

# MPFUMELELO BUSINESS ENTERPRISE

QUOTATION NO: 150362/1

**APPOINTMENT OF SERVICE PROVIDER FOR THE INSTALLATION 700MM GRP  
SN5000 PIPELINE) AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN  
THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1**

<b>Name of Entity</b>	
<b>Price (Excl. VAT)</b>	
<b>CIDB</b>	<b>3 CE OR HIGHER</b>

<b>Prepared &amp; Issued By:</b> Mpumelelo Business Enterprise 21 Norwin White River <b>Mpumalanga</b> 1240 Tel: 013-751-3301 Fax: 013-751-2498	<b>Enquiries:</b> <b>Pastor Thuli Mhlongo</b> Mpumelelo Business Enterprise 21 Norwin White River Mpumalanga 1240 Cell: 082-53330121
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SUBMISSION DETAILS

<b>TENDER BOX</b>	<ul style="list-style-type: none"><li>• <b>MPFUMELELO BUSINESS ENTERPRISE 2A WALTER SISULU STREET, GROUND FLOOR, MIDDELBURG(MPUMALANGA)</b></li><li>• <b>OR WORK PACKAGE 1 SITE OFFICE</b></li></ul>
<b>CLOSING DATE AND TIME</b>	<b>Friday, 5<sup>th</sup> May 2023 @ 12H00</b>

# **MPFUMELELO BUSINESS ENTERPRISE**

**QUOTATION NO: 150362/1**

**APPOINTMENT OF SERVICE PROVIDER FOR THE INSTALLATION OF 700MM  
GRP SN5000 PIPELINE) AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME  
IN THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1**

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# MPFUMELELO BUSINESS ENTERPRISE

QUOTATION NO: 150362/1

## APPOINTMENT OF SERVICE PROVIDER FOR THE INSTALLATION 700MM GRP SN5000 PIPELINE) AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1

MPFUMELELO BUSINESS ENTERPRISE hereby invites quotations from suitably qualified service providers for the APPOINTMENT OF SERVICE PROVIDER FOR **THE INSTALLATION 700MM GRP SN5000 PIPELINE** AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1.

Quotations may only be submitted on the quotation document issued. Copies of the quotation document will be available at **Mpfumelelo Business Enterprise Site Office Building at reception** and **Nkangala District Municipality**.

Quotations, in a sealed envelope and clearly marked “***Quotation number and description of the project***”, must be submitted in the Tender Box at Mpfumelelo Business Enterprise site office or Nkangala District Municipality at 2A Walter Sisulu Street, Middelburg, Mpumalanga, not later than **12H00 on 5<sup>th</sup> May 2023**.

### GENERAL:

- Quotations shall remain valid for a period of **90** days from the closing; no, no late, faxed or e-mailed quotations will be accepted.

For enquiries, please contact **Pastor Thuli Mhlongo** at **082-53330121** during office hours, Monday to Friday, between 07H30-13H00 and 13H45-16H15.

Quotations will be evaluated in terms of the Supply Chain Management policy of the **Nkangala District Municipality**. The lowest quotation will not necessarily be accepted and the right to accept the whole or part of any quotation or not to consider any quotation not suitably endorsed is fully reserved by **Mpfumelelo Business Enterprise**.

<b>INSTRUCTIONS TO QUOTATIONS:</b>	
1.	Failure to complete all returnable schedules and signing thereof will result in an automatic disqualification.
2.	Proposals and any other supporting documents must be attached to the back of this quotation document.
3.	No quotation document will be considered unless submitted on Council's Official quotation Document.
4.	A quotation document submitted by a registered company may not be considered unless accompanied by a resolution of a Board of Directors of the Company authorizing the person to sign the quotation document on behalf of the Company.
5.	Quotations completed in ink shall be submitted in a sealed envelope, clearly marked with the relevant Project number and / or project description, to Tender Box.
6.	Quotations received after the closing date and time shall not be considered.
7.	The Council retains the right to call for any additional information that it may deem necessary.
8.	The Council will not be held responsible for any expenses incurred by the company in preparing and submitting the quotations.
9.	If quoting as a Joint Venture, the Joint Venture Agreement must be submitted with the quotation documents detailing the split of responsibilities in terms of the tender specifications, i.e. the percentage of work to be done by each partner.
10.	Check the quotation documents on receipt for completeness and notify the employer of any discrepancy or omission.
11.	Treat as confidential all matters arising in connection with the quotation. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a quotation offer in response to the invitation.
12.	Obtain, as necessary for submitting a quotation, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the quotation documents by reference
13.	Pricing the tender  State the rates and prices in South African currency (ZAR) Rand.
14.	Quotations communicated on paper shall be submitted as original.
15.	<b>Telephonic, telegraphic, telex, facsimile or e-mailed quotations will <u>not</u> be accepted.</b>
16.	Accept that quotations, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive
17.	The quotation validity period is <b>90</b> Days.

18	The company, quoting, 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.						
19	<p><b>The following is required to be submit with the quotation:</b></p> <p>(1) A valid Tax Clearance Certificate issued by the South African Revenue Services;</p> <p>(2) A copy of the Company / CC Registration. In case of Joint Venture –both companies / cc to submit registration documentation.</p> <p>(3) In case of Joint Venture – the Joint Venture Agreement.</p> <p>(4) Duly signed and dated of Authority of Signatory on company Letterhead.</p> <p>(5) Specific Goals in terms of the provisions of the Preferential procurement Regulations, 2022</p>						
20	<p><b>Eligibility</b></p> <p>Only those bidders who satisfy the following criteria are eligible to submit tenders:</p>						
21	<p><b>Evaluation of Quotations</b></p> <p>Notice is drawn to the fact that the awarding of this quotation will be in terms of the Supply Chain Management Policy of the Nkangala District Officer and prescribed evaluation criteria in terms of the Supply Chain Management Regulations, 2005</p>						
22	<b>Evaluation points</b>						
	<p>Preference points for this bid shall be awarded for:</p> <p>(a) Price; and</p> <p>(b) Specific Goals in terms of the Preferential Procurement Regulations 2022</p>						
	The maximum points for this quotation are allocated as follows:						
	<table border="1"> <tr> <td></td><td><b>POINTS</b></td></tr> <tr> <td><b>PRICE</b></td><td><b>80</b></td></tr> <tr> <td><b>SPECIFIC GOALS</b></td><td><b>20</b></td></tr> </table>		<b>POINTS</b>	<b>PRICE</b>	<b>80</b>	<b>SPECIFIC GOALS</b>	<b>20</b>
	<b>POINTS</b>						
<b>PRICE</b>	<b>80</b>						
<b>SPECIFIC GOALS</b>	<b>20</b>						

	<b>Total points for Price and Specific Goals must not exceed</b>	<b>100</b>	
23	The number of paper copies of the signed contract to be provided by the Employer is one.		
24	<p>The additional conditions of the quotation are:</p> <ol style="list-style-type: none"> <li>1 Mpfumelelo Business Enterprise may also request that the company quoting provide written evidence that his financial, labor and resources are adequate for carrying out the project.</li> <li>2 Mpfumelelo Business Enterprise reserves the right to appoint a firm of chartered accountants and auditors and / or execute any other financial investigations on the financial resources of any entity quoting. The entity quoting shall provide all reasonable assistance in such investigations.</li> <li>3 Mpfumelelo Business Enterprise reserves the right to appoint a different Contractor for each project. The entity quoting shall be required to complete the form of offer.</li> <li>4 That the issuing by the contractor of cessions is expressly prohibited except if and when prior written approval of the Mpfumelelo Business Enterprise under the signature of the Municipal Manager for the issue of a cession has been requested and obtained.</li> </ol>		

# MPFUMELELO BUSINESS ENTERPRISE

QUOTATION NO: 150362/1

## APPOINTMENT OF SERVICE PROVIDER FOR THE INSTALLATION 700MM GRP SN5000 PIPELINE) AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1

### T2.1 LIST OF RETURNABLE DOCUMENTS

The following returnable Schedules MUST be completed:

#### Returnable Schedules required for evaluation purposes

Form A	INVITATION TO BID
Form B	DECLARATION OF GOOD STANDING REGARDING TAX
Form C	DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES
Form D	AUTHORITY OF SIGNATORY
Form E	PREFERENCE SCHEDULE
Form F	DECLARATION OF INTEREST
Form G	FINANCIAL REFERENCES /BIDDER'S CREDIT RATING AND BANK DETAILS
Form H	CERTIFICATE OF INDEPENDENT BID DETERMINATION
Form I	DECLARATION OF MUNICIPAL ACCOUNT
Form J	SCHEDULE OF PREVIOUS EXPERIENCE
Form K	SCHEDULE OF CURRENT PROJECTS
Form L	SCHEDULE OF PROPOSED SUB- CONTRACTORS
Form M	DECLARATION OF TENDERER'S LITIGATION HISTORY

**PART A**  
**INVITATION TO BID**

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (MPFUMELELO BUSINESS ENTERPRISE)</b>					
BID NUMBER:	150362/1	CLOSING DATE:	26-April-2023	CLOSING TIME:	12:00
DESCRIPTION	APPOINTMENT OF SERVICE PROVIDER FOR THE INSTALLATION 700MM GRP SN5000 PIPELINE) AT LOSKOP REGIONAL BULK WATER SUPPLY SCHEME IN THEMBISILE HANI LOCAL MUNICIPALITY, WORK PACKAGE 1				
<b>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).</b>					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
<b>SITE OFFICE MPFUMELELO BUSINESS ENTERPRISE/ OR NKANGALA DISTRICT MUNICIPALITY</b>					
<b>SUPPLIER INFORMATION</b>					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No	B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES &amp; QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]</b>					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3 ]		
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R		
SIGNATURE OF BIDDER	.....	DATE			
CAPACITY UNDER WHICH THIS BID IS SIGNED					
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:</b>		<b>TECHNICAL INFORMATION MAY BE DIRECTED TO:</b>			
DEPARTMENT	Supply Chain	CONTACT PERSON	Mr B.S Nkosi		
CONTACT PERSON	Mr S.I Masilela	TELEPHONE NUMBER	013 249 2055		
TELEPHONE NUMBER	013 249 2104	FACSIMILE NUMBER			



FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

**PART B**  
**TERMS AND CONDITIONS FOR BIDDING**

<b>1. BID SUBMISSION:</b>
<p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. <b>ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE</b></p> <p>1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.</p>
<b>2. TAX COMPLIANCE REQUIREMENTS</b>
<p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.</p> <p>2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.</p> <p>2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.</p> <p>2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.</p> <p>2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.</p> <p>2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p>
<b>3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS</b>
<p>3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><b>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.</b></p>

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

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....

DATE: .....

**ATTACH THE FOLLOWING DOCUMENTS HERETO**

**1. For Closed Corporations**

- CK1 or CK2 as applicable (Founding Statement)
- Copy(s) of ID(s) of Director(s)

**2. For Companies**

- A copy of the Certificate of Incorporation
- Copy(s) of ID(s) of Director(s) and
- the shareholders register.

**3. For Joint Venture Agreements**

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

**4. For Partnership**

- Copy(s) of ID(s) of Director(s) of the partners

**5. One person Business / Sole trader**

- Copy of ID

**6. Details of Tax Compliance Status from South African Revenue Service and Provide eSARS to access.**

**7. Duly Signed and dated original or copy of Authority of Signatory on company Letterhead**

**8. Specific Goals claim in terms of the Preferential Procurement Regulations 2022**

**FORM B: DECLARATION OF GOOD STANDING REGARDING TAX (MBD 2)****DETAILS OF TAX COMPLIANCE STATUS:**

TAXPAYER NAME	
TRADING NAME	
TAX REFERENCE NUMBER (S)	
VAT	
PIN	
EXPIRY DATE	

**TAX CLEARANCE CERTIFICATE REQUIREMENTS**

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

1. In order to meet this requirement bidders are required to apply for Tax Compliance Status (TCS) online or at any SARS branch office nationally. The Tax Compliance Status (TCS) requirements are also applicable to foreign bidders / individuals who wish to submit bids.
2. SARS will then furnish the bidder with a Tax Compliance Status (TCS) that will be valid for a period of 1 (one) year from the date of approval.
3. The Tax Compliance Status (TCS) must be submitted together with the bid. Failure to submit the Tax Compliance Status (TCS) will result in the invalidation of the bid.
4. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Compliance Status (TCS).
5. Applications for the Tax Compliance Status (TCS) may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website [www.sars.gov.za](http://www.sars.gov.za).



## FORM C: 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 2005).
- 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	<p><b>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?</b></p> <p>(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 <i>audialterampartem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p><b>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 2005)?</b></p> <p><b>The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.</b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

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 <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	<b>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?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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 <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

#### **CERTIFICATION**

**I, THE UNDERSIGNED (FULL NAME).....**

**CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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**

**FORM D: AUTHORITY OF SIGNATORY**

Details of person responsible for tender process:

Name :	
Contact number :	
Office address :	

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

**PRO-FORMA FOR COMPANIES AND CLOSE CORPORATIONS:**

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

Mr .....  


has been duly authorized to sign all documents in connection with the Tender for Contract Number

.....and any Contract which may arise there from on

behalf of .....

(BLOCK CAPTIALS)

SIGNED ON BEHALF OF THE COMPANY .....

IN HIS CAPACITY AS .....

DATE .....

FULL NAMES OF SIGNATORY .....

AS WITNESSES: 1. ....

2. ....

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



## PRO-FORMA FOR JOINT VENTURES:

### Certificate of Authority for Joint Ventures

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

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
		Signature: ..... Name: ..... Designation: .....
		Signature: ..... Name: ..... Designation: .....
		Signature: ..... Name: ..... Designation: .....
		Signature: ..... Name: ..... Designation: .....

## FORM E: PREFERENCE SCHEDULE

MBD 6.1

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

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

**NB: BEFORE COMPLETING THIS FORM, BIDDERS 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 all bids:

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

1.3 Preference points for this bid shall be awarded for:

(c) Price; and

(d) Specific goals in terms of the Preferential Procurement Regulations 2022

1.3.1 The maximum points for this bid are allocated as follows:

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

1.4 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

1.5 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

2.1 **“black people”** is a generic term which means Africans, Coloureds and Indians;

- 2.2 **“broad-based black economic empowerment”** means the economic empowerment of all black people including women, workers, youth, people with disabilities and people living in rural areas through diverse but integrated socio-economic strategies that include. but are not limited to:
- increasing the number of black people that manage, own and control enterprises and productive assets; facilitating ownership and management of enterprises and productive assets by communities, workers, cooperatives and other collective enterprises;
  - human resource and skills development;
  - achieving equitable representation in all occupational categories and levels in the workforce;
  - preferential procurement; and
  - investment in enterprises that are owned or managed by black people;
- 2.3 **“Designated group”** means Black designated groups; Black people; Women; People with disabilities; or Small enterprises, as defined in section 1 of the National Small Enterprise Act, 1996 (Act No. 102 of 1996);
- 2.4 **“Disability”** means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being.
- 2.5 **“Historically Disadvantaged Individual (HDI)”** means a South African citizen:
- who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa Act 110 of 1983 or the Constitution of the Republic of South Africa Act 200 of 1993 (“the Interim Constitution”); and / or
  - who is a female; and / or
  - who has a disability;
- Provided that a person who obtained South Africa citizenship on or after the coming into effect of the Interim Constitution is deemed not to be an HDI.
- 2.6 **“Locality”** means a business enterprise located within the boundaries of MPFUMELELO BUSINESS ENTERPRISE to score points for locality.
- 2.7 **“Reconstruction and development Programme as published in Government Gazette No. 16085 dated 23 November 1994”** means in terms of Section 2(1) of the PPPFA of 2000 an organ of state must implement the programmes of the RDP and provide for points to be awarded for specific goals. In particular, some of the RDP goals that need to be considered in developing the Preferential Procurement policies include:
- Previously Disadvantaged Individuals;
  - Women;
  - Disabled Persons;
  - Youth; and
  - Local Labour.

- 2.8 **“specific goals”** means specific goals as contemplated in section 2(1)(d) of the Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender and disability including the implementation of programmes of the Reconstruction and development Programme as published in Government Gazette No. 16085 dated 23 November 1994;
- 2.9 **“Targeted Enterprises”** means those enterprises (suppliers, manufacturers, service providers or construction works contractors) that own, operate or maintain premises within the target area defined in the contract, for the purposes of carrying out their normal business operations.
- 2.10 **“Targeted Labour”** means those individuals employed by a contractor, or sub-contractor, in the performance of a contract, who are defined in the contract as the target group, and who permanently reside in the defined target area.
- 2.11 **“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;
- 2.12 **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- 2.13 **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- 2.14 **“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
- 2.15 **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000)
- 2.16 **“Women equity”** means an organisation or company which has at least twenty five percent of women ownership.
- 2.17 **“Youth”** means persons between the ages of 14 and 35.

### 3. **FORMULAE FOR PROCUREMENT**

#### 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**

$$P_s = 80 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

$P_s$  = Points scored for comparative price of bid under consideration

$P_t$  = Comparative price of bid under consideration

$P_{\min}$  = Comparative price of lowest acceptable bid

#### 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 bid. For the purposes of this bid, the bidder will be allocated points based on the goals stated in table below as may be supported by proof/ documentation stated in the conditions of this bid:

The specific goals allocated points in terms of this tender	Number of points Allocated (80/20 system) (To be completed by the organ of state)		Number of points claimed (80/20 system) (To be completed by the tenderer)
HDI	30%	6	
Gender	30%	6	
Disability	30%	6	
Local Labour	5%	1	
Youth	5%	1	

#### 4.2 SPECIFIC GOALS CLAIM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022:

##### 4.2.1 NOTE 1 – HDI IN TERMS OF PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT NO. OF 2000, CLAUSE 2.1(d)

It must be noted that a total points of **30%** are obtainable in relation to the requirements as mentioned on the table above. Proof of in the form of **Ownership Information** contained in the **Central Supplier Database (CSD)** full report. Failure to submit evidential supporting documents (**refer to Note: 1**) is not an eliminating factor BUT a zero point will be scored.

Category	Specific goals points
51% - 100% HDI owned companies	30%
10% - 50% HDI owned companies	15%
0% - 10% HDI owned companies	0%

**NOTE 2 - GENDER IN TERMS OF PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT NO. OF 2000, CLAUSE 2.1(d)**

It must be noted that a total points of **30%** are obtainable in relation to the requirements as mentioned on the table above. Proof of in the form of **Ownership Information** contained in the **Central Supplier Database (CSD)** full report. Failure to submit evidential supporting documents (refer to Note: 2) is not an eliminating factor BUT a zero point will be scored.

Category	Specific goals points
51% - 100% women owned companies	30%
10% - 50% women owned companies	15%
0% - 10% women owned companies	0%

**NOTE 3 – PEOPLE LIVING WITH DISABILITIES IN TERMS OF PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT NO. OF 2000, CLAUSE 2.1(d)**

It must be noted that a total points of **30%** are obtainable in relation to the requirements as mentioned on the table above. Proof of in the form of **Ownership Information** contained in the **Central Supplier Database (CSD)** full report. Failure to submit evidential supporting documents (refer to Note: 3) is not an eliminating factor BUT a zero point will be scored.

Category	Specific goals points
51% - 100% companies owned by people living with disabilities	30%
10% - 50% companies owned by people living with disabilities	15%
0% - 10% companies owned by people living with disabilities	0%

**NOTE 4 – YOUTH IN TERMS OF RECONSTRUCTION AND DEVELOPMENT PROGRAMME (RDP)**

It must be noted that a total points of **5%** are obtainable in relation to the requirements as mentioned on the table above. Proof of in the form of **Ownership Information** contained in the **Central Supplier Database (CSD)** full report. Failure to submit evidential supporting documents (refer to Note: 4) is not an eliminating factor BUT a zero point will be scored.

Category	Specific goals points
51% - 100% youth owned companies	5%
10% - 50% youth owned companies	2.5%
0% - 10% youth owned companies	0%

**NOTE 5 – COMPANIES RESIDING WITHIN NDM IN TERMS OF RECONSTRUCTION AND DEVELOPMENT PROGRAMME (RDP)**

It must be noted that a total points of **5%** are obtainable in relation to the requirements as mentioned on the table above. Proof of in the form of **Ownership Information** contained in the **Central Supplier Database (CSD)** full report. Failure to submit evidential supporting documents (refer to Note: 5) is not an eliminating factor BUT a zero point will be scored.

Category	Specific goals points
----------	-----------------------

Companies residing within NDM	<b>5%</b>
Companies residing within the province	<b>2.5%</b>
Companies outside the province	<b>0%</b>

**DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3 Name of firm:.....

4.4 VAT registration number.....

4.5 Company registration number:.....

4.6 **TYPE OF FIRM** ( Tick Applicable Box)

- ☐ Partnership/ Joint Venture/ Consortium  
☐ One Person business/ sole propriety  
☐ Close Corporation  
☐ Company  
☐ (Pty) Ltd  
☐ Other : Specify \_\_\_\_\_

4.7 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 bid, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- 4.8
- The information furnished is true and correct;
  - The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - 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;
  - 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.

**WITNESSES:**

1. ....

1. ....

.....  
SIGNATURE(S) OF BIDDER(S)

DATE:

ADDRESS:

.....

.....

.....

.....

.....



**FORM F: DECLARATION OF INTEREST**

**MBD 4**

1. No bid will be accepted from persons in the service of the state<sup>1</sup>.
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.

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

3.1 Full Name of bidder or his or her representative:.....

3.2 Identity Number: .....

3.3 Position occupied in the Company (director, trustee, shareholder<sup>2</sup>):.....

3.4 Company Registration Number:.....

3.5 Tax Reference Number:.....

3.6 VAT Registration Number.....

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

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

3.8.1 If yes, furnish particulars.....

.....

<sup>1</sup>MSCM Regulations: "in the service of the state" means to be –

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

- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

<sup>2</sup> Shareholder” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

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

3.9.1 If yes, furnish particulars.....

.....

3.10 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**

3.10.1 If yes, furnish particulars.

.....

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other 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**

3.11.1 If yes, furnish particulars

.....

.....

3.12 Are any of the company's directors, trustees, managers, principal shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars.

.....

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, Principal shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars.

.....

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **YES / NO**

3.14.1 If yes, furnish particulars:

.....  
 .....

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

#### DECLARATION

I, the undersigned (name): ..... certify that the information furnished is correct. I accept that the state may act against me in terms of paragraph 23 of the General Conditions of Contract should this declaration prove to be false.

.....  
 Signature

.....  
 Date

.....  
 Capacity

.....  
 Name of Bidder

## FORM G: FINANCIAL REFERENCES

### DETAILS OF TENDERERS BANKING INFORMATION

**Notes to tenderer:**

1. The tenderer shall attach to this form an original or a copy of a letter from the bank not older than three (3) months confirming the bank account and details. Failure to provide the required letter with the tender submission shall render the tenderer's offer unresponsive.
2. The tenderer's banking details as they appear below shall be completed.
3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.

<b>BANK NAME:</b>										
<b>ACCOUNT NAME:</b> <i>(e.g. ABC Civil Construction cc)</i>										
<b>ACCOUNT TYPE:</b> <i>(e.g. Savings, Cheque etc)</i>										
<b>ACCOUNT NO:</b>										
<b>ADDRESS OF BANK:</b>										
<b>CONTACT PERSON:</b>										
<b>TEL. NO. OF BANK / CONTACT:</b>										
How long has this account been in existence:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">0-6 months</td> <td style="width: 40px; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">7-12 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">13-24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">More than 24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	0-6 months	<input type="checkbox"/>	7-12 months	<input type="checkbox"/>	13-24 months	<input type="checkbox"/>	More than 24 months	<input type="checkbox"/>	(Tick which is appropriate)
0-6 months	<input type="checkbox"/>									
7-12 months	<input type="checkbox"/>									
13-24 months	<input type="checkbox"/>									
More than 24 months	<input type="checkbox"/>									

Name of Tenderer: .....

Date: .....

Signature: .....

Full name of signatory: .....

**ATTACH HERETO A STAMPED COPY OF A LETTER FROM BANK TO  
THIS PAGE NOT OLDER THAN THREE (3) MONTHS**

## FORM H: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- . This Municipal Bidding Document (MBD) must form part of all bids<sup>1</sup> 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).<sup>2</sup> 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:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

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

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

---

(Bid Number and Description)

in response to the invitation for the bid made by:

---

(Name of Municipality / Municipal Entity)

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

I certify, on behalf

of: \_\_\_\_\_ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>3</sup> 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.

<sup>3</sup> 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.



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 2005 or any other applicable legislation.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder

**FORM I: MUNICIPAL UTILITY ACCOUNT**

**DECLARATION BY THE TENDERER**

I the undersigned \_\_\_\_\_, has been duly

authorized to sign all documents with the Tender for Contract Number \_\_\_\_\_ on behalf of

\_\_\_\_\_ hereby make a declaration as follows:  
(referred to herein as "the Bidder")

1. I declare that the bidder and /or any of its director(s) / member(s) does not owe the municipality, or any other municipality and/or municipal entity any amount which is in arrears in respect of any municipal rates and taxes or municipal service charges.
2. I understand and accept that in the event that this declaration is proved to be false, the bid shall be rejected forthwith. All other rights of the municipality (including but not limited to the right to claim damages where applicable) shall remain reserved in full.

SIGNED ON BEHALF OF THE COMPANY

\_\_\_\_\_

IN HIS CAPACITY AS

\_\_\_\_\_

DATE

\_\_\_\_\_

FULL NAMES OF SIGNATORY

\_\_\_\_\_

UTILITY ACCOUNT NUMBER	NAME OF MUNICIPALITY	NAME OF OWNER

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

**Important: Note the following**

- List and attach Account(s) registered all in the name(s) of the Director(s) or the Company on the declaration form attached hereto; or
- Attach a copy Lease Agreement along with the utility account of the Landlord, whereby the company is leasing the property its operating from.

## FORM J: SCHEDULE OF PREVIOUS EXPERIENCE

The procedure for the evaluation of responsive Bids will be on the average of the **previous projects** where the firm was involved. Reference of clients **MUST** be provided.

Evaluation of the Quotation's position in terms of his previous experience. Emphasis will be placed on the following:

- Experience of contracts of similar size
- At least three of the references will be contacted to obtain their input.

Provide the following information on relevant previous experience (indicate specifically projects of similar or larger size and/or which is similar with regard to type of work. **This information is material to the award of the Contract.**

Description	Value (R) VAT excluded	Period work executed		Reference		
		Appointment Date	Completion Date	Name	Organisation	Tel no

## FORM K: SCHEDULE OF CURRENT PROJECTS

Provide the following information on current projects

**This information is material to the award of the Contract.**

Description	Value (R) VAT excluded	Appointment Date	Expected Completion Date	Reference		
				Name	Organisation	Tel no

**FORM L: SCHEDULE OF PROPOSED SUB-CONSULTANT**

Are / Do you have sub-contractors?

YES	NO
-----	----

If yes, complete the below

NAME OF SUB-CONTRACTOR	FULL DESCRIPTION OF WORK TO BE PERFORMED BY SUB-CONTRACTOR

**FORM M: DECLARATION OF TENDERER’S LITIGATION HISTORY**

Does the tenderer have any litigation with which tenderer (including its directors, shareholders or other senior members in previous companies) have been involved with any organ of state or state department within the last ten years?

YES	NO
-----	----

If yes, furnish your details in table below.

**NB: It is compulsory for all bidders to sign this form**

The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

CLIENT	OTHER LITIGATING PARTY	DISPUTE	AWARD VALUE	DATE RESOLVED

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder

<b>C.1.1</b>	<b>FORM OF OFFER</b>
<b>SUBCONTRACT FORM OF OFFER AND ACCEPTANCE</b>	

**(Agreement)**

**Offer**

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

.....

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 Subcontract Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Subcontractor under the Subcontract 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 Subcontract identified in the Subcontract Data.

**THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS**

.....

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

This Offer may be accepted by the Contractor by signing the Acceptance part of this Subcontract 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 Subcontractor in the Conditions of Subcontract identified in the Subcontract Data.

**For the Tenderer:**

.....  
**Signature**

.....  
**Name**

.....  
**Capacity**



**Name and address of organisation:**

.....  
.....  
.....

**Signature and name of witness:**

.....  
**Signature**  
.....  
**Name**  
.....  
**Date**

**Acceptance**

By signing this part of this Form of Offer and Acceptance, the Contractor identified below accepts the Tenderer's Offer. In consideration thereof, the Contractor shall pay the Subcontractor the amount due in accordance with the Conditions of Subcontract identified in the Subcontract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Contractor and the Tenderer upon the terms and conditions contained in this Agreement and in the Subcontract that is the subject of this Agreement.

The terms of the contract, are contained in:

- Part 1      Agreements and Subcontract Data, (which includes this Agreement)
- Part 2      Subcontract Pricing Data
- Part 3      Subcontract Scope of Work
- Part 4      Subcontract 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 Contractor 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 two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Contractor's agent (whose details are given in the Subcontract 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 Subcontract identified in the Subcontract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Subcontractor) within five days of the date of such receipt notifies the Contractor, in writing, of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties,

**For the Contractor:**

.....  
**Signature**

.....  
**Name**

.....  
**Capacity**

**Name and address of organisation:**

.....

.....

**Signature and name of witness:**

.....  
**Signature**

.....  
**Name**

.....  
**Date**

**Schedule of Deviations**

**Notes:**

1. The extent of deviations from the tender documents issued by the Contractor prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender,
2. A Tenderer’s covering letter shall not be included in the final contract document. Should any matter in such, letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here,

3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here,
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Subcontract.

1. **Subject** .....
- Details** .....
2. **Subject** .....
- Details** .....

By the duly authorised representatives signing this Schedule of Deviations, the Contractor 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 Contractor during this process of offer and acceptance.

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

**For the Tenderer:**

.....

Signature

.....

Name

Name and address of organisation:

.....

.....

.....

Witness Signature

.....

Witness Name

.....

Date

**For the Contractor:**

.....

.....

Name and address of organisation:

.....

.....

.....

.....

.....

## CONFIRMATION OF RECEIPT

The Tenderer, (now Subcontractor), identified in the Offer part of this Agreement hereby confirms receipt from the Contractor, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the ..... (day)  
of ..... (month)  
20 ..... (year)  
at ..... (place)

**For the Subcontractor:**

.....  
**Signature**

.....  
**Name**

.....  
**Capacity**

**Signature and name of witness:**

.....  
**Signature**

.....  
**Name**

## CONTRACT DATA

### GENERAL CONDITION OF SUBCONTRACT FOR CONSTRUCTION WORKS, FIRST EDITION (2018) CONDITIONS OF CONTRACT

The General conditions of subcontract for construction works, first edition (2018) published by the South African Institute of Civil Engineering, Private Bag X200, Halfway House, 1685 is applicable to this Contract and is obtainable from [www.saice.org.za](http://www.saice.org.za).

### CONTRACT SPECIFICATION DATA

The following contract specification data, referring to the General conditions of subcontract for construction works, first edition (2018) are applicable to this contract:

<b>Part 1: Data Provided by the Employer</b>	
<b>Clause</b>	<b>Data</b>
1.1.1.5	The “commencement date” means the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect.
1.1.1.13	The Subcontract Defects Liability Period for the Works shall be 365 days.
1.1.1.14	The time for achieving Subcontract Practical Completion is 1 calendar month which shall include 10 days of mobilization.
1.1.1.36	The Name of the main contractor is <b>Mpfumelelo Business Enterprise</b> The MBE Construction Manager is <b>Mr. Albert Oberholster</b>
1.2.1.2	The main contractor address for receipt of communication is: <b>Work Package 1 Site Office</b> <b>LOSKOP</b> <b>MIDDELBURG P</b> <b>O Box 437</b> <b>Middelburg</b> <b>1050</b> <b>Telephone: 013 751 3381</b> <b>Email: admin@mpfumelelo.co.za</b>
1.1.1.16	The Employer’s Agent is <b>Mpfumelelo Business Enterprise</b> , represented by <b>Mr Albert Oberholster</b>
1.2.1.2	The Employer’s Agent’s address for receipt of communication is: <b>21 Norwin White River PO Box 8125</b> <b>White River</b> <b>1240</b>

	<b>PO Box 8125</b> <b>White River</b> <b>1240</b> <b>Telephone: 013 755 1190</b> <b>Email: admin@mpfumelelo.co.za</b>
1.2.1	Add the following to the clause:  1.2.1.3 Sent by e-mail, irrespective of it being during office hours or otherwise. 1.2.1.4 Delivered by a courier service and signed for by the recipient or his representative.
1.1.1.26	The Subcontract pricing strategy is Re-measurement Contract.
1.3.5	Add the following new Clause:  The copyright in all documents, drawings and records (prepared by the Employer's Agent) related in any manner to the Works shall vest in the Employer, or the Employer's Agent or both (according to the dictates of the Contract that have been entered into by the Employer's Agent and the Employer for the Works), and the Contractor shall not furnish any information in connection with the Works to any person or organisation without the prior approval of the Employer to this effect.
5.3.1	The documentation required before commencement with Subcontract Works execution are:  Subcontract Health and Safety Plan (Refer to Clause 4.3) Subcontract Initial Programme (Refer to Clause 5.6) Subcontract Security (Refer to Clause 6.2) Subcontract Insurance (Refer to Clause 8.6)
5.3.2	The time to submit the documentation required before commencement with Subcontract Works execution is 14 days.

5.13.1	The penalty for failing to complete the Subcontract Works is R 1 000 Monetary value per day.
5.14.1	The requirements for achieving Subcontract Practical Completion is to complete all civil work as per the construction drawings.
6.8.2	Contract Price Adjustment will not be applicable for this contract.
6.10.3	The percentage retention is 5%. The Limit of Retention Money is 5% of the Contract Price at the time of the Agreement made in terms of the Form of Offer and Acceptance coming into effect

## PRICING INSTRUCTION

1. All activities must be invoiced on a monthly basis, based on the completion of the activity but not exceeding the allocated budget that has been priced for that activity.
2. Payment will be based on the completion of activities provided that reasonable progress towards the completion of the activity within the estimated budget is demonstrated.
3. The total price for the activities shall not be exceeded without the prior written approval and agreement of the Client.
4. The Schedule of Activities and the Bills of Quantities comprises items covering the service provider's profit and costs of general liabilities and includes costs of all services.
5. All rates and amounts must be completed by hand in black ink.
6. The schedule items cover the service provider's profit or general liabilities and the construction of temporary and permanent risks.
7. Although the tenderer is at liberty to insert a rate at his own choice for each item in the schedule, his attention is drawn to the fact that the employer has the right, under various circumstances, to payment for additional work carried out and that the Employer's Agent is obliged to base his assessment and the payment to be paid for such additional work on the rates inserted in the schedule by the tenderer.
8. The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the employer for the work described under several items. The prices shall be exclusive of Value Added Tax (VAT). Such prices shall cover all costs and expenses that may be required in and for the work described and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the document on which the tender is based.
9. In the event of the tenderer failing to price any item, it will be construed that the tenderer has made adequate allowance under other items for all labour, material and costs required for the exclusion, not only for the quantum of work covered by the unpriced item but also for any increase in the said quantum which may have to be undertaken during the course of the contract.
10. For the purposes of this Schedule of Activities and Bills of Quantities, the following words shall have the meanings hereby assigned to them:
  - Unit: The unit of measurement for each item of Service provided as defined in the Standardized Project or Particular Specifications.
  - Quantity (Qty): The number of units of work/service provision for each item.
  - Rate: The payment per unit of work/provision of services at which the Tenderer Tenders to do the work.
  - Amount: The quantity of an item multiplied by the Tendered rate of the (same) item.
  - Sum: An amount Tendered for an item, the extent of which is described in the schedule of activities, the scope of works or elsewhere, but of which the quantity of work is not measured



# BILL OF QUANTITIES

## CONSTRUCTION OF PIPELINES

ITEM NO.	REF	DESCRIPTION	UNIT	QUANT	RATE	AMOUNT
5	<b>SABS</b>					
	<b>1200DB</b>	<b><u>SITE CLEARANCE</u></b>				
5,1	<b>PSC 4.1</b>	a) Clear and Grub	m	520		
	<b>SABS</b>					
	<b>1200DB</b>	<b><u>EXCAVATION</u></b>				
	<b>PSDB1.1</b>	Excavate in all materials for trenches for 700DN pipes and smaller. Rate to include backfill, compact and dispose of surplus material				
5,2		a) Up to 1.5m deep	m³	38		
5,3		b) over 1.5m and up to 2.5m deep	m³	1280		
5,4		c) over 2.5m and up to 3.5m deep	m³	22,5		
	<b>PSDB1.2</b>	<u>Extra-over item 10.2 to 10.5 for :</u>				
5,5		a) Hard rock excavation	m³	398,5		
5,6	8.3.2c)	Excavate and dispose of unsuitable material from trench bottom (Prove)	m³	16,5		
5,7	8.3.3b)	Import backfill material from designated borrow area within the free haul distance of 1.0km.	m³	15		
5,8	8.3.3.3	Compaction in road reserves	m³	703		
	8.3.3.4	<u>Overhaul</u>				
5,9		a) Long overhaul in excess of 2.0km	m³.km	500		
	<b>SABS</b>					
	<b>1200DB</b>	<b><u>EXISTING SERVICES</u></b>				
	8.3.5a)	<u>Services that intersect a trench</u>				
5,10		a) Water and sewer pipelines	no	0,5		
5,11		b) Cables	no	0,5		
	8.3.5b)	<u>Services that adjoin a trench</u>				
5,12		a) Water and sewer pipelines	m	1		
5,13		b) Cables	m	5		
	<b>SABS</b>					
	<b>1200LB</b>	<b><u>PIPE BEDDING</u></b>				
		<u>Selected granular material for bedding cradle from:</u>				
5,14	8.2.1	a) Trench excavation	m³	477		
5,15		b) Commercial Sources	m³	24		
		<u>Provision of selected fill material from:</u>				
5,16	8.2.1	a) Trench excavation	m³	141		
5,17	8.2.1	b) Commercial Sources	m³	7		
<b>TOTAL CARRIED FORWARD</b>						

ITEM NO.	REF	DESCRIPTION	UNIT	QUANT	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>						
5,18	<b>SABS 1200L</b>	<b><u>PRESSURE PIPES</u></b>				
	8.2.1	Supply, lay, bed and test the following pressure pipes:				
		a) 700mm GRP SN5000 Class 12.5	m	520		
		<b><u>Pipeline markers</u></b>				
		Construct and install concrete pipeline markers as per drawing DWG-N3110/RWW/11/004	no	5		
5,19	<b>SABS 1200L</b>	<b><u>MISCELLANEOUS</u></b>				
	8.2.11	<b><u>Concrete thrust block configuration</u></b>				
		a) Concrete volume 0.25 - 0.5 m <sup>3</sup>	no	2		
5,20		b) Concrete volume 0.5 - 1.0 m <sup>3</sup>	no	5		
5,21		c) Concrete volume 1,0 - 1.5 m <sup>3</sup>	no	2		
5,22	<b>PSL 4.3</b>	<b><u>Reinstate road surface</u></b>				
		Reinstate road surface as per detail drawing				
		a) Cut and remove existing gravel layer in windrow and stockpile	m <sup>3</sup>	6		
5,23		b) Reinstate existing gravel layers to original state (98% MOD AASHTO)	m <sup>3</sup>	6		
5,24	<b>SABS 1200L</b>	<b><u>HDPE PIPES</u></b>				
	8.2.1	Supply, lay, bed and test the following HDPE pipes:				
		a) 900mm dia. HDPE Pipe PE 100 PN12.5 ( Road Crossing Sleeve	m	3		
4,5	<b>SABS 1200L</b>	<b><u>STEEL PIPES and FITTINGS</u></b>				
	<b>PSL 4.1</b>	Fabrication, supply, transport and install and test the following pipe fittings. All items to be approved by Engineer prior to ordering.				
	<b>PSL 4.1</b>	<b><u>80mmØ DOUBLE ACTING AIR VALVE CHAMBER ON 700mmØ GRP</u></b>				
		a) Item 2.1: 700mm dia. flange adaptor.	no	2		
		b) Item 2.2: 700mm dia. flanged MS equal tee-piece	no	1		
		c) Item 2.3: 700 x 400mm dia. flanged MS concentric reducer	no	1		
		d) Item 2.4: 400mm x 200mm dia. flanged MS concentric reducer.	no	1		
		e) Item 2.5: 80mm Ø MS pipe with one side flanged and the other side a 200mm x 80mm Reducing Flange	no	1		
		f) Item 2.6: 80mm dia. flanged RSV gate valve	no	1		
		g) Item 2.7: 80mm dia. flanged MS pipe piece	no	1		
		h) Item 2.8: 80mm dia. Double acting airvalve with anti shock mechanism, Flanged	no	1		
		i) GMS Gooseneck vent pipe for all structures	no	1		
	<b>PSL 4.1</b>	<b><u>100mmØ DOUBLE ACTING AIR VALVE CHAMBER ON 700mmØ GRP</u></b>				
		a) Item 3.1: 700mm dia. flange adaptor.	no	2		
		b) Item 3.2: 700mm dia. flanged MS equal tee-piece	no	1		
		c) Item 3.3: 700 x 400mm dia. flanged MS concentric reducer	no	1		
		d) Item 3.4: 400 x 200mm dia. flanged MS concentric reducer	no	1		
		e) Item 3.5: 100mm Ø MS pipe with one side flanged and the other side a 200mm x 100mm Reducing Flange	no	1		
		f) Item 3.6: 100mm dia. flanged RSV gate valve	no	1		
		g) Item 3.7: 100mm dia. flanged MS pipe piece	no	1		
<b>TOTAL CARRIED FORWARD</b>						

ITEM NO.	REF	DESCRIPTION	UNIT	QUANT	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
4,21	PSL 4.1	h) Item 3.8: 100mm dia. Double acting airvalve with anti shock mechanism, Flanged	no	1		
4,22		i) GMS Gooseneck vent pipe for all structures	no	1		
4,23		<b>150mmØ DOUBLE ACTING AIR VALVE CHAMBER ON 700mmØ GRP</b> a) Item 5.1: 700mm dia. flange adaptor.	no	1		
4,24		b) Item 5.2: 700mm dia. flanged MS equal tee-piece	no	1		
4,25		c) Item 5.3: 700 x 400mm dia. flanged MS concentric reducer	no	1		
4,26		d) Item 5.4: 400 x 200mm dia. flanged MS concentric reducer	no	1		
4,27		e) Item 5.5: 150mm dia. MS pipe with one side flaged and the other side a 200mm x 150mm Reducing Flange	no	1		
4,28		f) Item 5.6: 150mm dia. flanged RSV gate valve	no	1		
4,29		g) Item 5.7: 150mm dia. MS pipe piece flanged	no	1		
4,3		h) Item 5.8: 150mm dia. Double acting airvalve with anti shock mechanism, Flanged	no	1		
4,31		i) GMS Gooseneck vent pipe for all structures	no	1		
4,32		<b>200mmØ DOUBLE ACTING AIR VALVE CHAMBER ON 700mmØ GRP</b> a) Item 6.1: 700mm dia. flange adaptor.	no	1		
4,33		b) Item 6.2: 700mm dia. flanged MS equal tee-piece	no	1		
4,34		c) Item 6.3: 700 x 400mm dia. flanged MS concentric reducer	no	1		
4,35		d) Item 6.4: 400 x 200mm dia. flanged MS concentric reducer	no	1		
4,36		e) Item 6.5: 200mm dia. MS pipe with one side flaged and the other side a 200mm x 150mm Reducing Flange	no	1		
4,37		f) Item 6.6: 200mm dia. flanged RSV gate valve	no	1		
4,38		g) Item 6.7: 200mm dia. MS pipe piece flanged	no	1		
4,39		h) Item 6.8: 200mm dia. Double acting with anti shock mechanism, Flanged	no	1		
4,4		i) GMS Gooseneck vent pipe for all structures	no	1		
4,41		<b>200mm Ø PIP LINE SCOUR ASSEMBLY ON 700mm PIPELINE. Class 20</b> a) Item SC 11.1: 700 x 200mm dia. flanged MS reducing tee-piece	no	1		
4,42		b) Item SC 11.2: 700mm dia. flanged MS pipe piece, with position of puddle flange as indicated. 985mm	no	1		
4,43		c) Item SC 11.3: 700mm dia. flange adaptor.	no	1		
4,44		d) Item SC 11.4: 200mm dia. RSV Gate Valve.	no	1		
4,45		e) Item SC 11.5: 200mm dia. flange adaptor.	no	1		
4,46		f) Item SC 11.6: 200mm dia. MS pipe piece, flanged one end, with other end suitable for flange adaptor. position of puddle flange as indicated. 910mm	no	1		
4,47		g) Item SC 11.7: 200mm dia. flanged MS pipe piece. 1040mm Long	no	1		
4,48		h) Item SC 11.8: 200mm dia. MS puddle pipe piece, flanged one end and the other end plain ended. Position of puddle flange as indicated. 620mm	no	1		
4,49		i) GMS Gooseneck vent pipe for all structures	no	1		
TOTAL CARRIED FORWARD						

ITEM NO.	REF	DESCRIPTION	UNIT	QUANT	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>						
4,5	PSL 4.1	<b><u>700ND Flanged Long radius GRP bends FBE and Drilled SABS 1123.</u></b>				
		a) From 3 degrees to 6 degrees	no	1		
4,51		b) From 6 degrees to 9 degrees	no	1		
4,52		c) From 9 degrees to 12 degrees	no	1		
4,53		d) From 12 degrees to 15 degrees	no	1		
4,54		e) From 15 degrees to 18 degrees	no	1		
4,55		f) From 18 degrees to 21 degrees	no	1		
4,56		g) From 21 degrees to 24 degrees	no	1		
4,57		h) From 24 degrees to 27 degrees	no	1		
4,58		i) From 27 degrees to 30 degrees	no	1		
4,59		j) From 30 degrees to 33 degrees	no	1		
4,6	PSL 4.1	<b><u>Fabrication, supply, transport and install and test the following MS</u></b>				
		b) For 700mm pipe fittings (table 1600/3)	no	11		
<b>TOTAL SCHEDULE 5 CARRIED FORWARD TO SUMMARY</b>						

## SCOPE OF WORK

### PSL **SABS 1200 L: MEDIUM PRESSURE PIPELINE**

#### PSL 1 **SCOPE**

All water pipelines in this contract shall be deemed to be medium pressure pipelines.

#### PSL 2 **MATERIALS**

##### PSL 2.1 **General (Sub-clause 3.1)**

*Add the following to the sub-clause:*

##### **Pipes**

All pipes shall be of class as indicated on the drawings. The corrosion protection to the flanged steel pipe material shall be either Epoxy Coated or Hot dipped galvanized to SABS specifications

##### PSL 2.2 **Isolating valves (Sub-clause 3.10)**

*Add the following to the sub-clause:*

Except where otherwise specified, isolating valves shall be of the resilient seal gate type, with a non-rising spindle and shall be arranged for clockwise closing. All valves shall be standard coated and shall receive a final coat of light blue enamel paint after installation. All valves shall be flanged and drilled to the specification.

Materials shall comply to the following specifications: *Materials of*

<i>Construction (minimum specifications) Component</i>	<i>Specification</i>
Body	Cast Iron to BS 1452 Gr 14
Bonnet	Cast Iron to BS 1452 Gr 14
Spindle seal housing	Cast Iron to BS 1452 Gr 14
Hand wheel	Cast Iron to BS 1452 Gr 14
Cap top	Cast Iron to BS 1452 Gr 14
Gate	Spheroidal Graphite Iron to BS 2789 Gr 17
covered with nit rile rubber	
Spindle	EN57 Stainless Steel
Spindle seal "O" rings	Nit rile rubber
Seal housing "O" rings	Nit rile rubber
Seal bush "O" rings	Nit rile rubber
Wiper ring	Nit rile rubber
Seal housing	Nylon
Spindle nut	Bronze to SABS 200 Code 30

A copy of the relevant valve specification of the proposed valves shall be attached to this tender document.

**PSL 2.2.1      Marking of valves**

The design pressure in Megapascal (MPa) shall be engraved on the side of the valve where it is legible. Valves shall be marked with the item number of the schedules when delivered to site.

**PSL 2.2.2      Handwheels and closure**

Where handwheels are specified edges shall be machined to a smooth surface. Wording "OPEN" and "CLOSE" will be casted into handwheels. Valves will close clockwise except where it is otherwise specified. Spindles will be of the non-rising type.

**PSL 2.2.4      Protection of valves**

Valves shall be painted externally with a zinc chromate primer according to SABS 679 Type 1. (Dry film thickness of 50 mnc) After installation damaged primer shall be made good with compatible primer in accordance with valve suppliers specifications.

Subsequently to making good of the primer the valve shall be painted with two layers of alkide based enamel according to SABS 630 Grade 1 (dry film thickness of 250 micro meter per layer) to match the colour of adjoining pipe work.

**PSL 2.2.5      Handling, delivery and installation**

All valves and related items shall be handled with the necessary care throughout all processes of manufacture, testing, delivery and installation. Valves furnished with lifting eyes shall be handled only by those eyes and other valves shall be handled solely with slings that will cause no damage.

In particular the inlet and escape orifices of air valves and special valves shall be effectively sealed after manufacture until completion of installation and this sealing shall be examined regularly to ensure that it is still effective.

Valves shall be effectively supported, packed or fastened down for transporting and care taken to avoid valves knocking together during transport.

Valves shall be stored in a safe place above ground and shall be protected against the ingress of foreign matter.

**PSL 2.3              Fittings (Sub-clause 3.12)**

*Add the following sub-clause:*

Generally all special fittings are to be manufactured in mild steel as applicable. No aluminum fitting shall be permitted. Fittings shall be compatible in respect of working and test pressure to those of the pipelines.

## **PSL 3                CONSTRUCTION**

### **PSL 3.1            Laying Depths and Cover (Sub-clause 5.1.4)**

*Add the following to sub-clause 5.1.4.1:*

Water mains shall be laid to follow the grades of the existing adjoining roads, except where otherwise instructed by the Engineer. The depth from finished sidewalk level to the top of the pipe barrel shall be as follows, except where otherwise directed:

- a)      on sidewalks = 900 mm
- b)      below carriageways = 1 000 mm
- c)      outside road reserves = 900 mm

### **PSL 3.2            Anchor / thrust blocks and pedestals (Sub-clause 5.5)**

*Add the following to the sub-clause:*

Dimensions of all anchor / thrust blocks shall be supplied by the Engineer as and when required. The Contractor shall request such information not less than 14 seven calendar days in advance.

### **PSL 3.3            Crossing existing services (Sub-clause 5.1.4.3)**

There will be existing services that will be crossed. Generally these areas can be identified and careful hand excavation will be required to expose these services.

### **PSL 3.4            Pipe laying personnel (Sub-clause 5.1.1)**

The laying of pipes and ancillary fittings shall be performed only by a qualified person who is registered as an artisan in the pipe fitting or drain laying trades, or is qualified by reason of having attended and passed the course on pipe laying of the Civil Engineering Industry Training Board.

### **PSL 3.5            Steel pipes, specials and fittings scope**

This specification covers the manufacture, corrosion protection, delivery, erection, installation, making good of corrosion protection as well as over-coating as may be required, site-testing and commissioning of steel pipes, specials and fittings mostly for the conveyance of water, but also for air, at normal ambient temperatures between 5°C and +70°C.

#### **PSL 3.5.1          Manufacture of steel pipes**

Steel pipes with normal bore up to 150mm diameter shall be manufactured to conform to all the requirements of SABS 62 whereas steel piping of larger diameter shall be manufactured to conform to all the requirements of SABS 719, all as may be amplified or amended below.

The requirements regarding pipe sizes and grades, wall thicknesses, pipe lengths and pipe and requirements are specified in the Pipe Schedule and / or stated in the Schedule of Quantities.

The following minimum wall thicknesses shall apply:

External Diameter (mm)	Minimum wall thickness (mm)
168 – 406	4,5mm
419 – 508	5,9mm
570 – 864	6,0mm

With regard to Sub-clause 4.2.2.1 in SABS 719 the Contractor shall, before commencing with pipe manufacture, satisfy the Engineer that the welding methods to be used in the pipe manufacture are adequate by:

- a. The preparation of a weld sample employing precisely the same welding process, equipment and artisans by which the pipe shall be manufactured.
- b. The preparation and destructive testing of the sample in (a) above, as laid down in Clause 7.2 of SABS 719.

The results of the tests on the test pieces shall comply with the requirements of Clause 7.2 of SABS 719 in all aspects.

Such destructive testing shall be carried out for each grade of steel and for each thickness of steel in that grade.

With regard to sub-clause 4.2.2.2 and 4.2.2.3 in SABS 719 the height of the inner weld reinforcement shall not exceed 1mm.

### **PSL 3.5.2      Manufacture of pipe specials**

Only pipe conforming to the requirements of Clause PSL 3.5.1 above, may be used for the manufacture of pipe specials.

For pipes of nominal bore, up to 150mm diameter T-pieces shall be heavy class pipe only, with the same wall thickness for both main and branch pipes. The manufacturing process and quality requirements are as specified in the relevant section of BS 806 (Section 3).

Dimensions and joint types for pipes specials are specified in the Pipe Schedule and / or stated in the Schedule of Quantities.

Welding shall be done by a welder holding a valid competence certificate (Grade 1) in terms of SABS 044 – Part V. Butt-welded joints shall conform to the requirements for welding for pipes, and the Contractor shall prove all butt and fillet welded joints to be crack-free by carrying out dye penetrant tests, following the procedure laid down in BS 4416.

If at all practicable, pipe specials shall be subjected to hydraulic pressure tests as specified. Where this is not feasible, butt-welds must be subjected to radiographic inspection over their full length, with inspection procedure and acceptability limits for defects as specified in API 1104, keeping a record of all weld inspection and repair.



Where working pressures allow the use of malleable cast iron fittings for nominal bore up to 150mm diameter, these shall conform to the requirements of SABS 509.

### **PSL 3.5.3     Pipe flanges, bolts and jointing**

#### **PSL 3.5.3.1     Material and dimensions for flanges**

The requirements for the materials and dimensions for flanges are in all respects as specified in SABS 1123.

A raised joint face shall be provided on all flanges of pressure rating higher than 2,5 MPa unless otherwise agreed to by the Engineer or as stated in the Schedule of Quantities, and the backs of cast or forged flanges shall be machined.

The machined surfaces of flanges shall be covered immediately after machining by a temporary rust preventative film of a suitable type as specified in BS 1133 (Section 6).

All flanges shall be drilled to SABS 1123 (Table 1600/3) or otherwise to the class as stated in the Schedule of Quantities or on drawings.

#### **PSL 3.5.3.2     Welding on of flanges**

The procedure for the welding-on of flanges, shall comply with the requirements of BS 806 (Section 3).

The proficiency of the welder and the quality requirements for the weld are the same as those specified in Clause PSL 3.6.3 above.

As a rule, the bolt holes in flanges for pipe specials shall not be on the vertical centre line.

When so specified in the Schedule of Quantities, flanged pipes shall be hydraulically tested after the welding-on of the flanges to a test pressure of 1,5 times the pressure rating of the respective flange.

### **PSL 3.5.4     Bolts**

Materials and dimensional requirements of bolts and nuts are specified in SABS 135 or 136. These requirements shall correspondingly be prescribed by the Contractor when ordering.

The threaded length shall be adequate to allow two full threads to protrude beyond the nut after the latter is fully tightened.

Each bolt shall be fitted with a nut and steel washer and bolts, nuts and washers shall be cadmium plated in accordance with and to a thickness specified for Class A in BS 1706.

Unless otherwise indicated in the Pipe Schedule, the number of bolts to be supplied shall be determined on the basis that each flange is to be supplied with half the number of bolts required for that flange.

### **PSL 3.5.5      Jointing**

Gaskets for flanges shall be recommended by the Contractor's supplier and shall be submitted to the Employer's Agent for approval.

### **PSL 3.5.6      Pipe joints and coupling other than flanges**

Pipe ends shall be prepared for the type of jointing and coupling as specified in the pipe schedule and / or stated in the Schedule of Quantities with the requirements for and preparations as specified in SABS 62 and 719 as applicable.

Standard couplings and flange adapters shall be of the Viking Johnson type or equivalent and all loose bolts with nuts and washers shall be cadmium plated in accordance with and to a thickness specified for Class A in BS 1706 and shall be lined and coated as specified in Clause PSL 3.6.8 below.

### **PSL 3.5.7      Lining and coating of steel pipes, specials and fittings**

All pipes, specials and fittings, including couplings and flange adapters, shall be fully lined and coated by fusion bonded epoxy on the outside and liquid epoxy on the inside with a minimum of three coats to a minimum total dry film thickness of 400 micrometres on a steel surface that has been prepared by sandblasting to Grade SA 2.5 as specified in SIS 055900, with a delay of not more than four hours between sandblasting and the application of the first paint coat.

Successive paint coats shall be of different colours, and the colour of the final coat shall be approved by the Engineer prior to painting. Over-coating time between the applications of successive coats shall not exceed 24 hours.

The epoxy product and process shall be presented to the engineer prior to the ordering of any pipe fittings applicable.

The coating and lining applied shall be as per the Standard Specification DWS 9900 Section C1 unless specified otherwise in the text above. The Specification is attached under C5 Annexures.

#### Tape wrapping

All underground steel pipes joints (flanged, flexible coupling, etc.) shall be tape wrapped in accordance with this specification. No additional payment shall be made as the rate for the coupling shall include for the tape wrapping.

#### External steel pipe coating and wrapping specification:

A Denso Corroklad 750 tape or equivalent should be applied to the external surface of the steel pipeline.

The tape consists essentially of a specially formulated polyethylene film laminated to a pressure sensitive, non-hardening thermoplastic adhesive. The adhesive layer is generally one and a half times thicker than the polyethylene film.

The composite wrapping system provides a durable impact and cut resistant rockshiled for normal and rugged service conditions.

### Technical Data

The following information pertains to the Corroklad 750 tape:

- The base layer is made of polyethylene and is 0,3mm thick.
- The adhesive layer consists of rubber modified bitumen and is 0,45mm thick.
- The product thickness is 0,75mm.
- The tape has a minimum tensile strength of 15 MPa.
- The minimum elongation at failure is 300%.
- The adhesive and peel strength of the tape at 25°C is 2,2N/mm and 1,65N/mm respectively.
- The minimum dielectric strength of the tape is 25 KV.
- Cathodic disbondment by ASTM G8 Method B is 425mm<sup>2</sup>.
- The service temperature of the tape is –10°C to 65°C.

### Application Procedure

Corroklad tape can be successfully wrapped by hand (maximum tape width 100mm) and by machine. The general application is detailed below.

### Surface Preparation

- All dirt, loose rust/mill scale and grease must be removed from the pipe surface.
- The minimum surface preparation acceptable for tape wrapping with Corroklad is ST2 (Swedish Standard SIS 055900-1967, Mechanical wirebrushing).

### Priming the Pipe Surface

- The primer to be used is Denso Primer D or equivalent Polymer Bitumen Solution, and is to be applied by means of a medium pressure cop gun.
- The primer may be thinned for application with white spirits or toluene.
- The primer should nominally cover 9m<sup>2</sup> liter.
- The minimum drying period at 20°C is 20 minutes.
- The flash point occurs above 23°C.
- If the pipes are prepared and primed off site, it may be necessary to apply a second coat of primer on site in order to rejuvenate the first application. This is only required if the pipe is being wrapped on site.
- The primer should be dust free prior to the application of the tape wrap system. Should the primer be contaminated, the surface must be reprimed.
- The primer should be allowed to dry for approximately 30 minutes at 20°C to 25°C prior to the application of the tape system.

### Tape Application

- The Corroklad tape or equivalent should be spirally wrapped onto the primed pipe, utilising a 55% overlap.

55% Overlap will ensure a minimum of two layers of tape at any point.

- Ensure that a constant web tension of 10 to 15kg/100mm is maintained during wrapping.
- At no time is the shrinkage of the total width of tape to exceed 2%.

### Pipe Handling

- Non-metallic slings are to be utilised when handling the wrapped pipe sections or pipe, in order to ensure that no mechanical damage occurs to the tape.

**PSL 3.5.8      Making good and over-coating of steel pipes, specials and fittings**

**PSL 3.5.8.1      Steel pipes, specials and fittings**

After erection, all damage to the Epoxy coatings or Linings, shall be made good strictly in accordance with The DWS 9900 Specification which is attached under C5 Annexures.

**PSL 3.5.8.2      Handling, delivery and installation**

All pipes, pipe specials and fittings shall be handled throughout the processes of manufacturing, corrosion protection, delivery and installation with all care necessary to prevent any damage.

After the corrosion protection of the outside of pipes and specials has been carried out, these items must be handled only by means of straps that will in no way damage the protection.

After completion of corrosion protection at the place of manufacture, all pipe ends shall be effectively closed off by at least a sheet of plastic held fast to the pipe and by binding wire.

This seal shall be checked specifically during delivery and after off-loading on site to confirm that it is still fully effective and shall immediately be repaired or replaced if damaged. Should there be the slightest danger of the ingress of foreign matter into the pipework during installation, the ends shall be kept sealed off all the time.

Pipes shall be supported during travelling on shaped and padded cradles while pipe specials shall be adequately supported and separated from each other to prevent any damage.

Steel pipes will only be offloaded with the aid of a spreader boom of 6m length to spread the point load and minimize the deflection in the pipe.

At the delivery points on site, pipes, pipe specials and fittings shall be supported by plastic sandbags of sufficient strength, such that the under sides of the pipes and pipe specials are at least 200mm off the ground. The number and positioning of supports under the pipes, shall be such as to prevent any undue pipe deflection.

Bolts, nuts, washers and jointing, shall be packed in strong metal or wooden containers with effective lids, with each different sizes of bolts grouped separately in hessian bags all clearly labelled as to their contents.

Pipe work shall be securely clamped in its final position by means of galvanised fittings.

**PSL 3.6      Flexible couplings at structures**

Flexible couplings shall be provided at the point where pipelines enter all structures.

**PSL 3.7      Valves (Sub-clause 3.10)**

**PSL 3.7.1      Scope**

This specification covers the requirements for material, manufacture, delivery, installation, over-coating as may be required, site-testing and commissioning for gate valves for use in pipe work, mainly for the delivery of raw and purified water, but also for air supply, at ambient temperatures up to 70°C.

**PSL 3.7.2      Break into concrete chamber**

The Contractor shall break into and connect up to the existing raw water chamber at the Loskop Dam irrigation canal take-off after all the work on the water main has been completed and tested. The Contractor shall arrange in co-operation with the Department of Water and Sanitation for the emptying of pipes and canal, excavations, etc. complete as required for the connection.

**PSL 3.8      Testing of pipelines (Sub-clause 7.3)**

**PSL 3.8.1      Test pressure (Sub-clause 7.3.1(a))**

*Replace the Sub-clause 7.3.1 with the following:*

All pipes shall be tested at 1.25 the working pressure at the specific point where the pressure test be executed. The Contractor shall identify the points on the pipeline where the hydrostatic pressure test be executed and shall notify the Engineer in advance in order for the Engineer to be able to furnish the Contractor with the required test pressure at the specific test point.

**PSL 3.8.2      Method of testing (Sub-clause 7.3.1(b))**

*Add the following new clauses:*

- a) The Contractor shall provide an approved test pump, an accurate water meter, sealed pressure gauge, tested and certified by an independent testing organisation, and all other equipment, materials and labour required for the test.
- b) The section of pipeline to be tested shall be clean and closed off at the ends by isolating valves, end caps or approved end-closure pieces
- c) During the initial filling stage, the pipe section joints and all specials, fittings and valves shall be visually inspected for visible leaks and same rectified before proceeding with the test.
- d) The pressure shall be maintained for one hour and if a pressure drop occurs, more water shall be added to reinstate the test pressure and the valve closed again. The quantity of water added shall be measured by recording the readings before and after pumping. This procedure shall be repeated for a period of 24 hours, with water added at hourly intervals where necessary to reinstate pressure and water meter reading recorded. At the end of the 24 hour period, the aggregate quantity of water required to reinstate pressure over 24 hours shall be determined.
- e) The Contractor shall give the Engineer 48 hours written notice of his intention to commence pressure testing and the Engineer may attend and supervise all or any part of tests. All records and recording charts shall be handed to the Engineer as soon as tests over any section have been completed.
- f) All valves, specials, fittings and exposed joints, shall be inspected visually during the 24 hours pipeline test and all visible signs of leaks, sweating and distress shall be reported and attended to without delay.

- g) Immediately after completion of the prescribed 24 hours hydrostatic test, all air valves shall be tested in turn before test pressure in the pipeline is released. Each air valve shall be isolated and the drain plug removed. The air valve shall work freely without restraint. The isolating valve shall be checked for leakage before replacing the plug. Finally, the automatic resealing of the air valves shall be checked by re-opening the isolating valve.
- h) After completion of tests on air valves, the section of pipeline under test shall be completely refilled with water, if necessary, and pressured to the static head shown on the drawings or indicated by the Engineer. Each scour valve shall be checked by opening isolating valves where applicable for a duration sufficient to check the complete opening and closing cycles. If necessary, the pipeline shall be refilled after each individual test and re-pressurised to the prescribed static pipeline head in order to test all scours within the section under test.

**PSL 3.8.3 Remedial measures (Sub-clause 7.3.1 (c))**

*Add the following new clauses:*

- a) Should the maximum leakage limits as specified be exceeded, the Contractor shall determine the position and cause of the leaks and shall take remedial measures at his own expense and to the satisfaction of the Engineer to stop such leaks and ensure the specified degree of water tightness.
- b) If during the contract period of maintenance, the number of leaks and other defects is considered by the Engineer to be more than could reasonably be expected from a well laid pipeline operating under normal conditions, he may order the Contractor to re-test parts or the whole of the pipeline at the Contractor's own expense and no claims for escalation in costs or for whatever other reasons the Contractor might consider to submit claims shall be considered, except where such re-tests are the result from damages caused to the pipeline by the Employer."

**PSL 3.9 Concrete work (Sub-clause 5.13)**

*Add sub-clause 5.13 as follows:*

**PSL 3.9.1 Encased pipe work**

- a) Where pipes and / or specials are permanently encased in concrete, e.g. in thrust blocks, walls of concrete valve chambers, stream crossings, etc., the coating over the portion to be so encased shall be to the same standard as the rest of the pipeline, except where indicated to the contrary in the Schedule of Quantities or on the drawings.
- b) Whenever it is necessary to encase pipes in concrete, the flexible joints shall not be encased and the concrete shall terminate 300 mm from the flexible joint.
- c) All specials encased in concrete shall be painted with one coat of bitumen primer and two coats of bit mastic paint to a dry film thickness of 180 micrometers.

**PSL 3.9.2      Brickwork (Sub-clause 5.14)**

*Add sub-clause 5.14 as follows:*

- a)      Brickwork is to be built to the dimensions, thicknesses and heights as shown on the drawings.
- b)      All exposed brickwork shall be plastered and shall have joints raked out to a depth of 12 mm to ensure good plaster bond.
- c)      Mortar shall consist of one part cement to four parts approved sand by volume and shall be used within one hour of mixing.
- d)      Brickwork shall be built in stretcher bond and all common bricks shall be well wetted before being laid.

**PSL 4              MEASUREMENT AND PAYMENT**

**PSL 4.1          Steel specials and fittings (sub-clause 8.2.1)**

*Add the following clause to the payment item:*

The rate shall also cover the cost of the coating and lining as specified in this contract as well as repairing or making good damaged coatings and linings on site.

**PSL 4.2          Steel specials and fittings (sub-clause 8.2.2)**

*Add the following payment item:*

**Item:**

Fabrication, supply, transport and install and test the following pipe fittings. All items to be approved by Engineer prior to ordering.

Unit: number (no)

The unit of measurement for payment for the manufacture, corrosion protection and final over- coating as may be required, delivery, installation of pipes, site-testing and commissioning of pipes, pipe specials and fittings conforming with this Specification shall be measured by number for each type, class and size as stated in the Schedule of Quantities.

The rates tendered and paid for valves and fittings must include the cost of the provision of an approved coating and the cost of any additional couplings other than those listed in the Schedule of Quantities to connect to the water mains.

All adapters and distance pieces required for the extension to the specified level and length as shown on the drawings for air and scour valves must be included in the rates for the units. All underground pipe fittings shall be wrapped in an approved isolating material as specified in PSL 3.5.7

The cost of providing couplings, cutting pieces, etc. shall be allowed for in the rate tendered for pipe work.

**PSL 4.3      Reinstate Road Surface**

*Add the following payment item:*

**Item:**

Reinstate road surface as per detail drawings:

- b)      Cut and remove existing gravel layer in windrow and stockpile

Unit: m<sup>3</sup> Unit: m<sup>3</sup>

- c)      Reinstate existing gravel layers to original state (98% MAMDD)

The above item covers the complete repair of the road surface where the pipeline trench exaction is required over an existing gravel or surfaced road. The rate shall cover all materials, plant, watering, stabilizing, labour and tests to repair the road surface and related layer works back to its original state.



**PSLB            SABS 1200 LB: BEDDING (PIPES)**

**PSLB 1        MATERIALS**

**PSLB 1.1     Selected granular material (Sub clause 3.1)**

*Add the following to this sub-clause:*

Granular materials shall be selected from trench and reservoir excavations. If the contractor elects not to apply selection of material from excavations, he shall provide suitable material from any other approved source at his own expense.

Bedding material shall be either of the following type:

a) Type A : Finally graded, composed of material with the following properties:

- i)            Percentage by mass passing:  
              4,75 mm screen - 100 %  
0,425 mm screen - 80 to 100 %  
0,002 mm screen - 0 to 45 %
- ii)           Liquid limit (LL) as determined in accordance with SABS Method 852 shall not be more than 15, when performed on all the material passing the 0,425 mm sieve.
- iii)           Plasticity index (PI) as determined in accordance with SABS Method 852 shall not be more than 15, when performed on all the material passing the 0,425 mm sieve.
- iv)           Linear shrinkage (LS) as determined in accordance with SABS Method 853 shall not exceed 5 %, when performed on all the material passing the 0,425 mm sieve.

b) Type B : Medium graded, composed of material with the following properties:

- i)            Percentage by mass passing:  
              4,75 mm screen - 80 to 100 %  
              0,425 mm screen - 60 to 80 %  
              0,002 mm screen - 0 to 40 %
- ii)           Liquid limit (LL) as determined in accordance with SABS Method 852 shall not be more than 35 %, when performed on all the material passing the 0,425 mm sieve.
- iii)           Plasticity index (PI) as determined in accordance with SABS Method 852 shall not be more than 18, when performed on all the material passing the 0,425 mm sieve.

- iv) Linear shrinkage (LS) as determined in accordance with SABS Method 853 shall not exceed 7 %, when performed on all the material passing the 0,425 mm sieve.
- c) Type C : Granular, composed of material with the following properties:
- i) Percentage by mass passing:  
*9,5 mm screen - 100 %*  
*4,75 mm screen - 70 to 100 %*  
*0,425 mm screen - 30 to 60 %*  
*0,002 mm screen - 0 to 45 %*
- ii) Liquid limit (LL) as determined in accordance with SABS Method 852 shall not be more than 40 %, when performed on all the material passing the 0,425 mm sieve.
- iii) Plasticity index (PI) as determined in accordance with SABS Method 852 shall not be more than 20, when performed on all the material passing the 0,425 mm sieve.
- iv) Linear shrinkage (LS) as determined in accordance with SABS Method 853 shall not exceed 10 %, when performed on all the material passing the 0,425 mm sieve.

Items a), b) and c) are conveniently summarised in the following table:

Material	PERCENTAGE BY MASS PASSING SCREENS				ATTERBERG LIMITS SHALL NOT EXCEED		
	9,5 mm	4,75 mm	0,425 mm	0,002 mm	Liquid Limit (LL) %	Plasticity Index (PI)	Linear Shrinkage (LS) %
Finely graded / A	100	100	80 - 100	0 - 45	30	15	5
Medium graded / B	100	80 - 100	60 - 80	0 - 40	35	18	7,5
Granular / C	100	70 - 100	30 - 60	0 - 35	40	20	10

## PSLB 1.2 Bedding (Sub-clause 3.3)

Add the following to this sub-clause:

All steel pipes in the works shall be classed as "rigid" with flanged joints and shall be bedded on Class C bedding as described in sub-clause 5.2 of SABS 1200 LB, unless otherwise specified or instructed by the Engineer.

## PSLB 1.3 Backfilling of pipe trenches (Sub-clause 3.5)

Add sub-clause 3.5 as follows:

No backfilling of pipe trenches on top of the selected fill layer may commence without the written consent of the Engineer or his Representative.

**PSLB 2            CONSTRUCTION**

**PSLB 2.1        Waterlogged trench bottoms (Sub-clause 5.5)**

*Add sub-clause 5.5 as follows:*

- a)            Where trench bottoms are too soft and water logged to permit placement and compaction of bedding material in the normal manner, such trench bottoms shall be excavated to a depth of at least 300 mm below the underside of pipes and specials for the full width and length of the trench affected.
  
- b)            The full width and length of the trench bottom and at least 500 mm height of both sides of trench walls shall be covered by an unwoven approved geotextile, similar to Kaymat U24.

The full width and length of the trench shall thereupon be covered by a 300 mm thick layer of coarse gravel, coarse sand or 19 mm nominal size crushed stone, fully compacted within the confines of the geotextile to take the mass of the pipe filled with water and all loads on the pipe without settlement.

The free drainage layer shall be covered over the full width of the trench by a single layer of geotextile with the cloth on trench walls folded over and overlapping to completely seal off the free drainage layer against ingress of sand or fine soil particle.

Pipes shall be laid directly on the bed prepared as above and pipe bedding and selected backfill completed as specified.