TOSA wrap (or similar approved wrapping system) Pipe c/w cast SP coupling & petrolatum shrink sleeve joint protection respectively (as scheduled). (The piping system shall be groove-ended restrained system in accordance with SANS 815-2 as amended), Jointing of steel pipes shall be by means of Klambon RYC series SP coupling as scheduled.

The restrained piping system shall have groove ended pipe with couplings and fittings that shall comply with SANS 815-2; as amended

All pipes shall be supplied in 6m lengths with the length tolerance as per SANS 815-2-as amended

All pipes shall be galvanised in both inside and outside in accordance with SANS EN 10240.

All couplings shall be cast steel or cast iron.

All bolts, fittings and couplings shall be galvanised in accordance SANS 1461

All pipes shall be coated as indicated below;

Coating System

The coating shall be bitumen/polyolefin sleeve duplex coating, TOSA WRAP ®, or similar approved.

Approval of Batches

All raw materials as compounded in the manufacturers Quality Assurance Manual. A compliance certificate must be provided by each raw material supplier.

Bitumen/Polyolefin Sleeve Duplex Coating

Preparation and Cleaning of Pipe

Degreasing

Pipes shall be degreased by passing a gas flame over the surface to cabornise any contaminants.

Pipe Cleaning

Pipes shall be mechanically wire brushed to Grade St.2 of ISO 8501-1 and all rust and foreign matter removed by means of blowing with compressed air, or solvent wiping.

Application of Coating

I) Outer Layer

Once the sleeve is positioned over the full length of the pipe, the heat shrinking of the sleeve is commenced one end to eliminate the risk of air entrapment. The sleeve edge is trimmed from each side of the pipe before it is transferred to the pipe inspection table.

II) Thickness of Coating

The pipe shall be coated to a minimum thickness of 2.0mm.

III) Method of Repairs

The area of single repair shall not exceed 10mm2 The repair shall be carried out using a compatible melt stick. The number of repairs shall not exceed 3 per metre length of pipe.

IV) Performance Testing

The coating system shall comply with the following requirements:

PROPERTY	REQIREMENT	TEST METHOD	FREQUENCY
Water Absorption of Sleeve	<= 0.1% when immersed in water at 23^0 C for 100 days	SANS 1117	Per Project
Cathodic disbondment of Duplex system	Disbondment length <= 15mm after 28 days	SANS 1117	Per Project

Tensile strength of sleeve at yield	>= 10 MPa	ASMT 882	Per Project
Tensile strength of sleeve at break	>= 20 MPa	ASMT 882	Per Project
Elongation of sleeve at break	>= 500%	ASMT 882	Per Project
Adhesion to Steel of duplex system	> 2 N/mm	SANS 1117	Per Project
Density of sleeve	> 915 kg/m^3	ASMT D1505	Per Project
Visual	Free from visible defect	Observation	100%
Coating thickness	2.0mm	6 readings / pipe	100%
Holiday test	Nil defect @ 15 kV	SANS 10129	100%
Bond strength	> 1.5 N/mm width of strip	In house	1 per 100

PSL 3.8 Jointing Materials

Add the following:

All jointing materials such as nuts, bolts and gaskets etc. Are to be included in the respective rates for pipes and specials.

PSL 3.8.3 Fanges and Accessories

Add the following:

“All flanges shall be drilled in accordance with SABS 1123. Flanges shall be drilled to Table 16 as a minimum and shall be drilled to match the pressure rating of the adjacent fitting or pipe for pipes and fittings rated greater than 16 bar”

All buried flanges to be denso wrapped in accordance with SABS 1211, AS/NZC 4020 : 1999

PSL 3.8.4 Loose Flanges

Add the following:

“Nuts and Bolts and other fasteners shall be galvanised (SANS EN 121) hexagon head type and comply with the requirements of SABS 135 – 1971 with threads of the coarse pitch series”

PSL.4 VALVES (3.10)

PSL.4.1 General

Lifting lugs are to be fitted to all valves that have a mass in excess of 100kg, to be hot dip galvanized to SANS 1461.

PSL.4.2 Resilient seal gate valves

Resilient seal gate valves (RSV) shall comply with SABS 664 (latest amendment) with classes and flange drillings as detailed or scheduled elsewhere.

The typical application for resilient seal valves is for valves in “normally open” locations (eg air valves, isolating valves, in-line valves <250NB where the maximum differential pressure across the valve is not likely to exceed 16 Bar under normal operating conditions. Resilient seal valves shall not be used in terminal positions (eg as scour valves) without the approval of the Engineer.

In addition they shall comply with the following:

a) General

Gate valves shall be double flanged and be resilient seated and shall be on the non-rising spindle type.

The valves shall be capable of sealing drip tight bi-directionally over the full range of pressures from zero to maximum working pressure.

b) Gate Design

The gate shall be fully rubber encapsulated inside and out to ensure drip tight sealing and to avoid corrosion and shall be provided with a 10 year replacement warrantee. The gate shall further have a drain hole, preventing stagnant water or impurities from collecting.

Rubber utilized in the coating of the wedge shall be inert and shall not impart odour, taste and colour and shall be suitable for drinking water applications. The gate nut shall not be fixed to the wedge, thereby reducing opening torques.

c) Gate and Body Design

The gate shall have optimally placed guides of wear resistant plastic so as to reduce the torques as well as to reduce wear between the rubber and the coating on the body. The bore of the body shall be straight through design in order to allow cleaning with a badger.

d) Valve Bonnet

The valve shall utilize 3 independent bonnet seals which shall include a set of stem steels embedded in non-corrosive material, a back seal to prevent leakage when changing seals and a wiper ring to protect against debris entering the valve.

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

e) Spindle

Spindles shall be made of stainless steel. The stem threads shall be rolled to maintain steel structure and increase strength and to ensure smooth thread edges and consequently a low operating torque. The spindle seat shall consist of 2 nitrile rubber O rings located in a corrosion resistant housing. A wiper ring shall also be provided.

f) Body and Assembly

The rubber bonnet gasket shall fit in the recess in the valve bonnet preventing blow out of the seal under surge conditions. The bonnet bolts shall pass through the gasket and be sunk into the bonnet and be sealed for corrosion protection.

An edge protecting ring shall permanently be fitted around the body of the bonnet joint in order to protect the coating during transportation and installation. The body of the valve shall be fusion bonded epoxy coated to a minimum D.F.T. of 250 microns.

Unless otherwise specified caps for key operation will be required for buried valves and hand wheels on valves situated in accessible chambers. Extension spindles and brackets shall be provided where detailed and hand wheels shall be clearly marked with the direction of opening.

All valves shall be clockwise closing when viewed from above.

PSL.4.3 Wedge gate valves

Gate valves shall comply with the requirements of SABS 664 (latest amendment) with classes and ends as elsewhere specified.

The typical application for wedge gate seal valves is for valves in “normally closed” locations (eg scour valves) and for valves in the normally open position (eg in-line valves <250NB) where the maximum differential pressure across the valve is likely to exceed 16 Bar under normal operating conditions.

Channel-guides and shoes shall be fitted to valves falling within the following pressure and size ranges:

PRESSURE	**VALVE SIZE**
Class 10	600mm and above
Class 16	350mm and above
Class 25	350mm and above
Class 40	All sizes
Class 100	All sizes

The spindles shall be of the non-rising type and shall be manufactured of solid stainless steel.

All valves shall be clockwise closing when viewed from above.

Gearing shall be chosen to limit the total effort at the hand wheel or valve key to 400 Newtons.

The valves shall be capable of being easily operated by one man against the maximum unbalanced pressure and the total effort required to operate the valve shall not exceed 400 Newtons (i.e. A simultaneous push-pull of 200 Newtons each) on the ends of tee key 900 mm long resulting in a maximum torque of 180Nm.

In order to comply with the above requirements it has been found that the following are normally necessary for larger sizes of valves:

a. Class 16 (PN 16) valves in sizes 80mm, 150mm and 300mm should be fitted with ball thrust collars; and
b. Class 25 (PN25) valves in size 80mm, 150mm should be fitted with either ball thrust collars or spur gears, while 250mm and 300mm sizes should be fitted with ball thrust collars and 3 to 1 gears.

c. Class 40 (PN40) valves in sizes 80mm, 150, 200mm should be fitted with either ball thrust collars or spur gears, while 250mm and 300mm sizes should be fitted with ball thrust collars and 3 to 1 gears.

While other forms of anti-friction devices may be acceptable it is the Contractor's responsibility to ensure that the required torque is not exceeded.

Unless otherwise specified buried valves shall be provided with caps for key operation and valves in chambers with hand wheels.

The valves shall be provided with Type B (Gunmetal) trim with pinned seat rings. The gate shall be full length. The body of the valve shall be epoxy coated to a minimum D.F.T. of 250 microns inside and out.

The gland packing shall be of the "Maxmech Style M57", "Chesterton 1724" or similar approved.

The valves are to be drop tight at working pressure.

Each valve so supplied shall be provided with a pressure test certificate.

PSL.4.4 Butterfly valves

These shall be solid body cast iron type for bolting to flanges and shall be of perfect closure. The valves shall be fitted with gearbox operated hand wheels or ratchet locating hand-levers, stainless steel shafts and discs and natural rubber or neoprene seals and shaft seals.

The valves shall conform to the requirements of BS 5155:1984. The class of valve shall be as specified. Specifications and test certificates shall be provided.

PSL.4.5 Air release valves

All valves to be pressure rated to 1600 KPa.

Air valves shall be the double purpose air release / vacuum break type.

The air release and vacuum break valve shall be of a compact single chamber design with solid cylindrical High Density Polyethylene control floats housed in a tubular stainless steel or corrosion protected body with epoxy powder coated cast iron, or s/steel ends secured by means of stainless steel tie rods.

Ball type air valves are not acceptable.

The valve shall have an integral surge alleviation mechanism which shall operate automatically to limit transient pressure rise or shock induced by closure due to high velocity air discharge or the subsequent rejoining of separated water columns. The limitation of pressure rise must be achieved by deceleration of approaching water prior to valve closure. Relief mechanisms that act subsequent to valve closure cannot reach in the low millisecond time span required and are therefore unacceptable.

Large orifice sealing shall be effected by the flat face of the control float seating against a nitrile rubber 'O' Ring housed in a dovetail groove circumferentially surrounding the large orifice. Discharge of pressurised air shall be controlled by the seating and unseating of a small orifice on a natural rubber seal affixed to the control float.

The intake/discharge orifice area shall be equal to the nominal size of the valve i.e.; a 150mm (6") valve shall have a 150mm (6") intake/discharge orifice.

The valve construction shall be proportioned with regard to material strength characteristics, so that deformation, leaking or damage of any kind does not occur by submission to twice the designed working pressure.

The valve design shall incorporate an over pressure safety feature that will fail without an explosive effect, such as is normally the case when highly compressed air is released suddenly. This feature shall consist of easily replaceable components such as gaskets, seals or the like.

All air valves shall be supplied with a copy of the relevant factory test certificates that reflects the test pressure and valve serial number. Original factory test certificates for each valve shall be issued on completion of delivery of the valve consignment.

Each air valve shall have a plate made of corrosion – resistance material securely fixed to the body, on which the following information shall be stamped or engraved:

- The Manufacturer's Name;
- Size of valve. e.g. : DN 100;
- Class of valve e.g.: PN 16;
- The valve serial number, which must tie up with the relevant test certificate.

End connections shall comply with SABS 1123 T1600/3 or T2500/3 as applicable and all valves will be supplied with matching flanges, gaskets and stainless steel fasteners.

PSL.4.6 Control valves

Control valves shall comprise a centre guided diaphragm actuated globe valve of either oblique (Y) or angle pattern design. The body and cover shall be SG iron with bronze seat. The internal and external surfaces of the valve body shall be fusion bonded epoxy coated. End connections shall comply with the drilling pattern indicated on the drawings. The body shall have a replaceable non-threaded seat ring that is held in place by a set of screws, which tighten into a body groove. This seat should be accessible and serviceable without removing the valve from the pipeline. The seat area shall have a flow opening with no stem guides, bearings or supporting ribs.

The actuator assembly shall be of the double chamber design with a separating partition between the lower surface of the diaphragm and the main valve. The entire actuator assembly consisting of the seal disk, valve shaft, bearing, diaphragm assembly, separating partition and top cover must be removable from the valve as a single unit.

The actuator assembly must be capable of accepting a V-port throttling plug by simply bolting the device to the seal disk.

The main valve, solenoid pilot, limit switch, check valve, control tubing, filter and isolation valves shall be factory assembled and tested. The valve manufacturer must be completely certified in accordance with the ISO 9002 Quality Assurance Standard.

The settings and operation of the valves shall be as described herein or alternatively as indicated on the drawings.

Prior to any valve being ordered or delivered to site, the Contractor shall deliver to the Engineer a sample of a typical control valve that he proposes to use and which complies with this specification. The Engineer will then investigate whether the valve is compliant with the specification before authorizing the use of such valve. If the valve does not comply with the specification in all respects, the Engineer may reject such valve in which case the Contractor will have to source valves of the required quality and all costs associated therewith will be for the Contractor's account.

The sample shall be accompanied by the following control sheet:

Item	

Name of valve supply company:	
Overview of company with particular emphasis on service capabilities, calibration facilities and their track record in South Africa:	(*To be attached*)
Valve specification sheets (detailing compliance with this specification):	(*To be attached*)
Test certificate:	(*To be attached*)

PSL.4.7 Water meters

a. Bulk Meters (NB 40mm up to NB 300mm)

Water meters tendered for under this category must be of the in-line through-flow Woltman type, mechanical turbine flanged bulk water meters and must conform to the following dimensions and specifications:

Nominal Bore	Body Lengths	Flange Specs	Working Pressure Maximum	Temp Maximum
40mm	200mm	BS4504 Table 16	1600kPa	50°C
50mm	220mm	BS4504 Table 16	1600kPa	50°C
80mm	225mm	BS4504 Table 16	1600kPa	50°C
100mm	250mm	BS4504 Table 16	1600kPa	50°C
150mm	300mm	BS4504 Table 16	1600kPa	50°C
200mm	350mm	BS4504 Table 16	1600kPa	50°C
250mm	450mm	BS4504 Table 16	1600kPa	50°C
300mm	500mm	BS4504 Table 16	1600kPa	50°C

All Woltman type mechanical meters supplied in terms of this contract shall perform to an accuracy of better than ±2% error over the meter's operating range, i.e. between Qt and Qp (Qn). The performance characteristics of the meters offered must be equal to or better than the values listed below:

Size DN	Q_{start} m³/h	Q_{min} m³/h	Q_t m³/h	Q_n (Q_p) m³/h	Q_{max} (Q_s) m³/h
40mm	0,15	0,3	0,8	40	60
50mm	0,15	0,3	0,7	50	90
80mm	0,25	0,5	0,8	120	200
100mm	0,25	0,8	1,8	230	300
150mm	1,0	1,8	4	450	600
200mm	1,5	4	6	800	1200
250mm	3,0	6	11	1250	1600
300mm	8,0	12	15	1400	2000

- Meters must be fitted with robust glass/copper dry dial registers, which comprise 6 digit cyclometer-type totalisers, registering in kiloliters (kl) or m³. These registers must be sealed to IP68 to prevent ingress of dirt or moisture, and must function under water, in the event of manholes flooding. The registers, which are to be fitted as standard, must be able to provide one high frequency opto-type pulse output function and two low frequency reed-type pulse output functions. Only meters which allow for very easy fitment and removal of the reed- and opto-type pulsers, normally associated with data logging, without having to break the verification seals, will be acceptable;
- No consideration will be given to meter types, which necessitate the use of special tools or fitment of any form of gland in the process of connecting pulser units, or, meters which require a register-change to switch from one volume unit per pulse to another;
- Meters must preferably offer an upgrade path to AMR (Automatic meter reading), which facilitates the fitment of "intelligent" registers at a later stage. The Contractor is to provide

full details of the meter capability in this regard and furnish examples of systems already operating successfully in South Africa;

- Meters must be data logger compatible with loggers which have a proven track record and have a purpose-written software, to be used in conjunction with their bulk water meters, for network management;
- Cover bolts must be of stainless steel material to facilitate easy removal of mechanisms. Meter bodies must be coated with a high quality sintered epoxy powder coating, both internally and externally, with a minimum coating thickness of between 200 and 300 microns;
- Although most of the meters will be installed horizontally, it must be possible to install the meters vertically (with flow in the upward direction) or in an inclined position (with flow in the upward direction), should site conditions make this necessary;
- The performance of the meters offered shall not be affected by outside magnetic influences;
- A place must be provided for on the meter body, which can be drilled and tapped, for connecting a pressure transducer, for data logging, should the need arise; and
- Ability for meter mechanisms to be exchanged – or to fit new, calibrated mechanisms into used or existing meter bodies, without loss of measuring accuracy to be substantiated. This is of particular importance to facilitate cost effective ease of maintenance to the meters in the future, without the need to remove meter bodies from the pipeline.

Prior to any meter being ordered or delivered to site, the Contractor shall deliver to the Engineer a sample of a typical bulk meter that he proposes to use and which complies with this specification. The Engineer will then investigate whether the meter is compliant with the specification before authorizing the use of such meters. If the meter does not comply with the specification in all respects, the Engineer may reject such meter in which case the Contractor will have to source meters of the required quality and all costs associated therewith will be for the Contractor's account.

The sample shall be accompanied by the following control sheet:

Item	
Name of official local meter distribution company:	
Overview of company with particular emphasis on service capabilities, calibration facilities and their track record in South Africa:	(*To be attached*)
Meter specification sheets (including head loss across meter, minimum upstream/downstream straight pipe lengths and compliance with this specification):	(*To be attached*)
Test certificate:	(*To be attached*)

b. Domestic (Plastic bodied, wet dial water meters)

Water Meters used in this application must comply with the South African Bureau of Standards Specification No. 1529-1:1994 and must be approved in terms of Section 18 of the Trade Metrology Act No. 77 of 1973 and Regulation 80 of Part II of the Trade Metrology Regulations.

All meters must be tested and sealed by an authorised official in a SANAS, (SANS 0259) accredited laboratory, situated within the borders of the Republic of South Africa. The seal must include the Trade Metrology Authorisation number and copies of the test certificate must be made available free of charge on request by the Engineer.

Meters tendered for under this category must be the plastic bodied, wet dial, domestic water meters, and must conform to the following dimensions and specifications:

METER SIZE	**15mm**	**20mm**	**25mm**

Maximum Flow rate qs ± 2% (m³/h)	3	5	7
Permanent Flow rate qp ± 2% (m³/h)	1,5	2,5	3,5
Transitional Flow rate qt ± 2% (l/h)	22,5	37,5	52,5
Minimum Flow rate q min ± 5% (l/h)	15	25	35
Starting Flow (l/h)	5,7	5,7	10
Maximum Working Pressure (kPa)	1600	1600	1600
Body Length (mm)	165	165	198
Alternate Body Length (mm)	114	-	-
Pulse Output (l)	0.5	0.5	5.0

- Counter must be of a wet dial type to prevent condensation under the lens;
- Counter window of minimum 7mm thickness that cannot be penetrated, by means of a needle or similar sharp instrument in order to stop the counter from operating, without destroying the unit and allowing an uncontrollable discharge of water;
- The meter must be approved by Trade and Metrology for vertical and horizontal installation;
- The meter must be suitable for rhythmic pulsating flows with a pulse output;
- The meter must be suitable for use with water temperatures up to 50°C and a maximum working pressure of 1 600 kPa;
- The maximum rate of flow (Qs) must be achieved at a pressure drop not in excess of 100 kPa across the inlet/outlet of the meter;
- All internal plastic components to be constructed of virgin materials and may not contain any materials of scrap value;
- Each meter must be backed with a 3 year guarantee against faulty workmanship and/or materials;
- The meter supplier and/or manufacturer must have an SANS 0259 accredited laboratory and each meter unit is to be tested and sealed by an authorised official;
- Meters are to comply with a Class “C” accuracy determination;
- Meters shall have built-in non-return valves to prevent reverse flow;
- The serial number of the meter cartridge must be clearly visible from the position that the meters are normally read;
- Meters offered shall not be affected by outside magnetic influences; and
- The local meter distribution company supplying the meters to the Contractor must have a proven track record for the supply of plastic bodied, domestic meters.

Prior to any meter being ordered or delivered to site, the Contractor shall deliver to the Engineer a sample of a typical meter that he proposes to use and which complies with this specification. The Engineer will then investigate whether the meter is compliant with the specification before authorizing the use of such meters. If the meter does not comply with the specification in all respects, the Engineer may reject such meter in which case the Contractor will have to source meters of the required quality and all costs associated therewith will be for the Contractor’s account.

The sample shall be accompanied by the following control sheet:

Item	
Name of the official, local. meter distribution company:	
Overview of company with particular emphasis on service capabilities, calibration facilities and their track record in South Africa:	(*To be attached*)
Meter specification sheets (including head loss across meter, minimum upstream/downstream straight pipe lengths and compliance with this specification):	(*To be attached*)
Test certificate:	(*To be attached*)

In spite of the requirements of SANS1529-1:2003, the Contractor must be prepared to perform the following tests in the presence of the engineer, if so required by him:

- Witness testing of a random sample of 5 meters in the test laboratory of the local meter distribution company, on the test rig normally used for the testing and calibration of these meters. Special attention will be given by the engineer to the actual performances of the meters offered, rather than the minimum performance as laid down by SANS1529-1:2003 for Class B specifications; and
- All costs associated with the above tests will be borne by the Contractor. The Employer will carry traveling costs to and from the laboratory of the official local meter distributor.

PSL.4.8 Flow control device

The device shall comply with the following:

- The device must be IP68 rated;
- The device must be capable of being interrogated, tested and re-programmed in the field using an appropriate electronic device which can be linked to a desktop and data downloaded to “Excel” for analysis;
- The device must be capable of delivering a minimum flow rate of 10 l/min;
- The device must have a minimum battery life in excess of 5 years;
- The device must be capable of delivering a preset volume of water (daily, monthly or as required) at full pressure;
- Daily and monthly allocation must be adjustable in field to higher/lower amounts without the need to replace any parts
- The maximum daily amount must be guaranteed (therefore must not be dependant on pressure fluctuations in the network);
- The device must be capable of withstanding a pressure of up to 10 bar;
- The device must be capable of logging the hourly consumption – over a minimum
- 3 month period;
- The device must have a built in safety function which shuts off the flow in the event of the reed switch cable being tampered with or cut; and
- The device must have an option to carry-over the unused daily allocation within a month;
- The device must have security seals which prevent the uncoupling of the sensor cable from the meter pulse output;
- The device must be constructed from materials which have a very limited or no scrap value;
- The device must be able to be installed underground and to be mounted either horizontally or vertically; and
- The device must allow full bore flow (full pressure, no trickle flow)
- The flow limiter units must also be capable of being supplied with a field service terminal and communication cable/probe with the following features:
- Small, robust, hand held device with high quality screen and superior battery performance;
- Associated software with various operator levels to manage field usage with confidence and have security restrictions for adjusting of flow limiter settings;
- Adjustable security settings for various operator levels;
- Ability to configure flow limiters to administrator predefined usage settings;

- Ability to configure flow limiter in-field to variable settings;
- Ability to read and store flow limiter summary and detail data and download to database;
- Allow manual meter reading recordings; and
- Run flow limiter test functions

PSL.4.9 Coatings and resistance to corrosion

All new valves are to be epoxy coated internally and out. Coating may be either by an approved solvent based epoxy system or an approved fusion bonded epoxy system as specified below:

Contractors will be required to submit details of their proposed suppliers, coating specification and the coating system to be applied, to the Engineer for approval, before ordering the valves.

a) Solvent Based Epoxy Coating System

The epoxy shall be of the type Carboline 891; Plascogard KSIR 88; Sigmaguard EHB; AEBECOTE 330 or similar approved.

The dry film thickness (D.F.T) shall be as follows:

- Coating : 350 microns ± 50 microns; and
- Lining : 250 microns ± 50 microns

The applied coating and lining shall comply with the requirements of Table 2.

TABLE 2 : Lining Requirements

No	Property	Requirements	Test Method	Frequency
1	Visual	The lining shall be smooth, free from excessive runs, sags, orange peel, occlusion or other visible defects.	Use an experienced observer.	Each Valve
2	Coating Thickness	Minimum : 200 microns Maximum : 500 microns	SABS Method 141	Minimum 6 readings/ Valve per batch
3	Electrical Insulation Defects	Nil defects when tested at 90 Volts 2 Megaohms	SABS Method 1217 – Section 8:12	One Valve per batch
4	Degree of Cure	No softening or discolouration	20 double rubs with cotton wool swab soaked in MEK	One valve per batch
5	Adhesion	Destructive testing not recommended		

b) Fusion Bonded Epoxy Powder Coating System

The Epoxy coating shall be a fusion bonded epoxy powder coating of the type Interpon PCL 331, Vedoc V VPC 2001 or similar approved.

TABLE 3 : Lining Requirements

No	Property	Requirements	Test Method	Frequency
1	Visual	Smooth glossy or semi glossy finish, free from excessive runs, sags, orange peel, occlusion or other visible defects	Use an experienced observer	Each Valve
2	Coating Thickness	Min. 200 max. 500 microns	SABS Method 141	Minimum 6 readings/ valve
3	Electrical Insulation Defects	Nil defects at 3500 Volts. For conditions for repair see Clause 3.3	SABS 1217 section 8.12.2	One Valve per batch
4	Impact Resistance	No defects at 2 joules	SABS 1217 section	Random 5% of

			8.7	Valves
5	Degree of cure : Dynamic Test	No softening or discolouration	20 double rubs with cotton wool swab soaked in MEK	One Valve per batch

The cured fusion bonded epoxy powder coating shall meet the requirements specified in Table 3 above.

Where extended spindles are used these shall be galvanised.

PSL.5 MANHOLES AND SURFACE BOXES (3.11)

PSL.5.1 Manhole covers and frames (Clause 3.11.5)

Steel covers and frames and locking bars shall be as detailed on the drawings and shall be hot dip galvanized after manufacture to SANS 121 :2000/ISO 1461 : 2000.
The Contractor shall submit certificates certifying that all galvanized covers and frames have been manufactured in a certified facility and meet the specifications noted above. Retention will not be released until such certificates are delivered to the Engineer.

PSL.5.2 Surface Boxes (3.11.6)

a. Domestic meter box

The meter box shall be of an approved plastic mould design which is robust, tamper proof, has a base plate and is lockable and complies with the following:

- The locking device is to be robust and the key is to be capable of accommodating the opening torsion without twisting;
- Meterbox fittings are to be keyed into ends of box to prevent rotation on installation;
- Base plate to have drainage ports to allow water to drain;
- The box must allow fitment of meters of 115mm in length when combined with the approved flow control device. Where specified in the Bill of Quantities, boxes are also to be able to accommodate an isolating stop cock;
- The box must afford quick and easy access to perform restrictions and de-restrictions;
- Inlet and outlet fittings should be ¾" brass female connectors; and
- The lid of the box should be of high impact injection moulded plastic and must be UV stabilized.

Prior to any meter being ordered or delivered to site, the Contractor shall deliver to the Engineer a sample of a typical meter that he proposes to use and which complies with this specification. The Engineer will then investigate whether the meter is compliant with the specification before authorizing the use of such meters. If the meter does not comply with the specification in all respects, the Engineer may reject such meter in which case the Contractor will have to source meters of the required quality and all costs associated therewith will be for the Contractor's account.

1 key must be supplied together with every 25 boxes supplied and this must be provided for in the rate for the supply of the box.

PSL.6 CONSTRUCTION (5)

PSL.6.1 LAYING (5.1)

Pipe-laying personnel

The laying of pipes and ancillary fittings shall be performed only by a qualified person who is registered as an artisan in the plumbing, pipe fitting, or drain laying trade or who is qualified by reason of having attended and passed the course on pipe laying of the Civil Engineering Industry Training Board. The Contractor will be expected to provide proof of this requirement.

PSL.6.2 Pipe laid to radii (5.1.4.2)

ADD the following: -
Where rigid pipes have been indicated as being laid to radii the maximum deflection angle at any flexible coupling may be no more than 50% of that permissible deflection as specified by the manufacturer for that diameter and class coupling.

Where uPVC pipes have been indicated as being laid with radii to accommodate changes in grade or horizontal alignment these radii must be taken up over a minimum of 3 pipe lengths for deflection angles less than 9□ and one extra pipe length per 3□ thereafter.

PSL.6.3 JOINTING METHODS (5.2)

ADD the following: -

PSL.6.3.1 Flexible couplings

At all positions where steel pipes or specials are cast into a concrete structure in an underground position the first joint outside the structure and a joint 1m from the structure shall be made by using a Viking-Johnson or similar approved flexible coupling unless otherwise specified.

At flexible couplings the pipe ends shall be at least 10mm apart to accommodate any pipe expansion.

In all isolating, reflux and scour valve chambers at least one pipe/valve connection shall be made by means of a Viking-Johnson or similar approved flexible flange adapter coupling to facilitate the removal of the valve from the line. The coupling shall be an equivalent class to the valve or higher.

PSL.6.4 THRUST BLOCKS (5.5)

PSL.6.4.1 Thrust block size

Thrust blocks will be required at all changes of direction, reducers, end caps, tees and where otherwise directed by the Engineer.
The Contractor may not backfill any thrust block until it has been approved by the Engineer in writing. If there is any doubts regarding the suitability of the insitu materials at any location, the Contractor shall obtain a ruling from the Engineer prior to casting the thrust blocks.
The rate for blocks includes for all costs to shutter the blocks so that a neat product is produced. Sandbags and other means of shuttering will not be permitted.

PSL.6.5 DISINFECTION OF POTABLE WATER PIPELINES (Clause 5.10)

The disinfecting of the potable water pipeline shall be as follows:

(a) The pipeline shall be flushed out with clean water until all sediment and other foreign matter has been removed.

(b) The pipeline shall then be refilled with potable water containing 10 mg/litre calcium hypo chloride. Further hypo chloride shall be put into the pipeline at air valve

installations to ensure an even distribution throughout the pipeline should this be necessary.

The pipeline should be allowed to stand for 24 hours and samples then taken from suitable scour points. These should contain a chlorine residual of at least 1 mg/litre. Should this not be attained further doses of calcium hypochloride shall be added to the water.

PSL.6.6 MARKERS (No reference)

The Contractor shall supply and place in position concrete markers to indicate the position of all sluice valves, air valves and hydrants. These shall be set opposite the fittings whose positions they are to indicate.

The whole marker shall be painted yellow with two coats of approved yellow road marking paint and the letters “W” above and “V", "AV" or "SV" or “IV” below as appropriate painted in black enamel. The contractor is to submit a sample for approval prior to mass producing the markers.

In addition to the above pipe route markers will also be positioned along supply routes at positions instructed by the Engineer. The marker shall generally be placed 1.5m from the pipe centre line on the LHS as seen in the direction of flow.

PSL.7 TESTING (7)

PSL.7.1 Standard hydraulic pipe test (7.3.1.2)

REPLACE with the following: -

Subject to the provisions of 7.3.1.3 and 7.3.1.4 the test pressure for field-testing shall be 1,25 times the maximum working pressure for the class of pipe specified.

PSL.8 MEASUREMENT AND PAYMENT (8)

PSL.8.1 Supply, Lay and Bed Pipes Complete with Couplings (8.2.1)

ADD the following: -

The rate for laying shall be deemed to include for connecting pipes to existing pipes where necessary.

The rate for testing of pipelines and appurtenances shall be deemed to include for the supply and loan of temporary valves, end caps, blank flanges, isolating-type devices, buffer beams or anything else the Contractor considers necessary to complete a successful test.

PSL.8.2 Special wrapping in corrosive soils (8.2.15)

The rate for wrapping of steel pipes and specials as set out in PSL.3.4 shall be deemed to include for the packing with bitumen based mastic and external encasing protection of joints and couplings as well as the outer protective wrap.

PSL.8.3 Lay and Bed Pipes Complete with Couplings (8.2.16)

ADD the following: -

The rate shall include the cost for checking all pipes at the stockpile, loading, transporting to construction site and off loading.

The rate for laying shall be deemed to include for connecting pipes to existing pipes where necessary.

The rate for testing of pipelines and appurtenances shall be deemed to include for the supply and loan of temporary valves, end caps, blank flanges, isolating-type devices, buffer beams or anything else the Contractor considers necessary to complete a successful test.

PSLB BEDDING (PIPES)

PSLB.1 INTERPRETATIONS (2)

PSLB.1.1 DEFINITIONS (2.3)

Add the following new definition:

PSLB.1.1.1 Stone mat

Material that complies with the requirements of PSLB.2.3

PSLB.2 MATERIALS (3)

PSLB.2.1 SELECTED GRANULAR BEDDING (3.1)

Add the following new subclause:

PSLB.2.1.1 STONE MAT (3.1.1)

Stone mat shall be 13,2mm nominal size stone for concrete complying with the requirements of SABS 1083 (Category 2).

PSLB.2.2 BEDDING (3.3)

PSLB.2.2.1 GRANULAR BEDDING (3.3.1)

Add the following to the clause:

“All granular material must come from suitable borrow pits. Material from borrow pits must be tested, and results supplied to the engineer for approval prior to use.

The rate for granular material sourced from borrow pits shall include for all work to select, remove oversize and/or unsuitable material by sieving etc.”

PSLB.2.2.2 PLACING OF BEDDING (3.5)

Add the following new clause:

“All bedding from commercial/borrow shall be hauled and placed along the trench at intervals not closer than 100m. The bedding material shall then be hauled with wheel barrow from the stockpile to the trench by Labour intensive methods (LI).”

PSLB.3 CONSTRUCTION (5)

PSLB.3.1 Details of Bedding (5.1.2)

Delete clause 5.1.2a and 5.1.2b and substitute:

“Pipes should be bedded and protected in accordance with the details shown on the relevant drawing”.

PSLB.4 TOLERANCES (6)

PSLB.4.1 MOISTURE CONTENT AND PAYMENT (6.1)

Add the following to the clause:

"Permissible deviations of moisture content and density shall conform to Class II degree of accuracy."

PSLB.5 MEASUREMENT AND PAYMENT (8)

PSLB.5.1 Disposal of displaced material (8.1.5)

Amend to read:

"Material displaced by importation of material in terms of 8.1.2 shall be spread leveled and shaped to conform with the natural contours adjacent the trench. Overhaul will be paid on such material. In all cases the thickness of the material once spread shall not exceed 100mm".

C3.3 PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

PAM: OHSA 1993: HEALTH AND SAFETY SPECIFICATION

PB ENVIRONMENTAL MANAGEMENT SPECIFICATION

PD EPWP REQUIREMENTS

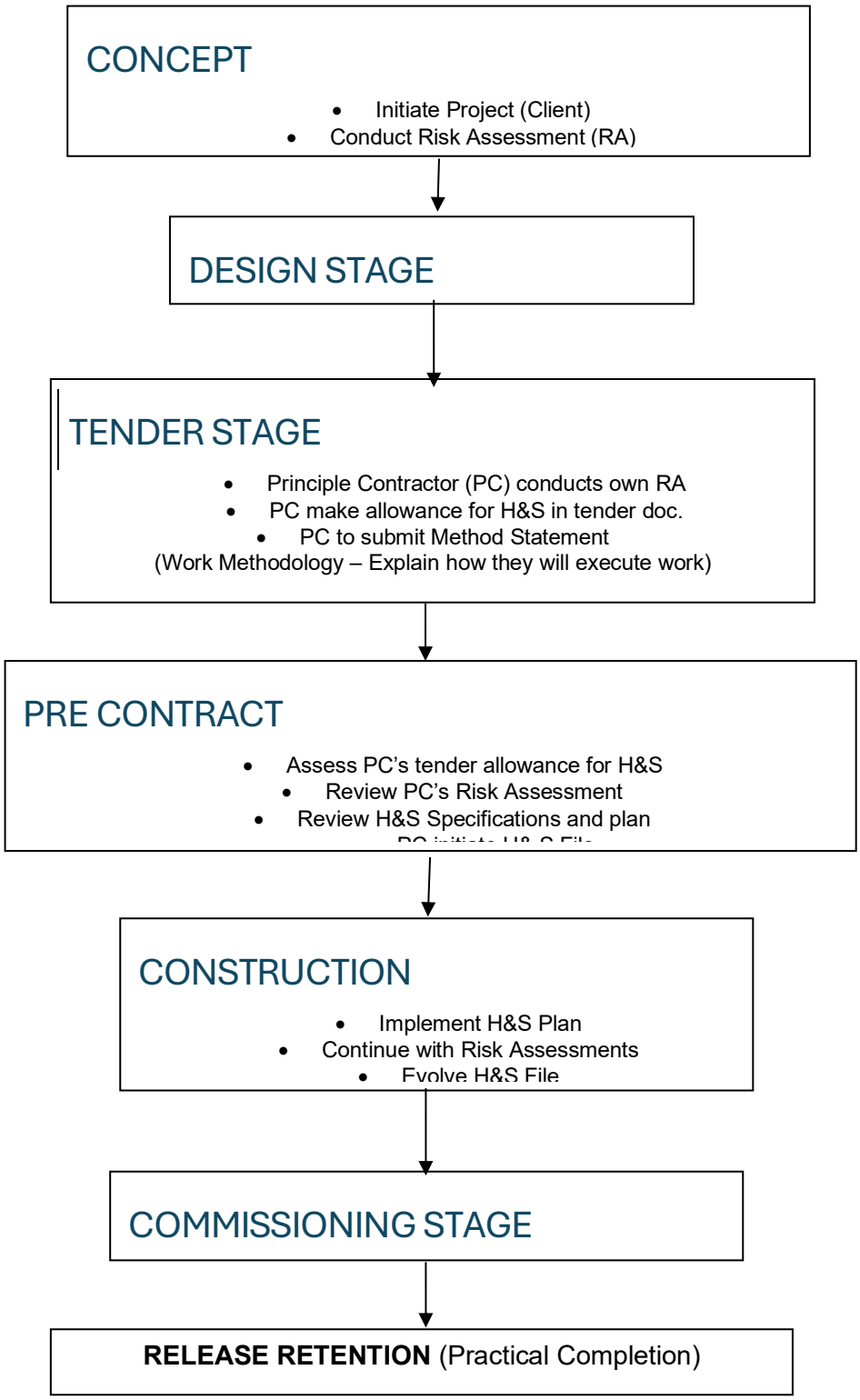
PARTICULAR SPECIFICATION PAM: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

CONTENTS

PAM: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

CONSTRUCTION HEALTH AND SAFETY PROCEDURES & MILESTONES

The following flowchart gives a simplified record of procedures and milestones to be met during the project life cycle:



PAM-1: SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement in Section C1.2.4 of the Contract document, the status of the Contractor as mandatary to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2003.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2003, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Working high above the ground on top of the tank or inside, in a restricted environment with limited ventilation (confined space),
- Lifting and lowering of materials and equipment from the ground to the tank or pump station roof and vice versa, exposed to cross winds,
- Steep and restricted access to the foundations of the pump station,
- Potentially dangerous existing services, i.e. water mains, electrical high voltage cables, buried and overhead,
- Deep excavations in soils requiring shoring or reducing of slopes,
- High pressures during testing of the new pipelines, which could result in potentially dangerous situations in the event of the pipeline or fittings failing,
- Movement of construction vehicles on site, taking into consideration other traffic and existing services,
- Exposure to possible injuries due to mishandling or failure of power and hand tools,
- Non-conformance to specifications with regards to fasteners and materials,
- Risks related to general safety and security on site.

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

PAM-2: DEFINITIONS

For the purpose of this contract the following shall apply:

(a) "**Employer**" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "**client**" as defined in the Construction Regulations 2003. "**Employer**" and "**client**" is therefore interchangeable and shall be read in the context of the relevant document.

(b) "**Contractor**", wherever used in the contract documents and in this specification, shall have the same meaning as **"Contractor"** as defined in the General Conditions of Contract.

In this specification the terms **"principal contractor"** and **"contractor"** are replaced with **"Contractor"** and **"subcontractor"** respectively.

For the purpose of this contract the **Contractor** will, in terms of OHSA 1993, be the mandatary, without derogating from his status as an employer in his own right.

(c) **"Engineer"** where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

PAM-3: TENDERS

The Contractor shall submit the following with his tender:

(a) a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2003 and will be subject to approval by the Employer;

(b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003;

(c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.

(d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

PAM-4: NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

(a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
(b) the use of explosives;
(c) construction work that will exceed 30 days or 300 person-days;
(d) excavation work deeper than 1,0 m; or
(e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma included under Section 9 (Forms to be Completed by Successful Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

PAM-5: RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2003).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

PAM-6: APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

PAM-6.1 Health and Safety plan

The Contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

PAM-6.2 Health and safety induction training

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

PAM-7: APPOINTMENT OF SAFETY PERSONNEL

PAM-7.1: Construction Supervisor

The Contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

PAM-7.2: Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time Construction Safety Officer if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

PAM-7.3: Health and safety representatives

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a health and safety representative whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.
The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

PAM-7.4: **Health and safety committee**

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor (as employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

PAM-7.5: **Competent persons**

In accordance with the Construction Regulations the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

(a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
(b) Fall protection as described in Regulation 8;
(c) Formwork and support work as described in Regulation 10;
(d) Excavation work as described in Regulation 11;
(e) Demolition work as described in Regulation 12;
(f) Scaffolding work as described in Regulation 14;
(g) Suspended platform operations as described in Regulation 15;
(h) Material hoists as described in Regulation 17;
(i) Batch plant operations as described in Regulation 18;
(j) Explosive powered tools as described in Regulation 19;
(k) Cranes as described in Regulation 20;
(l) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
(m) Control of all temporary electrical installations on the construction site as described in Regulation 22.
(n) Stacking and storage on construction sites as described in Regulation 26; and
(o) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with **all** requirements of the Construction Regulations.

PAM-8: RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for **inspection at all times.**

(a) A copy of the OHSA 1993 Construction Regulations 2003;
(b) A copy of this Health and Safety Specification;
(c) A copy of the Contractor's Health and Safety Plan (Regulation 4);
(d) A copy of the Notification of Construction Work (Regulation 3);
(e) A health and safety file in terms of Regulation 5(7) with inputs by the Construction

Safety Officer [Regulation 6(7)];

(f) A copy of the risk assessment described in Regulation 7;

(g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 8;

(h) Drawings pertaining to the design of structures [Regulation 9(3)] and formwork and support work structures [Regulation 10(d)] must be kept on site;

(i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site [Regulation 11(3)(h)];

(j) A copy of the certificate of the system design for suspended platforms [Regulation 15(3)];

(k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists [Regulation 7(5)].

(l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site [Regulation 17(8)];

(m) A record of any repairs to or maintenance of a batch plant must be kept on site [Regulation 18(9)];

(n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used [Regulation 19(2)];

(o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant [Regulation 21(1)(j)].

PAM-9: CONTRACTOR'S RESPONSIBILITIES

For this contract the Contractor will be the mandatary of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatary (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

(a) Contractor's position in relation to the Employer (Client) *(Regulation 4)*

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

(b) The Principal Contractor and Contractor *(Regulation 5)*

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principal Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2003.

(c) Supervision of construction work *(Regulation 6)*

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

(d) Risk assessment *(Regulation 7)*

The Contractor shall have the risk assessment made as set out in paragraph 7 above before commencement of the work, and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) Fall protection *(Regulation 8)*

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures *(Regulation 9)*

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work *(Regulation 10)*

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work, including confined spaces *(Regulation 11)*

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

The Contractor will ensure that all precautionary measures as stipulated for confined spaces as determined in the General Safety Regulations promulgated by Government Notice No.R.1031 of 30 May 1986, as amended, are complied with

when entering any excavation.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(i) Demolition work *(Regulation 12)*

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor, does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling *(Regulation 13)*

The Contractor shall comply with Regulation 13 wherever tunnelling of any kind is involved.

(k) Scaffolding *(Regulation 14)*

The Contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [*Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"]*

(l) Suspended platforms *(Regulation 15)*

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Boatswain's chairs *(Regulation 16)*

Where boatswain's chains are required on the construction site, the Contractor shall comply with Regulation 16.

(n) Material Hoists *(Regulation 17)*

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(o) Batch plants *(Regulation 18)*

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools *(Regulation 19)*

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and

return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes *(Regulation 20)*

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant *(Regulation 21)*

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites *(Regulation 22)*

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.
All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(t) Use of temporary storage of flammable liquids on construction sites *(Regulation 23)*

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 2986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments *(Regulation 24)*

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

(v) Housekeeping on Construction sites *(Regulation 25)*

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(w) Stacking and storage on construction sites *(Regulation 26)*

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 26 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites *(Regulation 27)*

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires,

to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

(y) Construction welfare facilities *(Regulation 28)*

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2003

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

PAM-10: MEASUREMENT AND PAYMENT

PAM-10.1: Principles

It is a condition of this contract that Contractors who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

(a) Safety personnel

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses PAM-7.1 to 7.5 shall be members of the Contractor's personnel, and allowance for their costs will be made in the relevant items of the Bill of Quantities.

(b) Records and Registers,

The keeping of health and safety-related records and registers as described in PAM-8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.

ENVIRONMENTAL MANAGEMENT SPECIFICATION

PB ENVIRONMENTAL MANAGEMENT PLAN (EMP)

CONTENTS

1. INTRODUCTION AND BACKGROUND

Abaqulusi wants to provide security fence at the Coronation Wastewater Water plant. There is also a need of dredging primary clarifiers, secondary clarifier and the maturation pond.

2. PURPOSE AND FORMAT OF THE ENVIRONMENTAL MANAGEMENT PLAN

2.1 Introduction

In view of the potential impacts of the project an environmental management plan has been compiled. The effective implementation of this plan will ensure that all environmental impacts are avoided or minimised. It must be noted at this stage that various engineering options were assessed during project planning and the chosen route was the most feasible route for the western sewer.

The format of this environment management plan identifies various categories of concern with respect to potential impacts that are associated with the proposed development.

The management of impacts associated with various categories of concern is discussed as separate topics, as indicated in **Table 1** below.

TABLE 1: Category of Concerns

Section	Category of concern
4	Construction Camp
5	Soil
6	Water
7	Air
8	Flora and Fauna
9	Aesthetics
10	Waste
11	Social and Cultural
12	Archaeological and Cultural sites
13	Infrastructure
14	Rehabilitation and Site clearance

3. RESPONSIBILITIES FOR ENVIRONMENTAL MANAGEMENT

The contractor will be responsible for environmental control on site during construction and the maintenance period. The construction activities will be monitored and audited against the EMP.

3.1 Training and induction of employees

The contractor has the responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes sub-contractors, casual labour, etc.).

3.2 Complaints Register and Environmental Incident Book

Any complaints received by the project team from the community will be recorded. The complaint will be brought to the attention of the site manager. All complaints received will be investigated and a response given to the complainant within 28 days. All environmental incidents occurring on the site will also be recorded and reported to the relevant authority. The contact number for the Kwa-Zulu Natal Department of Agriculture and Environmental Affairs is (033) 347 1826 and the Department of Water Affairs and Forestry can be contacted on (031) 336 2700.

3.3 Environmental Auditing

Environmental audits will be undertaken by the Resident Engineer and it is envisaged that the construction period will be over three months with audits that will take place on a monthly basis or when construction reaches sensitive areas. It is assumed that environmental audits will also be undertaken by the Kwa-Zulu Natal Department of Agriculture and Environmental Affairs, from time to time.

In particular, the construction activities detailed in the following sections and their associated environmental impacts will be observed.

4. CONSTRUCTION CAMP

The camp will be located on a level area, within the construction area, and will be fenced off with 1.8m high diamond mesh fencing. It will also be screened with 1.8m high shade cloth to be tied to the inside of the fence,

If the camp cannot be located on an existing impermeable surface then the area to be used should be stripped of vegetation and topsoil, to a depth of at least 50cm. Topsoil will be stockpiled for use in rehabilitation,

The camp will be kept clean, neat and tidy at all times, with all construction stored in a neat and organised manner. No fires will be allowed on the site. At least two temporary ablution facilities are to be supplied by the Contractor on the camp site. The use of the natural bush for this purpose is strictly prohibited.

5. SOIL

5.1 Objectives

The impacts to soil associated with the construction phase of the project, will occur as a result of vegetation clearance, access route creation, site levelling, trenching and a river crossing. The main objectives are to minimise both disturbance of the land, and erosion and sediment transport from the site and to make maximum use of the soils on the site for rehabilitation and landscaping.

5.2 Actions

The following actions will be taken to achieve the above mentioned objectives.

(a) Topsoil will be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. This will avoid the loss of usefulness of the topsoil for rehabilitation purposes.

(b) Stockpiled topsoil will not be compacted and will be replaced as the final soil layer. Stockpiles will be protected by erosion-control berms, if necessary, and runoff will be reduced by channelling water into existing surface drainage systems. No vehicles will be allowed access onto the stockpiles after they have been placed. In all likelihood, stockpile sites will not be located in drainage lines or near watercourses.

(c) All precautions will be taken to prevent topsoil stockpiles from contamination with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and micro-organisms in the soil. In this regard, all equipment will be inspected regularly for oil or fuel leaks before it is operated. Leakages will be repaired using containment trays placed underneath the equipment until such leakage has been repaired. If soil is, in any event contaminated, it will be appropriately treated and disposed off at a permitted landfill site or regenerated using bio-remediation methods.

(d) Removing alien plants as they germinate will control the colonisation of stockpiles by invasive plants. The purpose of this is to reduce the risk of developing a weedy seedbank within the stockpiled soil. Soil should also be exposed for the minimum time possible once cleared of invasive vegetation, and will be vegetated with indigenous grasses.

(e) All cut and fill surfaces will be stabilised with appropriate material or measures once the works is complete.

(f) Erosion and donga crossings will be dealt with as river crossings, and appropriate soil erosion and control procedures will be applied to all embankments that are disturbed and destabilised.

(g) Any necessary borrow material to be used in the construction of the reservoirs and pipelines shall only be taken from designated borrow pits that have been approved by the Engineer, and have the approval of the PSC.

6. WATER

6.1 Objectives

Surface water quality could potentially be affected during the construction by sedimentation, and contaminated runoff (chemicals, diesel, oils, human excrement, concrete etc.) that could be generated from the working areas and contractors camp area. The main objectives are to ensure that runoff from the site does not affect water quality in the receiving water bodies, and to manage any potentially contaminated stormwater from the site.

6.2 Actions

(a) The contractor will have to make provision for water supplies for the duration of the contract.

(b) All potential contaminants (oil, diesel etc) will be stored in bunded areas, and appropriate structures and methods will be used to confine spillages. In the event of a spill appropriate corrective action will be taken (isolation of contaminated material and safe disposal, notification of incident etc). Stormwater runoff will be prevented from contacting wastes or contaminants on the site.

(c) Adequate sewage facilities will be provided on the site. This will require the provision of at least two temporary ablution facilities on the camp site as well as at least two ablution facilities a distance not exceeding 100m from the work force. This will require that the ablution facilities will have to be continually moved as construction of the pipeline proceeds.

(d) Measures shall be taken to ensure that excessive runoff and, a result, soil erosion does not occur from the site, particularly if it is located on sloping ground. Storm water diversions shall be construed above the Contractor's camp to direct runoff away from the site.

(e) No dumping of foreign material in streams, rivers and/or wetland areas will be allowed.

(f) Adequate sedimentation control measures will be instituted at any river crossings when excavations or disturbance of a riverbanks or riverbeds takes place. The same applies to excavations or disturbance of drainage lines near a wetland.

(g) Watercourses will not be drained, filled or altered in any way, without prior consent from the DWAF. The necessary licenses must be obtained in terms of Section 21of the National Water Act, 36 of 1998 from DWAF.

(h) No swimming, washing (including vehicles and equipment), fishing or related activity is permitted in a wetland or river and no fires or open flames are allowed in the vicinity of the wetland.

(i) Disturbances to nesting, breeding and roaming sites of animals in or adjacent to wetland areas will be minimised.

7. AIR AND NOISE

7.1 Objectives

It is envisaged that the major impacts on air quality that the development could have are with respect to noise and dust pollution. The objective in this category is to minimise noise and dust pollution.

7.2 Actions

(a) Speed limits of 20km/h will be implemented on delivery and construction vehicles in construction areas to limit the levels of dust pollution. Dust will be suppressed on access roads and construction sites during dry periods by the regular application of water that will be used in quantities, which will not generate run-off.

(b) Noise control measures will be implemented. All noise levels will be controlled at the source, and all employees will be given the necessary ear protection gear. All noisy activities (e.g.

blasting, transport of materials) will take place during normal working hours (i.e. 7am – 5pm). The Contractor will inform all adjacent landowners of any after-hour construction activities. In addition, no loud music will be allowed on site and in construction camps.

(c) Waste will be disposed of, as soon as possible on a permitted landfill site and will not be allowed to stand on site to decay, resulting in malodours. No fires will be allowed on the camp site and no fires will be allowed in the construction area if smoke from such fires will cause a nuisance to I&AP's.

8. FLORA AND FAUNA

8.1 Objectives

Vegetation on the site comprises some indigenous but mainly alien vegetation and there are likely to be many small mammals, birds and reptiles in the area. These will be mobile and should move away from construction activities.

Impacts are likely to be insignificant if pollution is adequately controlled. Nonetheless, the following actions are proposed.

8.2 Actions

(a) All suitable and rare flora and seeds will be rescued and removed from the site. They will be suitably stored, for future use in rehabilitation. The spread of alien vegetation will be minimised.

(b) The felling and/or cutting of trees and clearing of bush will be minimised. Bush will only be cleared to provide essential access for construction purposes.

(c) Any incident of unauthorised removal of plant material, as well as accidental damage to priority plants, will be documented by the Contractor.

(d) Woody vegetative matter stripped during construction will either be spread randomly throughout the surrounding veld or it may be stockpiled for later redistribution over the reinstated topsoiled surface. No vegetative matter will be burnt or removed for firewood other than those removed during the grubbing and clearing phase. No trees outside the footprint of the works area will be damaged.

(e) No species of animal may be poached, snared, hunted, captured or wilfully damaged or destroyed. Snakes and other reptiles that may be encountered on the construction site will only be killed if the animal endangers the life of an employee.

(f) Anthills and/or termite nests that occur will not be disturbed unless it is unavoidable for construction purposes, and disturbances to nesting sites of birds will avoided.

(g) The Contractor must ensure that the work site is kept clean and free from rubbish, which could attract pests.

9. AESTHETICS

9.1 Objectives

The visual impact of the construction activities may be substantial, although they will be short term. The long-term impacts of the project will be minimal. The objectives are to therefore to minimise the visual impact of the operation during construction and to restore the original topography once construction is complete.

9.2 Actions

(a) Damage to the natural environment will be minimised. The clearing of all sites in particular trees and tall woody shrubs will be kept to a minimum and surrounding vegetation will, as far as possible, be left intact as a natural shield. As far as possible, excavated material will not be placed on plants and movement across them will be prevented. No painting or marking of natural features will be allowed.

(b) Cut and fill areas, river and stream crossings and other soil stabilisation works must be constructed to blend in with the natural environment.

(c) Any complaints from I&AP's regarding the appearance of the construction site will be recorded and addressed promptly by the Contractor.

9. WASTE

9.1 Objectives

Best Environmental Practice advocates that waste should be avoided, recycled or at least disposed of in an acceptable manner. The main aims are to minimise the generation of wastes, to maximise re-use and recycling of waste material, and to contain, control and dispose of waste in accordance with the required waste management practices.

9.2 Actions

9.2.1 Solid Waste

(a) Littering on site and the surrounding areas will be prohibited. In this regard clearly marked litterbins will be provided on site. The Contractor must monitor the presence of litter on the work sites as well as the construction campsite.

(b) All waste removed from site will be disposed of at a municipal/permitted waste disposal site.

(c) Excess concrete, building rubble or other material will be disposed of in a permitted landfill and not indiscriminately over the construction site.

(d) The entire works area and all construction sites will be swept of all pieces of wire, metal, wood or other material foreign to the natural environment.

(e) Contaminated soil will be treated and disposed of at a permitted waste disposal site, or be removed and the area rehabilitated immediately.

(f) Waste must be recycled wherever possible.

9.2.2 Liquid Waste

(a) The Contractor will install and maintain mobile toilets at work sites.

(b) The Contractor will provide adequate and approved facilities for the storage and recycling of used oil and contaminated hydrocarbons. Such facilities will be designed and sited with the intention of preventing pollution of the surrounding area and environment.

(c) All vehicles must be regularly serviced in designated area within the Contractors camp such that they do not drip oil. All chemicals spills (typically fuel, oil, grease, paints and solvents) will be contained and cleaned up by the supplier or professional pollution control personnel.

10. SOCIAL AND CULTURAL

10.1 Objectives

The objectives in this category are to ensure that the local community gains maximum benefit from project and to minimise adverse effects that the activity might have on the community.

10.2 Actions

(a) Access by non-construction people onto any construction sites will be restricted. The Contractors activities and movement of staff will be restricted to designated construction areas only.

(b) The Contractors crew must be easily identifiable through clothing, identification cards or other methods, and no member of the construction workforce is allowed to wander around private property, except within the immediate surroundings of the site.

(c) Rapid migration of job seekers could lead to squatting and social conflict with resident communities and increase in social pathologies if not properly addressed. All labour will be employed by a Project Steering Committee (PSC).

(d) Criteria for selection and appointment (by the PSC) of construction labour must be established to allow for preferential employment of local communities.

(e) Sub-Contractors and their employees must comply with all the requirements of this document and supporting documents. Absence of specific reference to the sub-contractor in any specification does not imply that the sub-contractor is not bound by this document. The Contractor must also arrange for all his employees and those of his sub-contractors to be informed of the findings of the environmental report before the commencement of construction.

(f) Supervisory staff of the Contractor or his sub-contractors must not direct any person to undertake any activities which would place such person in contravention of the specifications of this document, endanger his/her life or cause him/her to damage the environment.

(g) The demand for construction materials and supplies will have an effect on the local economy. This impact will be optimised by sourcing and purchasing materials locally and regionally wherever possible, insofar as the material complies with the design specification.

(h) Under no circumstances will the camp site or construction area be used to accommodate any employees of the contractor (full time or contractual). Suitable accommodation can be found in either the neighbouring areas or Vryheid town.

(i) The Contractor will maintain a detailed complaints register. This must be forwarded, together with solutions, to the authorities when requested.

(j) The location of all infrastructure such as reservoirs, pipelines and standpipes, shall be decided in consultation with the community representatives and other affected community members.

11. ARCHAEOLOGY AND CULTURAL SITES

11.1 Objectives

To protect archaeological and cultural sites.

11.2 Actions

(a) All finds of human remains must be reported to the nearest police station.

(b) Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

(c) Work in areas where artefacts are found must cease immediately.

(d) Under no circumstances must the Contractor, his/her employees, his/her sub-contractors or his/her sub-contractors' employees remove, destroy or interfere with archaeological artefacts. Any person who causes intentional damage to archaeological or historical sites and/or artefacts could be penalised or legally prosecuted in terms of the National Heritage Resources Act, 25 of 1999.

(e) A fence at least 2 m outside the extremities of the site must be erected to protect archaeological sites.

(f) All known and identified archaeological and historical sites must be left untouched.

(g) Work in the area can only be resumed once the site has been completely investigated. The Project Manager will inform the Contractor when work can resume.

12. INFRASTRUCTURE

12.1 Objectives

The main objective in this category is to ensure that all existing infrastructure and services is not damaged or disrupted and that the relevant infrastructure necessary for the successful implementation of the project is constructed.

12.2 Actions

(a) The relevant authorities will be notified of any interruptions of services, especially the Local Municipality, National Road Agency, Spoornet, TELKOM and ESKOM. In addition, care will be taken to avoid damaging services. The integrity of property fences will be maintained.

(b) Proper storage facilities should be provided for the storage of oils, grease, fuels, chemicals and hazardous materials.

(c) All reasonable precautions must be taken during construction to avoid severely interrupting the traffic flow on existing roads, especially during peak periods. Before any work that will affect traffic can start the Local Traffic Department will be consulted about measures to be taken regarding pedestrian and vehicular traffic control.

(d) The Contractor will collaborate with the affected landowner on the planning and construction of new access routes and the repair or upgrading of existing routes. Access to the site will be controlled such that only vehicles and persons directly associated with the work gains access to the site. Temporary access roads will not be opened until required and will be restored to its former state as soon as the road is no longer needed.

(e) Temporary access roads shall be constructed with adequate drainage measures to allow for storm water to drain away from the road. Topsoil is to be removed and stockpiled, to be used to rehabilitate the roads at the end of the contract period. Dust control on access roads shall be exercised if necessary.

(f) Concrete will only be mixed in an area demarcated for this purpose. After all concrete mixing is complete, all waste concrete must be removed from the batching area and disposed of at a permitted landfill. Water laden with cement will be collected and not allowed to escape the batching area. It should be allowed to evaporate with the residue being disposed of at a permitted landfill.

(g) Chemical toilet facilities should be managed and serviced by a qualified company. No disposal or leakage of sewerage should occur on or near the site.

(h) No blasting will be permitted during the contract.

13. REHABILITATION AND SITE CLEARANCE

13.1 Objectives

It is necessary to minimise destruction of this vegetation where possible and to re-create natural habitat where vegetation is destroyed. Rehabilitation is also necessary for aesthetics and erosion control in the area. The objectives are therefore to re-create (where possible) the floral integrity and diversity of the area, to minimise long term erosion potential, and to reduce the visual impact of the construction activities.

13.2 Actions

(a) Any areas which have been disturbed but are no longer in use will be rehabilitated (this includes temporary access routes, borrow areas, storage areas etc) throughout the duration of the construction.

(b) If areas had their topsoil removed and stockpiled prior to use, the surface will be ripped and the fertilised topsoil replaced where possible.

(c) No exotic species of grass will be used to rehabilitate areas.

(d) When all major construction activities are completed, the site will be inspected to determine site-specific rehabilitation measures. This may be considered as unplanned work e.g. soil rehabilitation due to oil spills.

(e) All temporary buildings and foundations, equipment, lumber, refuse, surplus materials, waste, construction rubble fencing and other materials foreign to the area will be removed. If waste products cannot be recycled they will be disposed of at a permitted landfill site.

(f) Cut and fill areas must be restored and re-shaped.

(g) Areas compacted by vehicles during construction must be scarified to allow penetration of plant roots and the regrowth of natural vegetation.

(h) Hunting is strictly prohibited, including the use of traps and snares.

14. MEASUREMENT AND PAYMENT

10.1 Principles

It is a condition of this contract that Contractors who submit tenders for this contract, shall make provision in their tenders for the cost of all environmental measures during the construction process. There is however a provisional sum allocated in the Schedule of Quantities which will be used for any unforeseen work with regards to rehabilitation at the discretion and approval of the Engineer.

PD: EPWP REQUIREMENT - PROVISION OF STRUCTURED TRAINING

CONTENTS

PD.1 SCOPE

This specification covers the requirements for the provision of structured training to be arranged by the contractor over the period of this contract.

PD.2 GENERIC TRAINING

PD.2.1 The contractor shall, from the commencement of the contract, implement a structured progressive training programme.

PD.2.2 The generic training will inter alia comprise, but not be limited to the following subjects:

Course Description	Estimated No. Of Trainees	Estimated Duration (Days)
1. Road safety for construction workers		……
2. Flagmen		……..
3. Concrete handling, placing and finishing		……
4. Guardrails		……
5. Bituminous road surfacing		……

PD.2.3 Training shall be at or by an approved accredited organisation and shall be delivered by suitably qualified and experienced trainers.

PD.2.4 The tenderer shall provide with his tender full details of the structured training programme he intends to implement, which details shall include the following:
(a) The name of the training institution and programme
(b) The manner in which the training is to be delivered.
(c) The numbers and details of the trainers

PD.2.5 The contractor shall be responsible for the provision of everything necessary for the delivery of the generic training programme, including the following:

(a) A suitable venue with sufficient furniture, lighting and power.
(b) All necessary stationery consumables and study material
(c) Transport of the students (as necessary)
(d) Payment of wage to all trainees during the classroom training at a rate equal to the minimum wage as set in the Ministerial Determination for the Expanded Public Works

Programme on an annual basis.
(e) relevant PPE required for the project works
(f) Additional supervision of learners during the practical learning stages of the works. Wage for the leaners during this stage of the training will be paid through the outputs.

PD.2.6 Generic training courses shall commence within one month of possession of site and be completed before the end of the contract period.

PD.2.7 The contractor's training programme shall be subject to the approval of the engineer, and the contractor shall if so instructed by the engineer alter or amend the programme and course content if a need is identified once the contract commences.

PD.2.8 The contractor shall keep comprehensive records of the training given to each student and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each student shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor.

PD.3 ENTREPRENEURIAL SKILLS TRAINING

PD.3.1 Small contractors and subcontractors will be entitled to receive a structured training programme, which will comprise both management skills as well as business development skills.

PD.3.2 The contractor shall closely monitor the performance of all small subcontractors in the execution of their contracts and shall identify all such subcontractors who, in his opinion, display the potential to benefit from structured training as may be provided for in the contract and where required by the engineer, shall make recommendations in this regard. The final list of candidates will be decided between the contractor and the engineer.

PD3.3 The training will be delivered by trainers who are accredited by the Civil Engineering Training Scheme (CEITS) or other institutions recognised by the Department of Labour. Accredited training refers to both the trainers as well as to the training material.

PD3.4 The contractor shall facilitate in the delivery thereof, by instructing and motivating the subcontractor regarding attendance and participation therein.

PD.3.5 The contractor shall further make all reasonable efforts to co-ordinate the programming of the subcontractor.

PD.3.6 The structured training will comprise out of the following as decided by the Employer:

Course Description	**Estimated Duration (Days)**
1. Basic Business Principles	……
2. Basic Supervision	……..
3. Running A Business	……
4. Legal Principles	……
5. Achieving Standards	……

PD.3.7 The contractor shall provide with his tender, full details of the structured training programme, which he intends to implement, which details shall include the following:
(a) The name of the training institution and programme
(b) The various aspects of each type of training comprised in the programme
(c) The manner in which the training is to be delivered
(d) The numbers and details of the trainers to be utilised.

PD.3.8 The contractor shall be responsible for the provision of everything necessary for the delivery of the entrepreneurial training programme, including the following:
(a) A suitably furnished venue (if required) with lighting and power.
(b) All necessary consumables, stationery and study material
(c) Transport of the subcontractors (as necessary)

PD.3.9 All entrepreneurial training shall take place within normal working hours.

PD.3.10 The contractor's training programme shall be subject to the approval of the engineer, and the contractor shall if so instructed by the engineer alter or amend the programme and course content if a need is identified once the contract commences.

PD.3.11 The contractor shall keep comprehensive records of the training given to each subcontractor and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor

PD.4. IN SERVICE TRAINING

PD.4.1 The contractor shall in addition to the structured (accredited) training as provided for in Part C of this document implement an in-service training programme, from the commencement of the contract, in which the various skills required for the execution and completion of the works are imparted to the labourers engaged thereon, in a programmed and progressive manner. Labourers shall be trained progressively throughout the duration of the contract, in the various stages of a particular type of work.

PD.4.1.1 Details of in-service training

(i) The contractor shall attach to applicable returnable form the basic details of his proposed in- service training programme, which details shall inter alia include the following:

- the details of training to be provided
- the manner in which the training is to be delivered
- the number and details of trainers to be utilised.

(ii) The in-service training programme shall be submitted with the initial works programme. The progress in relation to this programme will be recorded monthly and attached to the site meeting minutes and payment certificate.

(iii) The contractor shall provide on site, sufficient skilled and competent trainers to train all labourers engaged on the contract, in the various skills required for the execution and completion of the works.

(iv) All labourers shall be remunerated in respect of all time spent undergoing training.

(v) Every worker engaged on the contract shall on the termination of his participation on the contract, be entitled to receive from the contractor, a certificate of service in which the following information shall be recorded:

- the name of the contractor

- the name of the employee
- the name of the project/contract
- the nature of the work satisfactorily executed by the worker and the time spent thereon
- the nature and extent of training provided to the worker
- the dates of service.

(vi) The cost of the above obligations shall be deemed to be covered by the sums and rates tendered for items B13.01(a), (b) and (c) in the bill of quantities. The performance of the contractor in providing in-service training, shall be taken into consideration should the contractor fail to reach his CPG at the completion of the project.

PD.4.1.2 Lead time for training

The training of labour as specified shall, as far as possible, take place before commencement of each activity and the contractor shall take into account in his programme the lead-time he requires for such training. All training herein specified shall be deemed to be a construction activity and a non-negotiable condition of the contract". All formal training is to be documented in terms of the National/Provincial submission forms, and accompanied by an attendance register for the applicable days.

PD.5 MEASUREMENT AND PAYMENT

	ITEM	**UNIT**
E12.05 Provision for training		
(a)	Generic skills Provisional (list training courses)	sum
(b)	Entrepreneurial skills Provisional	sum

(c) Handling cost and profit in respect of sub-item E12.05(a) and (b) above percentage (%)

(d) Training venue (only if required) lump sum
(e) Transport and accommodation of workers for training where it is not possible to undertake the training in close proximity to the site. (provisional sum) sum
(f) Additional supervision during practical training Lump sum

The prime cost sums are provided to cover the actual costs (including wages, tools and PPE) for attendance of accredited training courses as agreed with the engineer and shall be expended in accordance with the provisions of sub-clause 48(2) of the general conditions of contract. The tendered percentage in sub-item 4.1(c) is a percentage of the amount actually spent under sub-items 4.1(a) and (b) which shall include full compensation for the contractor's handling cost, profit, mentoring, record keeping, reporting and all other costs in connection therewith.

The lump sum tendered for 4.1(d) shall include full compensation for the provision of the training venue, for all necessary lighting, power, furniture, stationery, consumables and study material and for transportation of the students to and from the training venue. Payment of the lump sum will be made in two instalments as follows:

(i) The first instalment, 75% of the lump sum, will be paid after the contractor has met all his obligations regarding the provision of the training venue as specified.

(ii) The second and final instalment, 25% of the lump sum, will be paid after the provision

of all the accredit training as specified in the document.

The lump sum tendered for 4.1 (e) shall include full compensation for the provision of additional supervisory staff to manage the output generated from the learners during practical training.

C4 SITE INFORMATION

C4.1 LOCALITY PLAN

The site can be accessed via the R69 regional road, if travelling from the Vryheid/ Louwsburg direction.

C4.2 ACCESS TO SITE AND RESTRICTIONS

The site can be accessed via the R69 regional road, if travelling from the Vryheid/ Louwsburg direction.

Permission as may become necessary shall be the responsibility of the Contractor to obtain.

Having been granted access to works areas by the Employer, other service authorities and private owners, the Contractor shall adhere to any agreed conditions of access and ensure the works area is left in a condition similar to when it was first accessed.

C4.3 SECURITY

The Contractor shall be responsible for the security of his personnel, materials, equipment and construction plant on and around the site of the Works and for the security of his camp (if applicable). The Employer in this regard will consider no claims.

ANNEXURES

C5.1 DRAWINGS

The drawings issued to tenders as part of the tender documents must be regarded as provisional and preliminary for the tenderer's benefit to generally assess the scope of work.

The work shall be carried out in accordance with the latest available revision of the drawings approved for construction (AFC)

At commencement of the contract, the Engineer shall deliver to the Contractor copies of the AFC drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings for construction purposes as may be necessary for adequate construction, completion and defects correction of the works.

All drawings and specifications and copies thereof remain the property of the Employer, and the Contractor shall return all drawings and copies thereof to the Employer at the completion of the contract.

The drawings listed in the table overleaf have been bound and issued sperately for tender purposes.

Tenderers are to ensure that they receive a complete set of the tender drawings and must immediately inform the Engineer of any drawings that are missing so that further copies can be issued.

LIST OF DRAWINGS ISSUED FOR TENDER:

NUMBER	REV	DESCRIPTION