

**CONTRACT NUMBER: MIS 540 115 D** 

# DESCRIPTION: MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI

#### **CONTRACT 4**

#### **AUGUST 2025**

NAME OF BIDDER:	
BID AMOUNT:	
CSD SUPPLIER NUMBER:	
CLOSING DATE & TIME:	19 September 2025 @ 12pm

#### Prepared for:

The Municipal Manager
O. R. Tambo District Municipality
Private Bag X6043
MTHATHA
5099

Tel. No. (047) 501 6400

#### Prepared by:

The Infrastructure Water and Sanitation Services
O. R. Tambo District Municipality
Private Bag X6043
MTHATHA
5099

Tel. No. (047) 501 6425

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PLEASE CHECK	x / \
That you have read all the pages of the bid document.	
That you have completed ALL the forms required to be completed in NON-ERASEABLE INK.	
That your arithmetic calculation in the pricing schedule is correct.	
<ul> <li>That you have attached ALL necessary documentation relating to composition of the bidding entity, i.e.</li> <li>Company registration documents naming the shareholder company, close corporation etc.</li> <li>Joint venture agreement if bidding entity is a joint venture.</li> </ul>	ers and Directors / members of the
That the COMPLETE bid document is submitted.	
That the FORM OF OFFER is completed in full and signed.	
That ALL returnable documents are completed and signed.	
Ensure that your bid is submitted by 12H00PM on the closing date	of the bid.

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APPENDIX A Locality Layout
APPENDIX B Book of Drawings

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#### T1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited from suitably qualified and experienced contractors who are registered with CIDB for the Construction of the following project under the O. R. Tambo District Municipality.

Project Number	Name and Description	CIDB Grading	Bid Closing Date and Time
CONTRACT NO.: MIS 540 115 D	MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4	7CE or higher	19 September 2025 @12pm

A compulsory clarification meeting with representatives of the Employer will take place at **10H00** on **Tuesday**, **26**<sup>th</sup> **of August 2025** at the **O.R. Tambo District Municipal Offices**: Myezo, **before proceeding to site**.

The municipality will not repeat any matters already covered in the compulsory briefing meeting to the tenderers who arrive more than 10 minutes late to the meeting, nor will it allow such tenderers to complete the attendance register. Any bid received from a tenderer who did not attend the briefing meeting and sign the attendance register will not be considered.

Bid documents Must be downloaded on the O. R. Tambo District Municipality's website (<u>www.ortambodm.gov.za</u>), alternatively on the e-Tender website (www.etenders.gov.za) at no cost.

Bids must be completed in black ink, enclosed in a sealed envelope, and clearly marked with the "**Project number, project name and description**", deposited in the Open Tender Box, Ground Floor, O. R. Tambo District Municipality Building, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape, not later than **12H00pm on 19 September 2025.** 

It must be expressly understood that the Municipality does not accept responsibility for ensuring that bid submissions sent by courier or post, or delivered in any other way, are deposited in the Tender Box. It is therefore preferable for the tenderer to ensure that its bid submission is placed in the Tender Box by its own staff or representative(s).

Tender submissions will be opened in public at **12H00pm on 19 September 2025.** The Municipality reserves the right not to accept the lowest priced tender or any tender at all, or to accept the whole or part of any tender.

In terms of the O.R. Tambo District Municipality SCM Policy Section 72 and 73, the Municipality will apply Fair Distribution of Municipal Resources on Capital Infrastructure Projects, Objective criteria on the evaluation and award of bids.

#### RETURNABLE DOCUMENTS TO BE SUBMITTED WITH THE BID:

- Copy of business registration documents, as issued by CIPC.
- Certified copy of identity documents of directors/ shareholders/ partners / members, as the case maybe.
- Original Valid Tax Clearance Certificate or a Confirmation of Tax Validity with the pin issued by SARS

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# INVALID OR NON-SUBMISSION OF THE FOLLOWING RETURNABLE DOCUMENTS WILL DISQUALIFY A BID SUBMISSION:

- Complete fully the bid document or to provide the information requested, or to sign the bidat the appropriate spaces provided or next to errors.
- Fill and properly sign the form of offer
- Attach proof of registration with CSD.
- Attach audited annual financial statements of the bidding entity (for projects in excess of R10 million);
- Attach unaudited annual financial statements for close corporations and companies if the public interest score is below 350 in line with the companies act of 2008;
- Attach proof of latest municipal rates and taxes statement of the bidder and each company director and each company indicating that rates and taxes are not in arrears for more than 3 months.
- Attach proof of latest municipal water and sanitation charges statement of the bidder and each
  company director indicating that rates and taxes are not in arrears for more than 3 months for
  bidders who reside in the O. R. Tambo District Municipality area.
- Attach a confirmation of address from a ward Councillor where the bidder and company directors
  operate and reside in a peri-urban area where no rates and taxes and service charges are not
  billed.
- Attach a copy of a valid lease agreement where the bidder does not own the property they are operating from.
- Attach proof or registration with the Construction Industry Development Board (CIDB).
- Attach joint Venture Agreement or Consortium Agreement signed and initialed on each page (if applicable).
- Attach consolidated company registration documents, bank account, SARS Tax pin, CSD (for JV or Consortium)
- NOTE: Joint Ventures and Consortiums will only be considered provided they submit consolidated company registration documents and on award will be required to submit a joint venture or consortium bank account and a joint venture or consortium SARS Tax PIN.

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# EVALUATION OF BIDS IN TERMS OF THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK REGULATIONS,2022:

Bids will be evaluated in three stages, namely:

- Stage 1 Compliance with Bid Rules and other Requirements
- Stage 2 Functionality Assessment
- Stage 3 Price and Preference Points

Tenders will be evaluated in terms of the Supply Chain Management policy of the O. R. Tambo District Municipality. The lowest tender will not necessarily be accepted, and the Municipality reserves right to accept the whole or part of any tender or not to consider any tender not suitably endorsed. An **80/20-point system** shall apply **where 80 points** is allocated for price and **20 points allocated for specific goals.** 

#### OR

An **90/10-point system** shall apply **where 90 points** is allocated for price and **10 points allocated for specific goals** of contributor as follows:

The specific goals allocated points in terms of this tender	Number of points Allocated on 90/10 system	Number of points Allocated on 80/20 system
51% Black-owned enterprises	04	05
100% Women-owned enterprises	02	05
100% Youth-owned enterprises	02	05
Where the enterprise head office or primary place of business is located within O. R. Tambo District.	02	05

#### CONDITIONS OF THE TENDER WITH REGARDS TO SUB-CONTRACTING

It is a Condition of this Tender that the Successful Tenderer must Subcontract a **Minimum of 21% of the value of the Contract Sum** (Excluding CPA and Contingencies) to the Designated groups as indicated in the Tender Document

Tenders may only be submitted on tender documentation issued. No late, faxed, e-mailed, or other form of tender will be accepted.

Technical enquiries: Mr. N. Noto, telephone number 047 501 6425 or email: <a href="mailto:nkosiyabon@ortambodm.gov.za">nkosiyabon@ortambodm.gov.za</a>.

All Supply Chain Management enquiries may be directed to Mr. S. Hopa, telephone number 047 5016449 or

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Email: <a href="mailto:sakhiwoh@ortambodm.org.za">sakhiwoh@ortambodm.org.za</a> during office hours: Monday to Friday 08H00-13H00 and 13H30-16H30.

Tenderers must submit copies of all supporting documents necessary to prove conformance with Specific Goal criteria listed above in order to be eligible for Specific Goal points.

B. Mase Municipal Manager

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### T1.2: TENDER DATA

The Standard Conditions of Tender are those contained in Annexure C of the Construction Industry Development Board (CIDB) *Standard for Uniformity in Engineering and Construction Works Contracts* (August 2019) as published in Board Notice 423 of 2019, in Government Gazette No. 42622, on 08 August 2019.

The Standard Conditions of Tender Procurement make several references to the Tender Data for details that apply specifically to the Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard Conditions of Tender.

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

	t mainly applies.		
Clause	Wording / Data		
C.1.1	General		
C.1.1.1	The Employer is:	O. R. Tambo District Municipality	
		Private Bag X6043	
		Mthatha, 5099	
	Telephone:	047 501 6425	
	Email:	nkosiyabon@ortambodm.gov.za	
C.1.1.2	Tenderers shall declare any perceived, known and potential conflict of interest under Returnable		
	Documents: Declaration of	Intent of Persons in Service of State and Declaration of Tenderers Supply	
	Chain Management Praction	ces.	
C.1.2	The Tender documents iss	ued by the Employer comprise:	
	Tender		
	T1.1 Tender Notice and Invitation to Tender.		
	T1.2 Tender Data		
	T1.3 Standard Condition	s of Tender	
	T2.1 List of Returnable D	Documents	
	T2.2 Returnable Documents for Tender Evaluation Purposes		
	T2.3 Returnable Docume	ents to be Incorporated into the Contract	
	Contract		
	Part C1: Agreements and	Contract data	
	C1.1 Forms of Offer and Acceptance		
	C1.2 Contract Data		
	C1.3 Tenderer's Direct P	articipation of Targeted Labour	
	C1.4 Specification for SN	MME Sub-contractor Employment	
	C1.5 Performance Guara	antee (Pro forma)	
	C1.6 Adjudication		
	C1.7 Agreement in Term	s of the Occupational Health and Safety Act 1993 (Act 85 of 1993)	

Clause	Wording / Data		
	Part C2: Pricing Data		
	C2.1 Pricing Instructions		
	C2.2 Bill of Quantities		
	Part C3: Scope of Works		
	C3.1 Description of the Works		
	C3.2 Engineering		
	C3.3 Procurement		
	C3.4 Construction		
	C3.5 Management		
	C3.6 Health and Safety		
	C3.7 Project Specifications		
	Part C4: Site Information		
	Part C5: Tender Drawings		
	Appendices A – B.		
	Documents not issued to Tenderer's, but available from the S.A. Federation of Civil Engineering Contractors, the S.A. Institution of Civil Engineering, the S.A. Bureau of Standards, the Government printers, the Construction Industry Development Board, and the Employer, as applicable:  a) GCC2015 "General Conditions of Contract for Construction Works", Third Edition, second print, 2015 published by the South African Institute of Civil Engineering (SAICE) *Tel 011 805 5947)		
	b) S.A. National Standards SANS 1200 Standardised Specifications for Civil Engineering Construction.		
	<ul> <li>The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (November 2022).</li> </ul>		
	d) The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and Construction Regulations (2014) and COVID-19 requirements for Construction Sites.		
C1.3	Interpretation		
	The tender data and additional requirements contained in the tender schedules that are included in		
	the returnable documents are deemed to be part of these conditions of tender.		
C.1.4	Communication:		
	Attention is drawn to the fact that verbal information, given by the Employer's Agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer's Agent in writing to tenderers will be regarded as amending the Tender Documents.		
	The Employer's Agent is:		
	Name: Ziinzame Consulting Engineers		

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Wording / Data		
	Address:	25 Falcon Street	
		Southernwood	
		Mthatha, 5100	
	Contact nonce	Views a Manafalas	
	Contact person:	Vhuso Mwafuka	
	Telephone:	047 531 0269	
	Email:	vmwafuka@ziinzame.co.za	
C.2	Tenderer's obligations		
C.2.1.1	(as "Active" at the time submissions, in a contraction determined construction work, are e	o are registered with the Construction Industry Development Board (CIDB) of tender closing) or are capable of being so prior to the evaluation of ractor grading designation equal to or higher than a contractor grading in accordance with the sum tender for an <b>7CE or higher</b> class of ligible to submit a tender offer.	
	_	ible to submit a tender offer provided that: joint venture is registered (as "Active") with the CIDB (at the time of tender	
	not lower than one lev	s a contractor grading designation in the CE class of construction work and rel below the required grading designation in the class of construction works and possess the required recognition status.	
	Industry Development designation determine construction work or	actor grading designation calculated in accordance with the Construction of Board Regulations is equal to or higher than a contractor grading ned in accordance with the sum tendered for <b>7CE or higher</b> class of a value determined in accordance with Regulation 25(1B) or 25(7A) of the Development Regulations.	
	of formation of the jo witness sworn stater venture will function, the participation of	pioint ventures of two or more firms must be accompanied by the document point venture, authenticated by a notary public or other official deputed to ments, in which it defines precisely the conditions under which the joint its period of duration, the persons authorised to represent and obligate it, the several firms forming the joint venture, and any other information a full appraisal of its functioning.	
	the tendered Contra	int Venture, must submit a signed JV Agreement with the tender specific to ct and clearly showing the percentage contribution of each partner to the alue of work to be undertaken by each partner must be within their CIDB	
	Tenderers are eligible to requirements listed belo	submit a tender offer, provided they have submitted the following tender w:	
	(SARS) and must s Clearance PIN Numb	be registered and in good standing with the South African Revenue Services submit/append documentary evidence/proof in the form of a valid Tax per and/or a valid Tax Number issued by SARS. Failure to provide a valid number and/or Tax Number will result in the tender being rejected.	
	Each party to a Cons	sortium/Joint Venture shall submit a separate Tax Clearance PIN Number	

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4 Wording / Data	
- Claudo	and/or Tax Number.	
	<ul> <li>b) The tenderer is registered on the National Treasury Central Supplier Database (CSD) and provide proof of registration must be in the form of CSD registration number. Also note the following:         <ol> <li>Tenderers who are not registered are not precluded from submitting bids but must be registered prior to Contract Award.</li> </ol> </li> </ul>	
	ii. In the case of Joint Venture partnerships this requirement will apply individually to each party to the Joint Venture.	
	iii. Tenderers who wish to register as service providers on the CSD can register online at <a href="https://secure.csd.gov.za/Account/Register">https://secure.csd.gov.za/Account/Register</a> .	
	iv. For further enquiries contact the Supply Chain Management Unit on Tel: 043 707 3700.	
	c) A resolution authorizing a person to sign the bid documents (Full completion and signing of Form 2.2.2 or resolution on company letter head).	
	d) Attendance of Compulsory Site Briefing:	
	Only Tenderers who have attended the compulsory site briefing, signed the attendance register and have Form 2.2.7 Certificate of Attendance at Clarification Meeting signed by the Employer's Agent or his representative, will be eligible to submit a tender offer.	
	e) A valid CIDB registration with a minimum grading of 7CE or higher. In case of JV, the tenderer has submitted a mandatory JV agreement that includes the agreement and banking details and stipulates the JV lead partner's as well as JV partners CRS numbers are indicated on the form (proof must be attached).	
	f) A signed Form of Offer in the Contract Section C1.1.	
	g) The tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.	
	h) The Tenderer has not failed to perform on any previous contract and has not been given written notice to this effect.	
	i) Further Compulsory Documents to be submitted by the Tenderer:	
	In addition to all the documents listed from a) to k) above and all other documents requested in Section T2.1 and T2.2 (Returnable Documents), it is further required that copies of the following current and valid company certificates be provided:  i. Letter of Good Standing (Form 2.2.5) from Compensation Commissioner or Insurer in	
	terms of Section 80 of the Compensation for Occupational Injuries and Diseases (COID) Act (Act No 130 of 1993).	
	<ul><li>ii. Letter of Good Standing from Department of Labour (UIF).</li><li>iii. In the case of Joint Ventures, the above shall be provided for each JV Partner.</li></ul>	
	The above documents shall be included in the Supporting Documents file.	
C.2.3	Amend the Clause to read:	
	"and notify the Employer's Agent of any discrepancy"	

Clause	Wording / Data
C.2.6	Receipt of Addenda's: All tenderers to acknowledge receipt of any Addendums issued and to complete Form 2.3.1: RECORD OF ADDENDA TO TENDER DOCUMENTS in the Returnable Documents.
	Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender clause C.3.8.
C.2.7	For particulars regarding the compulsory clarification meeting (site inspection meeting) refer to the <b>Tender Notice and Invitation to Tender (T1.1)</b> of this document.
	The onus rests with the tenderer to ensure that the person attending the clarification meeting on his behalf is appropriately qualified to understand all directives and clarifications given at that meeting.
	Tenderers must sign the attendance register in the name of the tendering entity. Addenda will be issued to, and only tenders will be received from, those entities appearing on the attendance register.
C.2.8	The employer shall respond to clarifications received up to <b>7 working days</b> before the tender closing time.
C.2.9	The employer does not provide insurance. The contractor is responsible for providing full insurance cover for the contract.
C.2.10	Pricing the Tender Offer
	Tenderers are requested to state the rates and currencies in Rand.
	Delete the contents of Clause C.2.10.3 and replace with the following:
	"This tender is subject to Contract Price Adjustment as set out in the Contract Data. An alternative offer of fixed rates will not be accepted."
C.2.11	Add the following to the Clause:
	"In the event of a mistake having been made on the price schedule, it shall be crossed out in non- erasable ink and be accompanied by an initial of each signatory to the Tender at each and every price alteration."
	"If correction fluid has been used on any specific item price, such item will not be considered. Corrections in terms of price may not be made by means of correction fluid such as Tippex or similar product.
	No correction fluid may be used in a Price Schedule where prices are calculated to arrive at a total amount. If correction fluid has been used, the tender as a whole will be classified non-responsive and not be considered.

01	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4 Wording / Data		
Clause	Wording / Data		
	The Employer and/or Employer's Agent will reject and classify the tender non-responsive if corrections are not made in accordance with the above."		
C.2.12	Alternative Tender Offers		
	Delete the contents of Clause C.2.12 and replace with the following:		
	"No alternative offers will be accepted. This includes changes to the 'as-scheduled' allowance for Contingencies."		
C.2.13.2	Delete the contents of Clause C.2.13.2 and replace with the following:		
	"Return all returnable documents to the Employer after completing them in their entirety by writing legibly in non-erasable ink. Notwithstanding the format in which the tender documents are issued to Tenderers, no electronic form of tender offers will be accepted.		
	The Original to be submitted shall comprise:		
	<ul> <li>Tender Document, as proof of specifications tendered on and duly completed and signed.</li> </ul>		
	<ul> <li>Indexed Lever-Arch file (or files) with all supporting documentation clearly marked with</li> </ul>		
	Tenderer's name clearly marked on the spine or cover.		
	Tender Drawings (Book of Drawings) need NOT be submitted.		
	Failure to comply with these requirements may result in the tender being declared non-responsive.		
	Notwithstanding any statement in any of the Returnable Documents listed in T2 to the effect that supporting documentation must be attached to the associated Returnable Document, the supporting documentation must be placed in the supporting documentation files as stipulated above.		
	The Bill of Quantities must be fully and correctly filled in by hand in black ink.		
	The binding of the original volume of the Tender Document may NOT be dismantled.		
	Number of Duplicate Copies required is none.		
C.2.13.4	Add the following to the clause:		
	"Only authorised signatories may sign the original and all copies of the tender offer where required in terms of C.2.13.3		
	In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated.		
	In case of a <b>COMPANY</b> submitting a tender, include a copy of a <u>resolution by its board of directors</u> authorising a director or other official of the company to sign the documents on behalf of the company.		
	In the case of a <b>CLOSE CORPORATION</b> submitting a tender, include a copy of a <u>resolution by its</u> <u>members</u> authorising a member or other official of the corporation to sign the documents on each member's behalf.		

Clause	Warding / Data
Clause	Wording / Data
	In the case of a <b>PARTNERSHIP</b> submitting a tender, <u>all the partners</u> shall sign the documents, unless one partner or a group of partners has been authorised to sign on behalf of each partner, in which case <u>proof of such authorisation</u> shall be included in the Tender.
	In the case of a <b>JOINT VENTURE/CONSORTIUM</b> submitting a tender, include <u>a resolution</u> of each company of the Joint Venture together with a resolution by its members authorising a member of the Joint Venture to sign the documents on behalf of the Joint Venture.
	Failure to submit proof of authorisation to sign the tender, shall result in a Tender Offer being regarded as non-responsive."
C.2.13.5	The employer's address for delivery of tender offers is given under Clause C.2.15.1
	The identification details are:
	TENDER FOR CONTRACT: MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4
C.2.13.6	A two-envelope system will not be followed.
C.2.13.7	Place and seal the printed and completed tender document in an envelope clearly marked "TENDER" and bearing the Employer's name, the contract number and description, the tenderer's authorised representative's name, the tenderer's postal address and contact telephone numbers.
C.2.13.9	Electronic, telephonic, telegraphic, telex, facsimile or e-mailed tender offers will <b>not</b> be accepted.
C.2.14	The tenderer is required to provide all the data or information as requested below:
	<ul> <li>All the documents and schedules as listed under T2.1 &amp; T2.2: Returnable Documents required for tender evaluation purposes.</li> </ul>
	<ul> <li>All the documents and schedules as listed under T2.3: Returnable Documents that will be incorporated in the Contract.</li> </ul>
	Should a Tenderer not provide all the above-mentioned data or information, the Tenderer will be considered non-responsive.
	Add the following to the clause:
	"Accept that the Employer shall in the evaluation of tenders take due account of the Tenderer's past performance in executing similar construction works of comparable magnitude, and the degree to which he possesses the necessary technical, financial, and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, by furnishing details in Part T2 – Returnable Documents.
	Accept that the Employer is restricted in accordance with clause 4. (4) of the Construction Regulations, 2014, to only appoint a contractor who he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that submitting inferior and inadequate

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4 Wording / Data		
Clause	information relating to health and safety (as required in clause C2.23) shall be regarded as justifiable		
	and compelling reasons not to award a contract to a Tenderer."		
C.2.15.1	The closing date and time for submission of tender offers is on the 19 September 2025 at 12:00am.		
	The employer's address for the delivery of tender offers and identification details to be shown on each tender offer package are given below. Only tenders submitted to this tender box will be opened and considered. It is the Tenderer's responsibility to make sure it is delivered into the tender box before closing.		
	Location of Tender Box: O. R. Tambo District Municipality O. R. Tambo District Municipality Ground Floor (Next to the Entrance) Myezo Park Nelson Mandela Drive Mthatha, 5099		
	Identification Details: Place the signed tender offer in a package marked "TENDER FOR CONTRACT: MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY - PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4"		
	Telephonic, telegraphic, telex, facsimile, e-mailed or posted tender offers will not be accepted.		
C.2.16.1	Tender Offer Validity		
	Add the following to the end of Clause C.2.16.1:		
	The tender offer validity period is <b>90 days</b> .		
	If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall remain valid and open for acceptance until the closure of business on the following working day."		
C.2.16.3	Where a tenderer, at any time after the opening of his tender offer but prior to entering a contract based on his tender offer:		
	withdraws his tender.		
	gives notice of his inability to execute the contract in terms of his tender; or		
	• fails to comply with a request made in terms of C.2.17, C.2.18 or C.3.9.		
C 2 47	Withdrawal is accepted and tenderers shall sign a letter to acknowledge withdrawal of bid.  Clarification of Tender Offer after Submission		
C.2.17	Jiannication of Tender Offer after Submission		
	Add the following to the end of <b>Clause C.2.17</b> :		
	'A tender may be rejected as non-responsive if the Tenderer fails to provide any clarification requested by the Employer, or confirmation of registration with CIDB within the time for submission stated in the Employer's written request for such clarification or confirmation. A tender may be rejected if the unit rates or lump sums for some of the items in the bill / Bill of Quantities are, in the		

Clause	Wording / Data
	opinion of the Employer, unreasonable or out of proportion, and the Tenderer fails, within the time stated in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the total of the prices unchanged."
C.2.18	The Tenderer shall, when requested by the Employer to do so, submit any additional information requested under this clause within <b>7 working days</b> of the date of request.
C.2.22	The tenderer is required to return all tender documents with the Tender Offer, prior to the closing time for the submission of Tender Offers.
C.2.23	The tenderer is required to submit the following with his tender:
	CSD Supplier Number and Tax compliance PIN numbers in case of Bidder only / Consortia / JV:
	a) Bidders must ensure compliance with their tax obligations.
	b) 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.
	c) Application for tax compliance status (TCS) 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.
	d) Bidders may also submit a printed TCS together with the bid.
	e) In bids where Consortia / Joint Ventures / Sub-contractors are involved; each party must submit a separate proof of TCS / PIN / CSD number.
	f) Where no TCS is available, but the bidder is registered on the central supplier database (CSD), a CSD number must be provided.
	g) Proof of Contractor Registration drawn from the Construction Industry Development Board website should be attached to Returnable Document Form 2.2.18.
	h) Evidence of registration and proof of good standing with a compensation insurer who is approved by the Department of Labour in terms of Section 80 of the Compensation for Occupational Injuries and Diseases Act (Act No 130 of 1993) (COID). The Tenderer is required to disclose all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the Tenderer at a time during the 36 months preceding the date of this Tender (Refer Returnable Document Form 2.2.5).
	i) Proof of Registration in respect of each partner, where a tenderer satisfied the CIDB contractor grading designation requirements through the formation of a joint venture.
C.3.1.1	Delete the contents of Clause C.3.1.1 and replace with the following:
	"The Employer will respond to a request for clarification received up to seven working days before the tender closing time stated in the Tender Data."

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C.3.2	The Employer shall issue addenda until three working days before the tender closing time.	
0.0.2	Add the following to Clause 3.2:	
	Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.	
C.3.4.1	The time and location for the opening of tender offers are:	
	Time: 12:00pm on the 18 <sup>th</sup> September 2025	
C.3.4.2	Tenders will be opened immediately after the closing time for tenders at:	
	Location: O. R. Tambo District Municipality	
	Physical Address: O. R. Tambo District Municipality	
	Myezo Park Nelson Mandela Drive	
	Mthatha	
	5099	
C.3.5	A two-envelope procedure <u>will not</u> be followed.	
C.3.7	Grounds for rejection and disqualification	
	Add the following to the end of Clause C.3.7:	
	"Tenderers will be disqualified if,	
	<ul> <li>a) Any of the directors/shareholders of the Tenderer are listed on the National Treasury Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business in the public sector.</li> </ul>	
	b) If, from information given in the completed Compulsory Enterprise Questionnaire, the Employer considers that there is a potential conflict of interest which may potentially compromise the tender process.	
	In the event of disqualification, the Employer may, at his sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to the CIDB and National Treasury.	
C.3.8.2	Add the following directly after Clause C.3.8.2 c):	
	"A tender offer that does not meet the requirements as specified below, will be deemed non-responsive:	
	The Tenderer offer does not meet any one of the eligibility criteria specified in Clause C.2.1 as amended.	
	The Tenderer has not fully and correctly completed the Offer portion of C1.1 Form of Offer and Acceptance i.e., the price has not been completed in words and numbers, the Tenderers details	

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	are not completed fully and correctly, and the Tenderer has failed to sign the Offer portion of C1.1.	
	If requested by the Employer during the tender evaluation process, the Tenderer has failed to clarify or submit any supporting documentation within the time for submission stated in the Employer's written request.	
	The Tenderer's price is based on fixed rates in lieu of Contract Price Adjustment.	
	<ul> <li>There are any other material deficiencies whereby the price submitted is not for the identical requirements and scope of work as other correctly completed tenders (such as changing any quantity or percentage allowance in the Pricing Schedule or failing to incorporate the requirements of Addenda where these materially affected the pricing e.g. where the Notice to Tenderers required any amendments or replacements of part or all of the Bill of Quantities and the submitted Bill of Quantities does not reflect these changes)."</li> </ul>	
C.3.9.	Arithmetical errors, omissions, discrepancies and imbalanced unit rates	
	Delete the text of Clause C.3.9 and replace with:	
	Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount appearing in words shall govern. Where there is a discrepancy between the amount in the Form of Offer and the Pricing Data Summary to the BOQ, the amount in the Form of Offer shall govern.	
	Check responsive tender offers for:	
	a) the gross misplacement of the decimal point in any unit rate;	
	b) omissions made in completing the pricing schedule or bills of quantities; or	
	c) arithmetic errors in:  i. line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or	
	ii. the summation of the prices.	
	d) imbalanced unit rates.	
	Notify shortlisted tenderers of all errors, omissions or imbalanced rates that are identified in their tender offers.	
	Where the tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:	
	a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the unit rate shall govern, and the line item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted, and the unit rate shall be corrected.	
	b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.	

Clause	Wording / Data
	c) Where the unit rates are imbalanced adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under a) and b) above.
	Where there is an omission of a line item, no correction is possible, and the offer may be declared non-responsive.
	Declare as non-responsive and reject any offer from a tenderer who elects not to accept the corrections proposed and subject the tenderer to the sanction under C.2.16.3.
	The tenderer is required to submit balanced unit rates for rate only items in the pricing schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.
C.3.11	Tenders will be evaluated in terms of the O. R. Tambo District Municipality's procurement policy.
	The Employer reserves the right to contact references and make enquiries to determine the tenderer's competence, reliability, experience, reputation, and capability to perform the contract.
C.3.11.1	Add the following new paragraph directly under Clause C.3.11.1.
	The <b>Evaluation of tender offers</b> will be undertaken as follows:
	Replace the contents of the entire sub-clause with the following:
	The procedure for evaluation of responsive tender offers will be method 2 of table F.1 of SANS 294: 2004. Financial offer & Preferences. The bid will be awarded to the bidder who has scored the highest points for price and preferences combined <b>BUT</b> the prerequisite will be to obtain at least <b>80 points</b> for quality (functionality), which will be explained in Stage 2 below.
	Nevertheless, O. R. Tambo District Municipality retains the right to accept any bid.
	Stage 1: Compliance with Bid Rules and other Requirements
	The bids will be checked to ensure that they comply with the bid rules and all other requirements of the project document. Tender offers will be screened to identify schedules and requested documents that are incomplete or have not been submitted. In particular, the following documentation must be completed and/or included within the bid.  • The form of Offer and Acceptance
	<ul> <li>Audited financial statements for any tender price over R10million</li> </ul>
	Certified company registration documents and ID of members
	Form C: Compulsory Enterprise Questionnaire     Form D: Cortificate of Authority for Signature
	<ul> <li>Form D: Certificate of Authority for Signature</li> <li>Form E: Amendments, Qualifications and Alternatives</li> </ul>
	Form H: Certificate of Good Standing
	Form I: Relevant company experience
	Form J: Details of key staff and CVs

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	Form M: Preference Points Claim Form in Terms of the Preferential Procur	ement Regulations
	2022	
	All information supporting the above forms	
	Addenda issued during the bid period, if any.	
	The pricing schedule	
	Tender offers will be tested for compliance with all the requirements of the as- Conditions of Tender including the following:  a) Eligibility (C.2.1) b) Pricing the tender offer (C.2.10.3) c) Alterations to documents (C.2.11) d) Alternative tenders offer (C.2.12) e) Submitting a tender offer (C.2.13) f) MBD4 – Bidders' Disclosure.  Tender offers will be declared non-responsive should they fail to comply w requirements of 1) above. Failure to supply the required and requested information Bid Non-responsive, and the Bid will be disqualified.  Stage 2: Minimum Conditions of Tender / Functionality  The next state in the evaluation process will consist of evaluating Functionality	ith any one of the ation will render the
	FUNCTIONALITY EVALUATION	
	ITEM	WEIGHT
	Minimum Conditions of Tender / Functionality (see detailed criteria below)	100
	Experience with respect to similar projects	60
	Qualifications and Experience of key staff assigned to the contract	40
	Only bidders who score <b>80 points or more</b> on stage 2 will be evaluated further at for award.  The maximum score for functionality shall be <b>100</b> , distributed as follows:	nd therefore eligible
	MINIMUM CONDITIONS OF TENDER  Minimum conditions of tender / Functionality  B1.1 Experience on similar projects	Maximum tender evaluation points provided 60
1		

Clause	Wording / Data	
	Experience on similar projects: Proven experience in the construction	ction of
	Water Supply pipelines (Bulk and Reticulation), Reinforced Concrete resor Waterborne Sewer pipelines (Bulk and Reticulation) conforment Letter from the Client and Practical Completion not old 06 months or Completion Certificate for each Contract shall be included supporting documentation submitted with the bid document as evidenthe Contract No, Contract Name, Employer and Employer's Agent and	servoirs ontracts. der than id in the ince with Date of
	Completion clearly shown. Copies of the Certificate of Completion M submitted with the bid. No points will be awarded where Certific Completion have not been submitted with the Bid. Reference letter not be accepted.	eates of ers will
	At least three (3) construction contracts of a similar nature whose total value of at least R30 million, successfully completed within the last 10	years.
	At least two construction contracts of a similar nature whose total sum at least R 25 million, successfully completed within the last 10 years.	value of 30
	The Contractor has less than two Completed Projects of less than R25 or the Contractor failed to provide evidence of experience.	5 Million 0
	B1.2 Qualifications and Experience of key personnel (NB no key personnel r may be assigned more than one duty on the Contract, i.e. different personnel be assigned for each of the following key positions) Contracts Mail = Minimum National Diploma in Civil Engineering or higher NQF level 6 (ND in Construction Manager (Site Agent) = Minimum NQF level 6 (ND in Construction Manager (Site Agent) = Minimum NQF level 6 (ND in Council of South Africa or SACPCMP, SMME Construction Manager Minimum National Diploma in Civil Engineering or higher NQF level 6, In and Safety Officer (Permanently on Site) = Hold Professional Regist with SACPCMP in the category of Professional Health and Safety Office have at least three years' experience in the role of Health and Safety Office on Civil Engineering construction sites. Bidders must submit CV's/Resand contactable references.	sonnel anager S, Sivil seering = Health ration eer and officer sume
	Contracts Manager, Construction Manager (Site Agent), SN Construction Manager and Health and Safety Officer	MME
	Favourable previous experience in the Civil Engineering field with a minimum of 10 years; <b>Contracts Manager</b> = 15 points, 6-9 years = 10 points & 3-5 years = 8 points.	15
	Favourable previous experience in the Civil Engineering field with a minimum of 5 years; Construction Manager (Site Agent) = 10 poir years = 8 points & 1-2 years = 6 points.	
	Favourable previous experience in managing SMME's in the Engineering field with aminimum of 5 years; SMME Construction Ma 8 points, 3-4 years = 6 points & 1-2 years = 4 points.	
	Favourable previous experience in the Civil Engineering field with a minimum of 5 years; <b>Health and Safety</b> = 7 points, 3-4 years = 5 point years = 3 points.	
	Contractor failed to provide evidence of qualification and experience.	0

Clause	Wording / Data			
	STAGE 3: EVALUATION FOR PRICE AND SPECIFIC GOALS (80/20)			
	The procedure for Stage 3 of evaluation is as follows:			
	a) PRICE: 90 OR 80			
	b) SPECIFIC GOALS: 10 OR 20			
	<ul><li>a) Points Awarded for Price (Ps)</li><li>90/10 preference point system for acquisition of goods or services with a Rand value above R50 000 000 (all applicable taxes included).</li></ul>			
	OR			
	<b>80/20</b> preference point system for acquisition of goods or services with a Rand value below R50 000 000 (all applicable taxes included).			
	<ol> <li>Scoring of Price:         <ol> <li>Review financial offer and correct discrepancies between totals and calculations / summations in accordance with the Tender Data (C.3.9).</li> <li>Reduce all tender offers to a common base i.e. comparative offer.</li> <li>Confirm the tenderers are eligible for the specific goals claimed.</li> </ol> </li> <li>Score Tender Offer for Specific Goals.</li> <li>Score Tender Offer for Price.</li> </ol>			
	A maximum of 80 OR 90 points is allocated for price on the following basis, Total Points and rank Tender Offers.			
	b) Points awarded for specific goals In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in a table below as may be supported by proof/ documentation included with:			
	Scoring of Specific Goals: In accordance with the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2022, the points allocation for Specific Goals are as follows:			

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

Clause	Wording / Data		
	The specific goals allocated points in terms of this tender	Number of points Allocated on 90/10 system	Number of points Allocated on 80/20 system
	51% Black-owned enterprises	04	05
	100% Women-owned enterprises	02	05
	100% Youth-owned enterprises	02	05
	Where the enterprise head office or primary place of business is located within O.R. Tambo District.	02	05

Points will be awarded to tenderers who are eligible for preference Specific Goals. The terms and conditions of the Preference Schedule shall apply in all respects to the tender evaluation process and any subsequent contract.

Tenderers must submit certified copies of all supporting documents necessary to prove conformance with Specific Goal criteria listed above in order to be eligible for Specific Goal points.

# Note that the objective Criteria as per the SCM Policy Paragraph 72 and 73 will be applied: 72. Fair Distribution of Municipal Resources on Capital Infrastructure Projects on Awards

- Tenders will be evaluated and adjudicated as per legislation requirements, treasury guidelines and municipal policy. Fair distribution will be achieved as follows:
- A bidder will not be awarded the same commodity of work more than once in within a period of three months.
- If the highest scoring bidder has been previously awarded for the same commodity tender within that three months, then the next highest scoring bidder will be considered for recommendation and award.
- If the highest scoring bidder has been previously recommended for award in the same sitting for a tender of the same commodity, the next highest scoring bidder will be considered for recommendation and award.

#### 73. Objective criteria on the evaluation and award of bids

- The objective criteria on the evaluation and awards of bids by the municipality will be based on the following criteria and reasoning:
- Where the bidders price offer is below the engineer's estimate, that bid will be rejected as it will pose a risk to the municipality of non-completion of the project to be implemented thus leading to underspending on grants and delays in completion of projects within projected time period.
- Further in line with CIDB Practice Note 5, paragraph 3.4 (3), the municipality will judge the reasonableness of financial offers and reject all tender offers with unrealistic financial offers.

Having made the final selection:

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Ciause	Wording / Data	
	<ol> <li>An intention to Award will be issued and published on the O. R. Tambo District Municipality's website, which is <a href="www.ortambodm.gov.za">www.ortambodm.gov.za</a>.</li> <li>If no objection is received within <b>fourteen</b> days of the intention to award being issued, the successful Tenderer will be notified of O. R. Tambo District Municipality's acceptance of his/her bid.</li> </ol>	
C.3.11.3	Risk Analysis	
	Add the following new sub-clause:	
	Notwithstanding compliance with regards to CIDB registration or any other requirements of the tender, the employer will perform a risk analysis in respect of the following:	
	<ul><li>a) reasonableness of the financial offer;</li><li>b) reasonableness of unit rates and prices.</li></ul>	
	No tenderer will be recommended for award unless the tenderer has demonstrated that he/she has the resources and skills required to complete the project successfully.	
C.3.12	Replace the contents of Clause 3.12 with the following:	
	Full insurances to be provided by the Contractor. The Contractor must provide the Employer with the insurance policy information and certificates of insurance prior to the commencement of the contract.	
C3.13	In addition to the requirements of Clause C3.13, a tender will only be accepted if:	
	a) The Tenderer's tax matters are in order with the South African Revenue Services.	
	b) The Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation (CRS Number or print out to be provided).	
	c) The Tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.	
	d) The Tenderer is registered in the Department of National Treasury - Central Supplier Database (CSD Number to be provided).	
	e) The Tenderer has not:	
	i) abused the Employer's Supply Chain Management System or	
	<ul><li>ii) failed to perform on any previous contract and has been given a written notice to this effect.</li></ul>	
	f) The tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are not permitted to submit tenders or participate in the contract; In the case of Joint Ventures all members of the JV are to complete the Compulsory Enterprise Questionnaire.	
	g) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer.	

Clause	Wording / Data
	h) Attended a compulsory briefing session and site inspection. Signing the briefing and site inspection attendance register is mandatory.
	i) The Form of Offer and Acceptance is correctly completed and signed.
C.3.16	An Employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the Employer, register and publish the award on the CIDB Register of Projects.
C.3.17	The number of paper copies of the signed contract to be provided by the employer is <b>one</b> .
C.3.18	All requests shall be in writing.
C.3.19	Add the following new clause below Clause C.3.18:
	"Jurisdiction" unless stated otherwise in the tender data, each Tenderer and the Employer undertake to accept the jurisdiction of the law courts of the Republic of South Africa.
C.3.20	Add the following new clause below Clause C.3.18:
	The successful tenderer will be encouraged to include as much of the Direct Participation required minimum 21% spend by subcontracting to local EMEs or QSEs from the immediate area of the Site.
	The details of any EMEs / QSEs need not to be submitted with the tender but will be required of the preferred bidder prior to the signing of the Contract.

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### T1.3: STANDARD CONDITIONS OF TENDER

#### **Annex C**

(normative)

#### Standard Conditions of Tender

As published in Annexure C of the Construction Industry Development Board (CIDB) Standard for Uniformity for construction Procurement, Board Notice 423 Government Gazette No 42622 of 08 August 2019.

- C.1 General
- C.1.1 Actions
- **C.1.1.1** The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and withintegrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- **C.1.1.2** The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become awareof such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

#### Note:

- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
- 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.
  - **C.1.1.3** The employer shall not seek, and a tenderer shall not submit a tender without having a firm intention and the capacity to proceedwith the contract.

#### C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

#### C.1.3 Interpretation

**C.1.3.1** The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

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C.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

For the purposes of these conditions of tender, the following definitions apply:

#### a) conflict of interest means any situation in which:

- someone in a position of trust has competing professional or personal interests which make it difficult tofulfil his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the organisation which employethat employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration:
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or theaward of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

#### C.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### C.1.5 Cancellation and Re-Invitation of Tenders

**C.1.5.1** An employer may, prior to the award of the tender, cancel a tender if-

- (a) due to changed circumstances, there is no longer a need for the services, works orgoods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received.
- (d) there is a material irregularity in the tender process.

**C1.5.2** The decision to cancel a tender must be published in the CIDB website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

**C1.5.3** An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

#### C.1.6 Procurement procedures

#### C.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

#### C.1.6.2 Competitive negotiation procedure

- **C.1.6.2.1** Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submittender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.
- **C.1.6.2.2** All responsive tenderers, or at least a minimum of not less than three responsive tenderers that are highest rankedin terms of the evaluation criteria stated in the tender data, shall be invited to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

- **C.1.6.2.3**At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they areto submit their best and final offer.
- **C.1.6.2.4**The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

#### C.1.6.3 Proposal procedure using the two stage-system

#### C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract maybe negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

#### C.1.6.3.2 Option 2

- **C.1.6.3.2.1** Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
- **C.1.6.3.2.2** The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

### C.2 Tenderer's obligations

#### C.2.1 Eligibility

- **C.2.1.1** Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.
- **C.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer

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as the basis in a prior processto invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

#### C.2.2 Cost of tendering

**C.2.2.1** Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costsincurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

**C.2.2.2** The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so asnot to incur any costs pertaining to the printing of the tender documents.

#### C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

#### C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employeronly for the purpose of preparing and submitting a tender offer in response to the invitation.

#### C.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

#### C.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

#### C.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

#### C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days beforethe closing time stated in the tender data.

#### C.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

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#### C.2.10 Pricing the tender offer

- **C.2.10.1** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.
- C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.
- **C.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except asprovided for in the conditions of contract identified in the contract data.
- **C.2.10.4** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contractidentified in the contract data may provide for part payment in other currencies.

#### C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer,or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

#### C.2.12 Alternative tender offers

- **C.2.12.1** Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares therequirements of the tender documents with the alternative requirements that are proposed.
- **C.2.12.2** Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
- **C.2.12.3** An alternative tender offer may only be considered if the main tender offer is the winning tender.

#### C.2.13 Submitting a tender offer

- **C.2.13.1** Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tenderdata.
- **C.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (ifthey were issued in electronic format) or by writing legibly in non-erasable ink.
- **C.2.13.3** Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- **C.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorised signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as

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"ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tenderdata, as well as the tenderer's name and contact address.

- **C.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- **C.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only theemployer's address and identification details as stated in the tender data.
- **C.2.13.8** Accept that the employer will not assume any responsibility for the misplacement or premature opening of thetender offer if the outer package is not sealed and marked as stated.
- **C.2.13.9** Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

#### C.2.14 Information and data to be completed in all respects

Accept that tender offers, 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.

#### C.2.15 Closing time

- **C.2.15.1** Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- **C.2.15.2** Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

#### C.2.16 Tender offer validity

- **C.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- **C.2.16.2** If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.
- **C.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated un C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).
- **C.2.16.4** Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with therequirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

#### C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation

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of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer issought, offered, or permitted.

**Note:** Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following acompetitive selection process, should the Employer elect to do so.

#### C.2.18 Provide other material

**C.2.18.1** Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarised joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

#### C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

#### C.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies, and certificates of insurance required in terms of the conditions of contract identified in the contract data.

#### C.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

#### C.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

#### C.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

#### C.2 The employer's undertakings

#### C.2.1 Respond to requests from the tenderer

- **C.3.1.1** Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.
- C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) orany other criteria which formed part of the qualifying requirements used to prequalify a

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tenderer to submit a tender offer interms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any ofthe collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of theprequalification process.

#### C.2.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

#### C.2.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open atender submission to obtain a forwarding address), to the tenderer concerned.

#### C.2.4 Opening of tender submissions

- **C.3.4.1** Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.
- **C.3.4.2** Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.
- **C.3.4.3** Make available the record outlined in C.3.4.2 to all interested persons upon request.

#### C.2.5 Two-envelope system

- **C.3.5.1** Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.
- **C.3.5.2** Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

#### C.2.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for

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the award of a contract, until after the award of the contract to the successful tenderer.

#### C.2.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

#### C.2.8 Test for responsiveness

**C.3.8.1** Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.
- **C.3.8.2** A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:
- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

#### C.2.9 Arithmetical errors, omissions and discrepancies

- **C.3.9.1.** Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
  - **C.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:
  - a) the gross misplacement of the decimal point in any unit rate:
  - b) omissions made in completing the pricing schedule or bills of quantities; or
  - c) arithmetic errors in:
    - i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
    - ii) the summation of the prices.
  - **C.3.9.3** Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tenderoffer as tendered or accept the corrected total of prices.
  - **C.3.9.4** Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:
  - a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and, the rate shall be corrected. Where there is anobviously gross misplacement of the decimal point in the unit rate,

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the line item total as quoted shall govern, and the unit rate shall be corrected.

b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked torevise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

#### C.2.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

#### C.2.11 Evaluation of a tender offer

The Standard Conditions of Tender standardise the procurement processes, methods and procedures from the time thattenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

Requirement	ent Qualitative interpretation of goal	
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timelyaccess to participating parties to the same information.	
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.	
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.	
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.	
Cost effective	Cost effective	

#### The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

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#### **C.3.11.1 General**

The Employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of worksto evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified on tender data.

#### C.2.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

#### C.2.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- can, as necessary and in relation to the proposed contract, demonstrate that he or she
  possesses the professional and technical qualifications, professional and technical competence,
  financial resources, equipmentand other physical facilities, managerial capability, reliability,
  experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities, or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

#### C.2.14 Prepare contract documents

**C.3.14.1** If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

#### C.2.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties tocomplete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

#### C.2.16 Registration of the award

An employer must, within twenty-one (21) days from the date on which a contractor's offer to perform a construction workscontract is accepted in writing by the Employer, register and publish the award on the CIDB Register of Projects.

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### C.2.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract assoon as possible after completion and signing of the form of offer and acceptance.

#### C.2.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### T2.1 RETURNABLE DOCUMENTS

Each tenderer is required to complete and return the tender documents issued.

The following documents are also to be completed and returned, as they constitute part of the tender.

Whilst many of the returnable are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer.

For this reason, it is very important that tenderers complete, sign submit and return all information, documents and schedules, as requested and relevant.

T2.1 List of Return	able Documents required for Tender evaluation purposes
Form 2.2.1	General Information of the Tenderer
Form 2.2.2	Authority for Signatory
Form 2.2.3	Schedule of Previous Experience
Form 2.2.4	Schedule of Current Projects
Form 2.2.5	Declaration of Good Standing Regarding Tax
Form 2.2.6	Registration at the Central Supplier Database
Form 2.2.7	Certificate of Attendance at Site Meeting
Form 2.2.8	Proposed Organisation and staffing
	Proposed Key Personnel
Form 2.2.10	Schedule of Proposed Sub-Contractors
Form 2.2.11	Financial References
	Municipal Bidding Documents (MBD forms):  MBD 1 – Invitation to bid  MBD 4 – Declaration of Interest  MBD 5 – Declaration for Procurement above R10 million  MBD 6.1 – Preference Points Claim Form in Terms of PPPFA  MBD 8 – Declaration of Bidder's Past Supply Chain Management Practices
	MBD 9 – Certificate of Independent Bid Determination Schedule of proposed plant and equipment
	Health and safety plan
	Preliminary programme
	Estimated monthly expenditure
	Declaration regarding fulfilment of the Construction Regulations, 2014
	CIDB Registration
	Letter of Good Standing
	ocuments that will be incorporated into the contract
	Record of Addenda to Tender Documents
Form 2.3.2 F	Procurement Form
Form 2.3.3 C	Original Tax Clearance Certificate
Form 2.3.4 N	lational Treasury: Central Supplier Database

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### T2.2 RETURNABLE DOCUMENTS FOR TENDER EVALUATION PURPOSES

#### RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Form 2.2.1	General Information of Tenderer
Form 2.2.2	Authority of Signatory
Form 2.2.3	Schedule of Previous Experience
Form 2.2.4	Schedule of Current Projects
Form 2.2.5	Declaration of Good Standing Regarding Tax
Form 2.2.6	Registration on the Central Supplier Database
Form 2.2.7	Certificate of Attendance at Site Meeting
Form 2.2.8	Proposed Organisation and Staffing
Form 2.2.9	Proposed Key Personnel
Form 2.2.10	Schedule of Proposed Sub-consultants
Form 2.2.11	Financial References
Form 2.2.12	<ul> <li>Declaration of Interest</li> <li>Declaration for Procurement above R10 million</li> <li>1 - Preference Points Claim Form in Terms of PPPFA</li> <li>Declaration of Bidder's Past Supply Chain Management Practices</li> </ul>
Form 2.2.13	Schedule of Proposed Plant and Equipment
Form 2.1.14	Health and Safety Plan
Form 2.1.15	Preliminary Programme
Form 2.1.16	Estimated Monthly Expenditure
Form 2.1.17	Declaration Concerning Fulfilment of The Construction Regulations, 2014
Form 2.1.18	CIDB Registration
Form 2.1.19	COID Letter of Good Standing

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.1 GENERAL INFORMATION OF TENDERER

		of Tenderer:			
	Contact details				
Ado	dress :				
Tel	no :				
Fax	x no :				
Cel	ll no :				
E-r	nail add	ress:			
3.	Legal	entity: Mark with an X.			
		Sole proprietor			
		Partnership			
		Close corporation			
		Company (Pty) Ltd			
		Joint venture			
ln t	he case	of a Joint venture, provide deta	ils on joint vei	nture members:	
		Joint venture member		Type of entity (as defined above)	
4.	Incom	e tax reference number:			
(in	case of	a joint venture, provide for all joi	int venture me	embers)	
5.	Munic	ipal services area where the e	enterprise is	registered:	
(in	case of	a joint venture, provide for all joi	int venture me	embers)	
6.	Comp	any / close corporation Regist	tration Numb	per:	
(in	case of	a joint venture, provide for all jo	int venture me	embers)	
7.	VA	T Registration number:			
(in	case of	a joint venture, provide for all joi	int venture me	embers)	
8.	CIE	B registration number:			
(in	case of	a joint venture, provide for all joi	int venture me	embers)	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### ATTACH THE FOLLOWING DOCUMENTS HERETO

#### 1. For Closed Corporations

Certified copies of CK1 or CK2 as applicable (Founding Statement)

#### 2. For Companies

Certified copies of Shareholders register

### 3. ID copies

Certified ID Copies for members

#### 4. CIDB registration

Proof of registration with CIDB

### 5. CSD registration

Proof of registration with Central Supplier Database

#### 6. For Joint Venture Agreements

Copy of the Joint Venture Agreement between all the parties, as well as the certified documents in (1), and or (2) and (4) and (4) of each Joint Venture member.

- 7. Copy of the latest municipal service account where enterprise is registered
- 8. Director's / Shareholder's Municipal Rates
- 9. Specific Goal Points Contribution
- 10. Central Supplier Database Summary Report

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### FORM 2.2.2 AUTHORITY OF SIGNATORY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer mustcomplete the certificate set out below for the relevant category.

	A	B	C Laint Vantura	D Sala Bransiatas	Class Corneration	
	Company	Partnership	Joint Venture	Sole Proprietor	Close Corporation	
A	A. Certificate f	or Company				
I,		, ch	nairperson of th	ne board of o	directors of	
			•		pard (copy attached) take	
		Mr/Mrsnection with this tende	•	• •	was authorised to behalf of the company.	0
As w	itness					
1						
		C	Chairman			
2						
		D	ate			
E	3. Certificate of	of Partnership				
We, t	he undersigned, beir	ng the key partners in t	he business trading	g as		
	•	r/Mrs		=	•	у
		to sign				r
Conti	acı		and a	ny contract resultin	ng from it on our behalf.	
Ī	NAME	ADDRESS	SIGNATURE	DATE		
_						

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

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise

### C. Certificate for Joint Venture

Mr/Mrs....., authorised signatory of the company,

acting in the capacity of lead			tion with the tender offer for r behalf.					
This authorisation is evidenced all the partners to the Joint Vent								
NAME OF FIRM	ADDRESS	DULY AUTHORI	SED SIGNATORY					
Lead partner								
		Signature	•					
CIDB registration no		Name	:					
		Designation	:					
OIDDi		Signature	:					
CIDB registration no		Name	:					
		Designation	:					
		Signature						
CIDB registration no								
		Name	:					
		Designation	:					
		Signature	:					
CIDB registration no		J.g. latar						
<del>g</del>		Name						

A copy of the Joint Venture Agreement showing clearly the percentage contribution of each partner to the Joint Venture shall be appended to this Schedule.

Designation

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

D. Certificate f	for Sole Prop	orietor
------------------	---------------	---------

Ι,	, hereby confirm that I am the sole owner of the business trading					
as						
As۱	Vitness:					
1						
			Signature: Sole o	wner		
2						
			Date			
	E. Certific	ate for Close Corporation	on			
We,	the undersigned	d, being the key member	rs in the business tradir	ng as		
her	eby authorise Mr	/Mrs				
Acti	ng in the capacity	of	, to sign a	II documents in conn	ection with the tender	
for (	Contract		and any c	ontract resulting fror	n it on our behalf.	
	NAME	ADDRESS	SIGNATURE	DATE		

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

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

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

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

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#### FORM 2.2.3 SCHEDULE OF PREVIOUS EXPERIENCE

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, as defined in Tender Clause C3.11.1).

Practical Completion not older than 12 months or Completion certificates must be submitted for project to be considered for evaluation of Compliance as per Tender Clause C3.11.1.

	Value (R) VAT	Year(s) Refe	Reference		
Description	excluded	work executed	Name	Organisation	Tel no
	•	•	•	<u>'</u>	
ana of Tag days			Det		
ame of Tenderer:			Date	:	
gnature:					

Full name of signatory:

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.4 SCHEDULE OF CURRENT PROJECTS

Provide the following information on current relevant projects. **This information is material to the award of the Contract.** 

	Value (R) VAT	Date	Reference		
Description	excluded	Appointed	Name	Organisation	Tel no
_					

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

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.5 DECLARATION OF GOOD STANDING REGARDING TAX

SOUTH AFRICAN REVENUE SERVICES  DECLARATION OF GOOD STANDING REGARDING TAX PARTICULARS	Tender No: Closing Date:
1 / II /	
Name of Taxpayer/Tenderer:     Trade Name:	
3. Identification Number: (If applicable)	
4. Company / Close Corporation registration number:	
5. Income Tax reference number:	
6. VAT registration number: (If applicable)	
7. PAYE employer's registration number: (If applicable)	
8. Monetary value of Bid:	
DECLARATION	
I, the undersigned, the above taxpayer/Tenderer, hereby You-Earn (PAYE) and Value-Added-Tax (VAT) obligations of include the rendition of returns and payment of the relevant ta (i) Have been satisfied in terms of the relevant Acts; or (ii) That suitable arrangements have been made with the	of the above-mentioned taxpayer, which axes:
SIGNATURE CAPACITY DATE	
PLEASE NOTE:* The declaration (ii) cannot be made made with the Receiver of Revenue with regard to any outsta	<u> </u>

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

In terms of Clause 43 of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of taxes. It is a condition of bid that the taxes of the successful tenderer must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the tenderer's tax obligations.

The tenderer must attach to this page an Original(s) of a Valid Tax Clearance Certificate(s).

- 1. In order to meet this requirement tenderers are required to complete in full the form TCC 001"Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign tenderers / individuals who wish to submit bids.
- 2. SARS will then furnish the tenderer with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3. The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.

Alternatively, the tenderer must submit a Tax Compliance Status PIN to allow Supply Chain Management to verify the real-time compliance status.

Tou Compliance Status DINI	
Tax Compliance Status PIN	

- 4. In bids where Consortia / Joint Ventures / Sub-contractors are involved; each party must submit a separate Tax Clearance Certificate.
- 5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6. Applications for the Tax Clearance Certificates 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

No contract shall be awarded to a Tenderer who does not have a valid Tax Clearance Certificate.

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

### MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4 FORM 2.2.6 REGISTRATION ON THE CENTRAL SUPPLIER DATABASE

	1 OKW 2.2.0	REGISTRATIC	N ON THE CEN	ITRAL SUFFLIER	DATABASE
	roof of registration to the awardof the		Treasury Central	Supplier Database	. <u>This information is</u>
ATTACH	I CERTIFIED PROO	F OF REGISTRAT	ION ON THE NAT	ΓΙΟΝΑL CENTRAL S	SUPPLIER DATABASE

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.7 CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to c	•	
		(Tenderer)(address)
was repres	sented by the person(s) named below at the	e compulsory meeting held for all tenderers at
	(	(location) on (Date)
starting at		
or matters		s to acquaint ourselves with the site of the works and a tender documents in order for us to take account of trices included in the tender.
Particulars	of person(s) attending the meeting:	
Name		Signature
Capacity		
Name		Signature
Capacity		
Attendance	e of the above persons at the meeting is co	nfirmed by the Employer's representative, namely:
Name		Signature
Capacity		Date & Time

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#### FORM 2.2.8 PROPOSED ORGANISATION AND STAFFING

The tender offer shall include an organogram clearly showing the team of key personnel the Tenderer proposes to assign to the Contract and how responsibilities for the various disciplines or work and components of the Works will be assigned. The name, roles and responsibilities of each person and the name of their employer must be clearly set out, and corresponding job descriptions must be provided as an addendum to the organogram.

In the case of a Joint Venture or where major sub-contractors are made use of, the organogram must show how respective responsibilities are to be allocated.

As a minimum, the organogram must show how respective responsibilities are to be allocated. As a minimum, the organogram must include for the personnel detailed in Returnable Document FORM 2.1.12: Experience of Key Personnel.

The Tenderer shall include the requisite organogram and addendums in the Supporting Documentation file, to be submitted in accordance with Clause C2.13.3 of T1.2.2 Variations to the Standard Conditions of Tender.

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#### FORM 2.2.9 PROPOSED KEY PERSONNEL

Curriculum Vitae (CV), up to a maximum of five (5) pages must be submitted, for each of the key personnel (at least Contract Manager, Construction Manager, SMME Construction Manager and Construction Health & Safety Officer proposed in Returnable Document: FORM 2.1.8: Proposed Organisation and Staffing. The CVs must specifically include the qualifications, professional accreditation, experience of 10 years (Contract Manager) and 5 years (Construction Manager, SMME Construction Manager and Construction Health & Safety Officer) roles and responsibilities in construction projects of a similar nature. Contact details of at least three (3) contactable referees must also be provided. A template for CV's is provided overleaf.

Each CV must be clearly cross-referenced to and labelled to correspond with the organogram submitted in terms of Returnable Document: FORM 2.1.8: Proposed Organisation and Staffing, so as to indicate which role the person in question is proposed to fulfil in the Contract.

The Tenderer shall include the requisite CVs in the Supporting Documentation file, to be submitted in accordance with Clause C2.13.3 of T1.2 Variations to the Standard Conditions of Tenders.

The proposed key personnel will be evaluated for Compliance based on Clause C3.11.1.

Name and Surname	Position	Qualifications and Years of Experience (Post qualification)
	Contracts Manager	
	Construction Manager (Site Agent)	
	SMME Construction Manger	
	Construction H&S Officer (SACPCMP: CHSO) Attach CV and proof of registration and qualification	
	Other	

Note: In respect of positions of Contract Manager and Construction Manager **two** separate individuals are required for the above positions (and this is to be stated in the tender document).

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#### INSERT KEY PERSONNEL CVs HERE ACCORDING TO THE TEMPLATE BELOW

Name: Professional: Date of Birth: Parent Firm: Position in Firm: Indicate if Director, Contractor's Representative, Design Engineer (with component of responsibility), Installation/construction Foreman (with component of responsibility) etc. Years with Firm: Nationality:
Tertiary Education (and year obtained):
Professional Accreditation (and year obtained):
Years of Relevant Experience:
Languages: Indicate first language. If the first language is not English, please indicate proficiency in English. In other languages, including South African indigenous languages, please show speaking, reading and writing ability.
Language Speaking Reading Writing English
Countries of Work Experience
Proposed Position of Team
Key Qualifications
Under this heading, give outline of staff members experience and training most pertinent to the assigned work on the team.
Relevant Experience

Describe degree of responsibility held by staff member on relevant previous assignments, and give dates, project values and locations. For experience in the last ten years, also give types of activities performed and Client references where appropriate.

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

Summary of Other Experience

Under this headii	ng, list all position	ons held by sta	ff member s	since graduatio	n, giving dates	names of
employing organ	isation, title of p	osition held an	d location, t	type and value	of construction	projects.

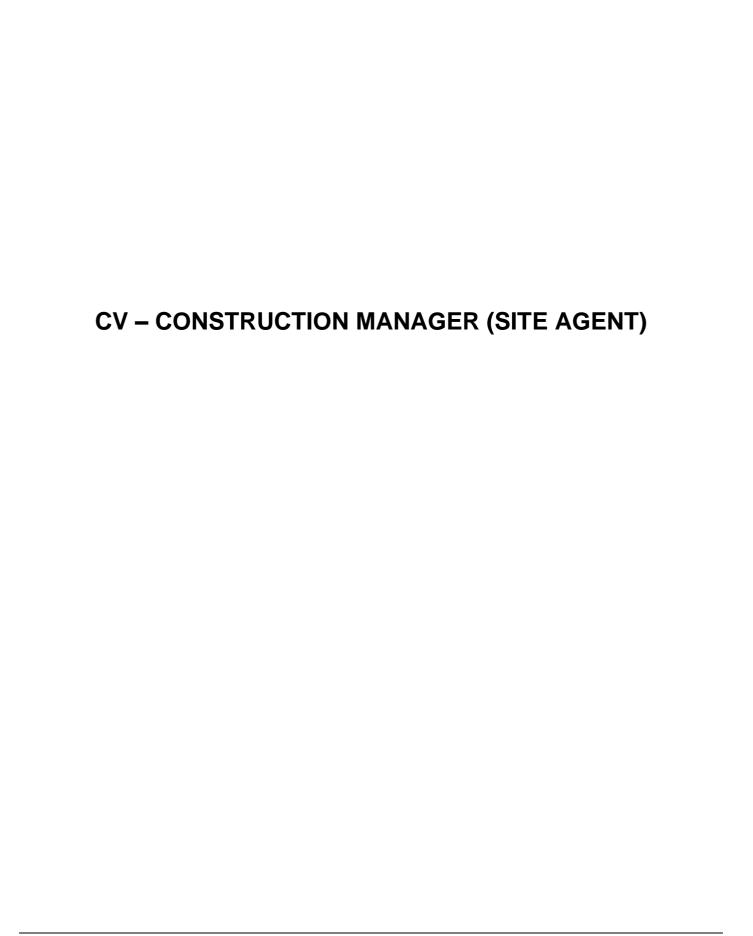
References

Declaration

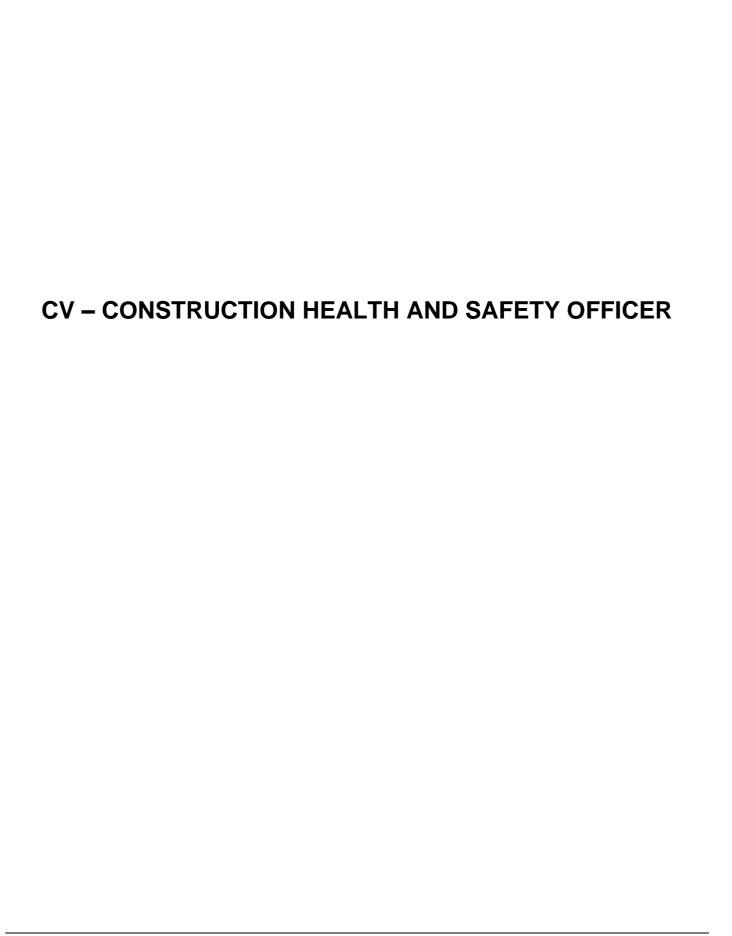
I confirm that the above information contained in the CV is an accurate description of my experience and qualifications and that, at the time of signature, I am available and will serve in the position indicated for me in the proposal for TENDER NUMBER: MIS 540 115 D: MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

Signed	Date
Name	Position









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### FORM 2.2.10 SCHEDULE OF PROPOSED SUB-CONTRACTORS

NAME OF SUB-CONTRACTOR	FULL DESCRIPTION OF WORK TO BE PERFORMED BY SUB- CONTRACTORS
subcontracted to QSEs and EMEs a Empowerment Act (No. 53 of 2003) as shall take all reasonable and practical	ct that a minimum of 30% of the construction work shall be as contemplated in the 'The Broad-Based Black Economic amended by B-BBEE Act 46 of 2013 (The Act)'. The Contractor measures to support, mentor, train, upskill and supervise such rategic Objectives of the Amended Construction Sector Code.
any of the subcontractors not be approvinvalidate this tender, and the tendered u	nstrued as approval of all or any of the listed subcontractors. Should yed subsequent to acceptance of the tender, this shall in no way nit rates for the various items of work shall remain final and binding isted above being approved by the Employer's Agent.
Name of Tenderer:	Date:
Signature:	
Full name of signatory:	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### FORM 2.2.11 FINANCIAL REFERENCES

#### FINANCIAL STATEMENTS

I/We agree to furnish an audited copy of the latest set of financial statements together with my/our Directors' and Auditors' report for consideration by the Employer.

#### DETAILS OF TENDERERS BANKING INFORMATION

I/We hereby authorise the Employer/Employer's Agent to approach all or any of the following banks for the purposes of obtaining a financial reference:

BANK NAME:		
ACCOUNT NAME: (e.g. ABC Civil Construction cc)		
ACCOUNT TYPE: (e.g. Savings, Cheque etc)		
ACCOUNT NO:		
ADDRESS OF BANK:		
CONTACT PERSON:		
TEL. NO. OF BANK / CONTACT:		
How long has this account been in existence:	(Tick which is appropriate)	0-6 months 7-12 months 13-24 months More than 24 months
Name of Tenderer:	Date:	
Signature:		
Full name of signatory:		

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### **ATTACH AUDITED FINANCIAL STATEMENTS**

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### FORM 2.2.12 MUNICIPAL BIDDING DOCUMENTS (MBD)

#### **MBD 1 - PART A INVITATION TO BID**

BID NUMBER: CONTRAC	T NO.	: MIS 540 115 D	CLOSING	DATE:	19 September 2025	CLOSING TIME:	12h00
NECURIDITIONS		ONDARY BUL OM SIHLABENI				ASE 2: CONSTRUC	TION OF
BID RESPONSE DOCUME	NTS I	MAY BE DEPOS	SITED IN THE	BID B	OX SITUATED AT:		
TENDER BOX, GROUND	FLOOI	R, O. R. TAMBO	DISTRICT	IUNICI	PALITY BUILDING		
NELSON MANDELA DRIV							
MYEZO PARK							
MTHATHA							
EASTERN CAPE							
SUPPLIER INFORMATION	J						
NAME OF BIDDER							
POSTAL ADDRESS							
STREET ADDRESS							
TELEPHONE NUMBER		CODE			NUMBER		
CELLPHONE NUMBER			I		<b>L</b>		
FACSIMILE NUMBER		CODE			NUMBER		
E-MAIL ADDRESS							
VAT REGISTRATION NUM	/IBER						
TAX COMPLIANCE STAT	JS	TCS PIN:			CSD No:		
				5	STATEMENT OF		
STATEMENT OF RATES A	AND	Yes	No	F	RATES AND TAXES	S Yes N	0
TAXES OF THE BIDDER					OF THE COMPANY	′	
STATEMENT OF RATES	AND T	AXES OF THE	BIDDER AND	OF TI	HE COMPANY/ LE	ASE AGREEMENT	FOR
LEASED PROPERTY MUS	ST BE	SUBMITTED IN	ORDER TO	QUALI	FY FOR PREFERE	NCE POINTS]	
ARE YOU THE				AF	RE YOU A		
ACCREDITED	Yes	No		FC	REIGN BASED	Yes No	
REPRESENTATIVE IN	[IF Y	ES ENCLOSE F	PROOF]	SL	JPPLIER FORTHE	[IF YES, ANSWER	PART B:3]
SOUTHAFRICA FOR THE				G	OODS		
GOODS					ERVICES		
/SERVICES /WORKS				/W	ORKSOFFERED?		
OFFERED?							
TOTAL NUMBER OF							
ITEMSOFFERED				IC	TAL BID PRICE	R	
SIGNATURE OF BIDDER				D/	ATE		
CAPACITY UNDER				·			
WHICHTHIS BID IS							
SIGNED							
BIDDING PROCEDURE E TO:	NQUIF	RIES MAY BE D	IRECTED	TECH	NICAL INFORMAT	ION MAY BE DIRE	CTED TO:
DEPARTMENT	SCM	DEPARTMENT	-	CONT	ACT PERSON	Mr. N. Noto	
CONTACT PERSON	Mr. S	Sakhiwo Hopa		TELEI	PHONE NUMBER	047 501 6425	
TELEPHONE NUMBER	047 5	501 6449		FACS	IMILE NUMBER	N/A	
FACSIMILE NUMBER	N/A			E-MAI	L ADDRESS	nkosiyabon@ortam	bodm.gov.za
E-MAIL ADDRESS	sakh	iwoh@ortambo	odm.gov.za				

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK
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#### PART B TERMS AND CONDITIONS FOR BIDDING

#### BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BEACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED—(NOT TO BE RE-TYPED).
- 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.

#### TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E- FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
- 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
- 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

#### QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	YES	NO
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	YES	NO
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	YES	NO
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	YES	NO
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	YES	NO

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 NOTREGISTER AS PER 2.3 ABOVE.

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:	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### **MBD 4 - DECLARATION OF INTEREST**

- 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, maymake 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 Fu	ull Name of bidder or his or her representative:		
3.2 ld	entity Number:		
3.3 P	osition occupied in the Company (director, trustee, shareholder²):		
3.4 C	ompany Registration Number:		
3.5 Ta	ax Reference Number:		
3.6 V	AT Registration Number:		
	The names of all directors / trustees / shareholders members, their in ate employee numbers must be indicated in paragraph 4 below.	dividual identity nur	nbers and
3.8 Aı	re you presently in the service of the state?	YES / NO	
3.8.1	If yes, furnish particulars		1 NACONA
Regu	lations: "in the service of the state" means to be –  (a) a member of –  (i) any municipal council;  (ii) any provincial legislature; or		INIOCINI

- (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 orbusiness 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, principle 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, principle 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				

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

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

Full name	Identity number	State employee number
Cianatura	Dai	
Signature	Dai	e
Capacity	Name of B	idder

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### MBD 5-DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

NO.	QUESTION	ANSWER (TIC	ANSWER (TICK WHICH RESPONSE IS		
		APPLICABLE)	)		
		YES	NO		
1.	Are you by law required to prepare annual finar	ncial			
	statements?				
1.1	If yes, submit audited annual financial statemer	nts for the past thre	e years or since the dateof		
	establishment if established during the last 3 years	ears.			
NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)			
		YES	NO		
2.	Do you have any outstanding undisputed				
	commitments for municipal services towards any	/			
	municipality for more than 3 months or anyother				
	service provider in respect of which payment is				
	overdue for more than 30 days?				
2.1	If no, this serves to certify that the bidder has no undisputed commitments for municipal				
	services towards any municipality for more than 3 months or other service provider inrespect of				
	which payment is overdue for more than 30 days.				
2.2	If yes, provide details:				
NO.	QUESTION ANSWER (TICK WHICH RESPONSE IS				
		APPLICABLE)			
		YES	NO		
_					
3.	Has any contract been awarded to you by an				
	organ of state during the past five years,				
	including particulars of any material non-				
	compliance or dispute concerning the				
	execution of such contract?				
3.1	If yes, provide details:				

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

NO.	QUESTION	-	ANSWER (TICK WHICH RESPONSE IS		
			APPLICABLE)		
		YES	NO		
4.	Will any portion of the goods of service	es be			
	sourced from outside the Republic, and	d if so,what			
	portion, and whether any portion of pay	yment from			
	the municipality is expected to				
	be transferred outside of the Republic?				
4.1	If yes, provide details:				
CERT	IFICATION				
I, THE	UNDERSIGNED (NAME)				
CERT	IFY THAT THE INFORMATION FURNIS	HED ON THIS DECLAR	ATION FORM IS CORRECT.		
LACC	CEPT THAT THE STATE MAY ACT AC	GAINST ME SHOULD	THIS THIS DECLARATIONPROV		
	FALSE.	SAMINOT WIE OFFICED	THIS THIS BESEARATION ROV		
Signat	ture Dat	te			
J.g. id					
Positio	on Na	me of Ridder			

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

**MBD 6.1** 

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

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

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

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

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

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals.

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

The maximum points for this tender are allocated as follows:

	POINTS	POINTS
PRICE	90	80
SPECIFIC GOALS	10	20
Total points for Price and SPECIFIC GOALS	100	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

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

#### 2. **DEFINITIONS**

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) "price" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

#### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

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

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

80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$ 

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

#### 3.2.1. POINTS AWARDED FOR PRICE

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

80/20 or 90/10

$$Ps = 80\left(1 + \frac{Pt - Pmax}{Pmax}\right)$$
 or  $Ps = 90\left(1 + \frac{Pt - Pmax}{Pmax}\right)$ 

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Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
  - (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
  - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

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

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
51% Black-owned enterprises	04	05		
100% Women-owned enterprises	02	05		
100% Youth-owned enterprises	02	05		
Where the Enterprise head office or Primary Place of business is located within O. R. Tambo District.	02	05		

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#### **DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3.	Nan	ne of company/firm
4.4.	Con	npany registration number:
4.5.	TYP	E OF COMPANY/ FIRM
		Partnership/Joint Venture / Consortium One-person business/sole propriety Close corporation Public Company Personal Liability Company (Pty) Limited Non-Profit Company State Owned Company [TICK APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
  - The information furnished is true and correct;
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
  - (a) disqualify the person from the tendering process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct:
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
  - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution, if deemed necessary.

	SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME:	
DATE:	
ADDRESS:	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### MBD 8 - 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. wilfully neglected, reneged on or failed to comply with any government, municipal or other publicsector contract during the past five years; or
  - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?		
	(Companies or persons who are listed on this Database were informed inwriting of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).		
	The Database of Restricted Suppliers now resides on the NationalTreasury's website ( <a href="www.treasury.gov.za">www.treasury.gov.za</a> ) and can be accessed by clicking on its link at the		
4.1.1	bottom of the home page.  If so, furnish particulars:		<u> </u>
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in	Yes	No
	terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?		
	The Register for Tender Defaulters can be accessed on the National Treasury's website ( <a href="www.treasury.gov.za">www.treasury.gov.za</a> ) by clicking on its link at the bottom of the home page.		
4.2.1	If so, furnish particulars:		<u> </u>
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No 🗆
4.3.1	If so, furnish particulars:		,

Item	Question		Yes	No
4.4	Does the bidder or any of its directors	owe any municipal rates and taxes or	Yes	No
		/ municipal entity, or to any other municipality	П	
	/ municipal entity, that is in arrears for	more than three months?		
4.4.1	If an furnish particulars			
4.4.1	If so, furnish particulars:			
4.5	Was any contract between the bidder	and the municipality / municipal entity or any	Yes	No
		the past five years on account of failure to		_
	perform on or comply with the contract	t?		
4.7.1	If so, furnish particulars:			
CERT	TFICATION			
	UNDERSIGNED (FULL NAME)	D ON THIS DECLARATION FORM TRUE AND CO		
CERTI	FI THAT THE INFORMATION FORMISHED	JON THIS DECLARATION FORM TRUE AND CO	JKKEUI	•
		TION OF A CONTRACT, ACTION MAY BE TAKE	EN AGA	INST ME
SHOUL	LD THIS DECLARATION PROVE TO BE FA	ALSE.		
Signat	ture Date			
Dec!#! -	No.	D:ddo:		
Positio	on Name of	bluder		

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### MBD 9 - CERTIFICATE OF INDEPENDENT BID DETERMINATION

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

## MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION

4.1			1 1441	4.1				
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,	undersigned	, 1111	Submitting	LIIC	accom	Jairy	/11119	DIG.

PROJECT NO.:		

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

in response to the invitation for the bid made by:

#### O. R. TAMBO DISTRICT MUNICIPALITY

do hereby make the following sta	tements 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 authorised 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 authorised 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 organisation, 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 ofbusiness 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

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

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.
- 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 thecontract.
- <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 2004 or any other applicable legislation.

Signature	Date
Position	Name of Bidder

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.13 SCHEDULE OF PROPOSED EQUIPMENT

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

Quantity	Description, Size, Capa	city, etc
Attach additional pages if	more space is required.	
(b) Details of r	naior equipment that will be h	ired or acquired for this contract if my/our
acceptable.	najor equipment that will be n	ind of doquired for this definition in my/our
Quantity	Description, Size, Capa	city, etc
Attach additional pages if	more space is required.	
Attach additional pages if	more space is required.	
Attach additional pages if	more space is required.	
Attach additional pages if	more space is required.	
Attach additional pages if		
D BY/ON BEHALF		Date

is

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### **FORM 2.2.14 HEALTH AND SAFETY PLAN**

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act as well as COVID-19 requirements. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard, the Tenderer shall prepare and attach a Health and Safety Plan in relation to the Client Health and Safety Specification in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. The Tenderer's Health and Safety Plan shall cover inter-alia the following details:

- 1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- 2) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- 3) Risk management systems and monitoring
- 4) Health and safety precautions and Procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- 5) Regular monitoring Procedures to be performed.
- 6) Regular liaison, consultation and review meetings with all parties.
- 7) Site security, welfare facilities and first aid.

SIGNED BY/ON BEHALF OF TENDERER:

8) Site rules and fire and emergency Procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The Tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets appended by the Tenderer to this Schedule (If nil, enter Ni	N	√umbe	er of	S	heets	s api	pend	ed b	oy t	he 1	end	erer	to t	his :	Sch	edu	ıle	(l1	t nil	i, e	ente	r٨	١IL	_)
--	---	-------	-------	---	-------	-------	------	------	------	------	-----	------	------	-------	-----	-----	-----	-----	-------	------	------	----	-----	----

# Signed Date Name Position

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### FORM 2.2.15 PRELIMINARY PROGRAMME

The Tenderer shall provide a preliminary programme in Gantt Chart format showing how the requirements of C1.2: Contract Data and Part C3: Scope of Work will be met; and outlining the key activities and milestones and Critical Path for the Works and the sequencing thereof. In addition, a preliminary cash flow forecast, matching the progress of the programme must be submitted.

The programme must be based on the tendered Time for Completion.

The preliminary programme must be included in the Supporting Documentation file to be submitted in accordance with Clause C.2.13.3 of T1.2: Variations to the Standard Conditions of Tender.

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MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.2.16 ESTIMATED MONTHLY EXPENDITURE

The Tenderer shall state his estimated cashflow on the contract based on his/her preliminary programme, tendered rates and submission of payment certificates to the Employer in the table below. Amounts for Contract Price Adjustment shall not be included.

Payment	Α	В	A – B					
Certificate No.	Payments Received	Expenditure		Net cash flow	-	Cumulative cash flow		
1	None		d		j=d			
2			е		k=j+e			
3			f		l=k+f			
4			g		m=l+g			
5			h		n=m+h			
6			etc		etc			
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
etc								
Maxim	la	ast column and	write	gest negative nun				

last column and write it here				
SIGNED	BY/ON BEHALF OF TENDERER:			
Signed		Date		
Name		Position		

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

# FORM 2.2.17 DECLARATION CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS, 2014

In terms of Regulation 4(3) of the Construction Regulations, (hereinafter referred to as the Regulations), promulgated on 18 July 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a Contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

YES

(Tick)

2.

1.	I confirm that I am fully conversant with the Regulations and that my company has (or w	vill
	acquire/procure) the necessary competencies and resources to timeously, safely and successfu	lly
	comply with all of the requirements of the Regulations.	

Own resources.	competent in terms of the Regulations (refer to 3 below)	(Ticl
	still to be hired and/or trained (until competency is achieved)	
Specialist subco	ontract resources (competent) - Specify:	

3.	Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

4.	Provide details of proposed training (if any) that will be under	ergone:
5.	List potential key risks identified and measures for addressi	na risks:
0.	List potential key have identified and measures for address	119 1151.5.
6.	I have fully included in my tendered rates and prices (in the Quantities) for all resources, actions, training and any of	
	Regulations for the duration of the construction and defects	
	(Tiak)	
	(Tick)	
YES		
NO		
CICNA:	TUDE OF REDSON(S) AUTHORISED TO SIGN THIS:	TENDED.
SIGNA	TURE OF PERSON(S) AUTHORISED TO SIGN THIS	IENDER.
4		ID NO.
1		ID NO:
(Name	in Print):	
2		ID NO:
<b>/</b> 1.	. 5.1.0	
(Name	in Print):	

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MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### **FORM 2.2.18 CIDB REGISTRATION**

Proof of Contractor's (active)	registration on t	the Construction	Industry Developme	nt Board (CIDB)	

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MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### FORM 2.2.19 COID LETTER OF GOOD STANDING

Provide a Certified copy of letter proof of good standing with a compensation insurer who is approved by the Department of Labour in terms of Section 80 of the Compensation for Occupational Injuries and Diseases Act (Act No 130 of 1993) (COID).

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### T2.3 RETURNABLE DOCUMENTS INCORPORATED INTO THE CONTRACT

#### RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

Form 2.3.1	Record of Addenda to Tender Documents
Form 2.3.2	Procurement Form
Form 2.3.3	Original Tax Clearance Certificate
Form 2.3.4	National Treasury: Central Data Supplier Base

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.3.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

(Addenda received from Employer's Agent for amendments on Tender Documentation)

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Name o	f Tenderer:	Date:
Signatu	re:	
Full nam	ne of signatory:	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### FORM 2.3.2 PROCUREMENT FORM

Acceptable Tenders will be evaluated using a system that awards points on the basis of Tender price and the meeting of specific goals.

#### **DEFINITIONS**

"Acceptable Tender" means any Tender which, in all respects, complies with the conditions of Tender and specifications as set out in the Tender document, including conditions as specified in the Preferential Procurement Policy Framework Act (Act 5 of 2000) and the Supply Chain Management of Council.

"Council" refers to the O. R. TAMBO DISTRICT Municipality.

"Equity ownership" refers to the percentage ownership and control, exercised by individuals within an enterprise and they are involved in the day to day running of the Company.

"HDI equity ownership" refers to the percentage of an enterprise, which is owned by individuals, or in the case of a company, the percentage shares that are owned by individuals meeting the requirements of the definition of a HDI.

"Historically disadvantaged individuals (HDIs)" means all South African citizens -

- (i) Who had no franchise in national elections prior to the introduction of the 1983 and 1993 constitutions (Referred to as Previously Disadvantaged Individuals (PDIs) in this document)
- (ii) Women
- (iii) Disabled persons.

"SMME's" (small, medium and micro enterprises) refers to separate and distinct business entities, including co-operative enterprises and NGOs, managed by one owner or more, as defined in the National Small Business (Act102 of 1996). Refer to the attached addendum for a definition of SMME's for different economic sectors.

Tenders are adjudicated in terms of ORTDM Procurement Policy, and the following framework is provided as a guideline in this regard.

- 1 Technical adjudication and General Criteria
  - Tenders will be adjudicated in terms of inter alia:
  - Compliance with Tender conditions
  - Technical specifications

If the Tender does not comply with the Tender conditions, the Tender will be rejected. If technical specifications are not met, the Tender may also be rejected.

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

With regard to the above, certain actions or errors are unacceptable, and warrants **REJECTION OF THE TENDER**, for example:

- A Tax Verification Pin. (Only valid tax verification pin must be attached to the Tender document).
- Pages to be completed, removed from the Tender document, and have therefore not been submitted.
- Failure to complete the Bill of Quantities as required.
- Scratching out without initialling next to the amended rates or information.
- Writing over / painting out rates / the use of tippex or any erasable ink, e.g. Pencil.
- Failure to attend compulsory site inspections.
- The Tender has not been properly signed by a party having the authority to do so, according to the Form 2.2.2 "Authority for Signatory".
- Form of Offer not completed.
- Particulars required in respect of the Tender have not been provided non-compliance of Tender requirements and/or specifications.
- The Tenderer's attempts to influence or has in fact influenced the evaluation and/or awarding of the contract.
- The Tender has been submitted after the relevant closing date and time.
- Each page of the Contract portion of this Tender document (Part C1 C4) must be initialled by the authorised person in order for the document to constitute a proper Contract between the Employer (ORTDM) and the undersigned.
- If any municipal rates and taxes or municipal service charges owed by that Tenderer or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for morethan three months.
- If any Tenderer who during the last five years has failed to perform satisfactorily on a previous contract with the municipality or any other organ of state after written notice was given to that Tenderer that performance was unsatisfactory.

#### 2 Size of enterprise and current workload

Evaluation of the Tenderer's position in terms of:

- Previous and expected current annual turnover.
- Current contractual obligations.
- Capacity to execute the contract.

#### 3 Staffing profile

Evaluation of the Tenderer's position in terms of:

- Staff available for this contract being Tendered for
- Qualifications and experience of key staff to be utilised on this contract.

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### 4 Financial ability to execute the contract:

Evaluation of the Tenderer's financial ability to execute the contract. Emphasis will be placed on the following:

• Contact the Tender's bank manager to assess the Tenderer's financial ability to execute the contract and the Tenderer hereby grants his consent for this purpose.

#### 5 Good standing with RSA Revenue Services

- Determine whether an original tax pin or an original valid tax clearance certificate has been submitted.
- The Tenderer must affix a Tax Verification Pin to page T2.2.5 of the Tender document.

#### 6 Penalties

- 7 The O. R. Tambo District Municipality will if upon investigation it is found that a preference in terms of the Contract has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Municipal Manager, one or more of the following penalties will be imposed:
  - Cancel the contract and recover all losses or damages incurred or sustained from the Tenderer.
  - Impose a financial penalty of twice the theoretical financial preference associated with the claim, which was made in the Tender.
  - Restrict the suppliers, its shareholders, and directors on obtaining any business from the O. R. Tambo District Municipality for a period of 5 years.

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### **DECLARATION**

I/We the undersigned, who warrants that he/she is duly authorised to do so on behalf of the firm, certifies that theitems mentioned in part of the foregoing procurement form and returnable documents qualifies/qualify for the preference(s) shown and acknowledge(s) that:

The information furnished is true and correct.

Signature of Tenderer

The contractor may be required to furnish documentary proof to the satisfaction of the O. R. Tambo District Municipality that the claims are correct.

If the claims are found to be inflated, the O. R. Tambo District Municipality may, in addition to any other remedy it may have, recover from the contractor all cost, losses or damages incurred or sustained by the O. R. Tambo District Municipality as a result of the award of the Contract and/or cancel the contract and claim any damages which the O. R. Tambo District Municipality may suffer by having to make less favourable arrangements after such cancellation.

Signed at	on	day of	202
For the tenderer			
WITNESSES:			
1			
2.			

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.3.3 ORIGINAL TAX CLEARANCE CERTIFICATE

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK
MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### FORM 2.3.4 NATIONAL TREASURY: CENTRAL SUPPLIER DATABASE

Proof of registration on the National Treasury Central Supplier Database to be attached here (alternatively the tenderer to provide MAAA number).

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### CONTRACT

### C1 AGREEMENT AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data (Part 1 & Part 2)
- C1.3 Tenderer's Direct Participation of Targeted Labour
- C1.4 Specification for SMME Sub-contractor Employment
- C1.5 Performance Guarantee (Pro forma)
- C1.6 Adjudication
- C1.7 Agreement in terms of the Occupational Health and Safety Act 1993 (Act 85 of 1993)

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C1.1 FORM OF OFFER AND ACCEPTANCE

#### 1. OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

# CONTRACT NO.: MIS 540 115 D: MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICE	CES INCLUSIVE OF	VALUE ADDED TAX IS:	
	Rand (in words);	R	(in figures)
This Offer may be accepted by the Acceptance and returning one copy of stated in the Tender Data, whereup Conditions of Contract identified in the	f this document to the on the Tenderer beco	Tenderer before the end of	f the period of validity
Signature(s)	Date		
Name(s)			
Capacity			
For the <b>Tenderer</b> (Name and address	s of organisation):		
Name & Signature of Witness			
Signature			
Name	-	Date	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### 2. ACCEPTANCE

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

The terms of the contract are contained in:

Part C1: Agreements and Contract Data (which includes this Agreement)

Part C2: Pricing Data
Part C3: Scope of Work
Part C4: Site Information
Part C5: Book of Drawings

and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any Addenda thereto, as listed in the Returnable Documents as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be duly signed by the authorised representative(s) of both parties.

The tenderer shall, within two (2) weeks after receiving a completed copy of this agreement including the schedule of deviation (if any), contact the Employer's Agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of the obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now contractor), within five (5) working days of the date of such receipt, notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding Contract between the parties.

Signature(s)			
Name(s)		Date	
Capacity			 
For the <b>Employer</b> (Na	me and address of organisation):		
Name & Signature			
Of Witness			
Name a	and Signature	Date	

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### 3. SCHEDULE OF DEVIATIONS

#### Notes:

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

1.	Subject	
	Details	
2.	Subject	
	Details	
3.	Subject	
	Details	
4.	Subject	
	Details	
5.	Subject	
0.	•	_
6.		_
0.	•	
	Details	

### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents, as well as any confirmation, clarification, or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

FOR THE TENDERER:		
Signatures (s)		
Name(s)		
Capacity		
	(Name and address of Organisation	<u>n)</u>
Name & Signature		
Of Witness		Date
FOR THE EMPLOYER:		
Signatures (s)		
Name(s)		
Capacity		
	(Name and address of Organisation	<u>n)</u>
Name & Signature		
Of Witness	Da	ate

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### 4. **CONFIRMATION OF RECEIPT**

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

the (day)	
of	(month)
20 (year)	
at	(place)
For the Contractor:	Signature
	Name
	Capacity
Signature and name of witness:	Signature
	Name

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### C1.2 CONTRACT DATA (PART 1)

The General Conditions of Contract for Construction Works, third edition, second print, 2015, published by the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House, 1685, is applicable to this contract and is obtainable from www.saice.org.za.

Copies of the General Conditions of Contract may be obtained from the South African Institution of Civil Engineering Tel: 011 – 805 5947

#### PART 1: DATA PROVIDED BY THE EMPLOYER

The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Contract Specific Data below. Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

#### **CONTRACT SPECIFIC DATA**

The following contract specific data, amendments, additions or omissions, referring to the General Conditions of Contract for Construction Works, Third Edition, second print, 2015, are applicable to this Contract:

The following amendments and additions to the Clauses are the contract specific data applicable to this Contract:

Clause	Description / Wording
1.1.1.13	The Defects Liability Period is <b>12 (twelve) months</b> , measured from the date of Certificate of Completion.
1.1.1.14	Refer Clause 5.5.1
1.1.1.15	The Employer is: O. R. Tambo District Municipality, represented by the <b>DIRECTOR: INFRASTRUCTURE WATER AND SANITATION SERVICES</b> and/or such other person or persons duly authorised thereto by the Employer in writing.
1.1.1.16	The Employer's Agent is ZIINZAME CONSULTING ENGINEERS CC, also referred to in the contract as "ZIINZAME CONSULTING ENGINEERS", or "ZIINZAME CONSULTING ENGINEERS" or "Employer's Agent". Any reference to the "Engineer" will have the same meaning and reference as the "Employer's Agent"
1.1.1.26	The Pricing Strategy is: A re-measurement contract
1.1.1.28	Delete the contents of <b>Sub-Clause 1.1.1.28</b> and replace with the following:  "Scope of Work means the document(s) containing the Standard Specifications, the Project Particular Specifications and the Drawings, that specify and describe the Works which are to be provided, and any other requirements and constraints relating to the manner in which the work is to be carried out."
1.1.1.35 (new)	Add the following sub-clause:

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording
	"Drawings" means all drawings, calculations and technical information forming part of the Contract Documents (other than information contained in the Specifications) and any modifications thereof or additions thereto from time to time approved in writing by the Employer's Agent or delivered to the Contractor by the Employer's Agent.
1.1.1.36 (new)	Add the following sub-clause:
	"Parties" means the Contractor and the Employer.
1.1.1.37 (new)	Add the following sub-clause:
	"Letter of Notification" means the letters of formal notification, signed by the Employer, of the decision of the Supply Chain Management Bid Adjudication Committee sent to all tenderers. The notification of the decision does not form part of the Employer's Acceptance of the successful Tenderer's Offer and no rights shall accrue.
1.1.1.38 (new)	Add the following sub-clause:
	"Approved Programme" means the latest programme submitted by the Contractor and approved by the Employer's Agent. The latest programme agreed and approved by the Employer's Agent supersedes previous approved programmes.
1.2.1.2	The Employer's Agent's address for receipt of communications is:  Telephone: 047 531 0269  Email: vmwafuka@ziinzame.co.za  Address (Postal): 25 Falcon Street
1.2.1.3 (new)	Add the following sub-clauses:
1.2.1.4 (new) 1.2.1.5 (new)	Sent by facsimile, electronic or any like communication irrespective of it being during office hours or otherwise.
1.2.1.0 (110W)	Posted to the Contractor's address and delivered by the postal authorities.
1216/2011	Delivered by a courier service and signed for by the recipient or his representative.
1.2.1.6 (new)	Add the following sub-clause:
	Any notice or claim required in accordance with this Contract shall be communicated separately from other communications, on a separate cover with specific reference to the clause in terms of which the communication was made.
	Provided that the Employer, Employer's Agent and Contractor shall be entitled, by written notice to each other, to change their said addresses.
1.3.5	Add the following to the end of <b>Sub-Clause 1.3.5</b> :
	"No part of any document or drawings issued with this enquiry may be copied, photographed or repeated in any manner or by any process without the written consent of the Employer's Agent.

MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Clause Description / Wording		
Juuse	· · · · · · · · · · · · · · · · · · ·	
	Copyright is reserved on all designs, specifications, patents and patentable designs, systems and processes contained in the documents and drawings.	
	The person, firm, or body to whom these documents are issued or made available shall be held jointly and severally responsible in their personal and corporate capacities for any contravention of the requirements of Sub-Clause 1.3.5. The recipients of these documents shall treat the documents as well as the details contained herein as private and confidential."	
3.2.3	The Employer's Agent shall obtain specific approval from the Employer before executing any of his functions or duties according to the following Clauses of the General Condition of Contract:  a) Clause 3.3.1 Nomination of Employer's Agent's Representative b) Clause 3.3.4 Employer's Agent's authority to delegate c) Clause 5.7.3 Acceleration d) Clause 5.11.2 Suspension of the Works by the Employer's Agent e) Clause 5.12.4 Acceleration instead of extension of time f) Clause 6.3.1 Approval of Variation Orders	
3.3.6	Add the following to the clause:	
	The limit of referring the matter to the Employer's Agent by the Contactor shall be twenty-one (21) days after the decision in question was given by the Employer's Agent's Representative.	
4.3.1	Add the following to the clause:	
	For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the latest Sectorial Determination: Civil Engineering Sector published from time to time.	
	Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R39 of 22 January 2020, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.	
	Compliance with the National Environmental Management Act (NEMA), Act 107 of 1998.	
	The Contractor shall comply with the Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2014 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993) and COVID-19 requirements.	
	Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall before commencement of the Works or any part thereof, be in the possession of an approved Health and Safety Plan."	
4.3.3	Add the following at the end of Clause 4.3:	
	"With regard to the Compensation for Occupational Injuries and Diseases Act (Act No. 130 of 1993), the Contractor shall, within such time as is stated for the production of insurance policies in terms of Clause 8.6.6, deliver to the Employer a letter, either	
	a) from his Insurance Company certifying that the Contractor has affected insurance with the Company for the full extent of his potential liability in respect of all workmen employed by him on the Contract and undertaking to notify the Employer of the expiry date of the policy at least one calendar month before such date, or	
	b) from the Compensation Commissioner certifying that the Contractor has complied with the requirements of the above-mentioned Act and is at present in good standing with the Compensation Fund."	

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording	
4.3.4	Add the following at the end of Clause 4.3:	
	The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as 'the Act', that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act:  (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act.	
	(ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with. The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.	
	(iii) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor.	
	The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge.	
4.3.5	Add the following at the end of Clause 4.3:	
	The Contractor shall furthermore, in compliance with Constructional Regulations 2014 to the Act:  (i) Acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 4(1)(a) of the Construction Regulation 2014 and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 5(1) of the Construction Regulation 2003 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted to the Employer for approval within fourteen (14) days after the Commencement Date for each assignment and shall be implemented and maintained from the Commencement of the Works.	
	(ii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to ensure that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified."	
	The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to ensure that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified."	

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording
4.5.4	Delete the contents of <b>Sub-Clause 4.5.4</b> and replace with the following:
	"For this contract the fees, taxes, levies and other charges to be paid by the Contractor in terms of Sub-Clause 4.5.1.1 will not be refunded by the Employer. The cost thereof shall be deemed to be included in the prices tendered for relevant items in the Bill of Quantities."
4.12.2	Add the following to the end of <b>Sub-Clause 4.12.2</b> :
	"The Employer's minimum requirements for approval of the Construction Manager:
	a) Must be in the employment of the Contractor;
	b) Must be registered with the minimum ND Civil Engineering/ NQF level 6; and
	Must have a minimum of 5 years' experience in water supply and concrete reservoir structures."
5.3.1	"The documents required from the Contractor before commencement of the works are:
	<ul> <li>a) Health and Safety Plan (refer to Clause 4.3)</li> <li>b) Initial Programme (refer to Clause 5.6)</li> <li>c) Security (refer to Clause 6.2)</li> <li>d) Insurance (refer to Clause 8.6)</li> <li>e) Cashflow Projection</li> <li>f) Overall Construction Methodology with Quality Management Plan</li> <li>g) Occupational Health and Safety Agreement Form C1.4</li> <li>h) Method Statement in terms of EMP</li> <li>i) Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer)"</li> <li>"The documentation required from the Provincial Director (DoL) before commencement with works execution are:</li> <li>a) Construction Work Permit (CWP) and site-specific number for each construction site in</li> </ul>
	<ul> <li>terms of Regulation 3(3) of Construction Regulation, 2014.</li> <li>b) In terms of Regulation 3(1) of Construction Regulations, 2014, the Employer must apply to the Provincial Director (DoL) in writing for a Construction Work Permit at least (thirty) 30 days before Commencement of the Works, said application must be in terms of Regulation 3(2) of the Construction Regulations, 2014 and including documentation in terms of the Regulations 3(2) of Construction Regulations, 2014.</li> </ul>
	Commencement of the Works is estimated to be <b>Fifty (50)</b> days after the commencement of the Contract."
5.3.2	The Contractor shall submit the documentation required under subclause 5.3.1 including that required for the application for the Construction Work Permit and Commencement with Works, within fourteen (14) days from the commencement of the Contract.
5.3.3	Add the following to the end of Sub-Clause 5.3.3:
	"However, deemed commencement of the Works shall not be construed as approval of the documentation submitted.
	The Contractor shall not commence working until the Department of Labour has issued the Construction Work Permit in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014"
5.4.1	Between the wording " Site," and "the Location" In the third line, add the following:
	"subject to the Contractor having an approved project specific Health and Safety Plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014 and complied with the initial requirements thereof,"

Clause	Description / Wording
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Works.
5.4.4 (New)	Add the following new <b>Sub-Clause 5.4.4</b> :  "The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his/her own cost any additional facilities outside the Site required by him/her for the purposes of the Works."
5.5.1	The stipulated maximum time limit for Practical Completion is <b>305 days</b> measured from the commencement date.
	The period to achieving Practical Completion starts from Commencement Date of the Contract (5.2.1) and is inclusive of:
	a) 14 days to comply with Clause 5.3.1
	b) 32 days to allow Employer to obtain Construction Work Permit in terms of Construction Regulation 2014, provided the Health and Safety Plan of the Contractor was in order and approved by the Employer Agent (namely Construction Health and Safety Agent)
	c) 305 days of construction period, thus 10 Months.
5.8.1	Delete the words "between sunset and sunrise" in the first line and replace with "outside normal working hours".
	"Non-working" days shall be Sundays.
	The Contractor will be allowed to work on Saturdays if he so chooses, but Saturdays will not be taken into account when calculating working days or any extension of time granted.
	The "special" non-working days are:
	a) Any statutory public holiday in terms of the Public Holidays Act, and, where such statutory public holiday falls on a Sunday, and the next Monday subsequently becomes a statutory public holiday in terms of the Public Holidays Act, then both the relevant Sunday and the relevant Monday shall be special non-working days under the contract;
	b) any proclaimed statutory day of mourning;
	c) any proclaimed statutory election day which is proclaimed as a statutory public holiday; and
	d) all annual year-end shutdown periods as recommended by the South African Bargaining Council for the Civil Engineering Industry.
5.9.3	Delete the contents of <b>Sub-Clause 5.9.3</b> and replace with the following:
	"The Contractor shall give adequate written notice to the Employer's Agent of any instructions or drawings, which the Contractor may require for the execution of the Works and the Employer's Agent shall deliver such instructions and/or drawings to the Contractor. The notice shall include details of the necessary drawing or instruction, details of by when it should be issued, and details of the nature and amount of the delay likely to be suffered if it is late.
5.12.1	Add the following to Clause 5.12.1:
	An Extension of Time awarded only becomes effective at the original Due Completion Date if, by that date, Practical Completion has not been achieved.
	To adjust the Due Completion Date, the circumstance must in fact delay Practical Completion.
	c) Float belongs to the Project.
5.12.2.2	Add the following to Clause 5.12.2.2:

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording						
	"Extension of time resulting from abnormal weather will be calculated as per the provisions in C3.4.2.6 of the Project Document.						
5.12.4	Delete the contents of Clause 5.12.4 and replace with the following:						
	"instead of granting extension of time, if feasible, the Employer's Agent may request the Contractor to accelerate the rate of progress to achieve Practical Completion without extension of time and agree the cost for payment of such acceleration in accordance with Clause 5.7.3."						
5.12.5 (new)	Add the following to Clause 5.12						
	Critical Path Provision						
	<ul> <li>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.</li> </ul>						
5.13.1	Delete the contents of <b>Sub-Clause 5.13</b> and replace with the following:						
	If the Contractor fails by the Due Completion Date to complete the Works, or any specific portion thereof that is identified in the Scope of Works to the extent which entitles him in terms of Clause 5.14.2 to receive a Certificate of Practical Completion for the Works, then the Contractor shall be liable to the Employer for the sum(s) stated below as (a) penalty/ies for every day which shall elapse between the Due Completion Date for the Works or the specific portion of the Works and the actual Date of Practical Completion of the Works or of the specific portion. The penalty for delay shall be R 21 000 or 0.02% of the Contract Value (excluding VAT) per day; whichever is the higher value." To cover the Employer's Agent Cost for additional Supervision and Additional Services.						
5.14.1	The requirements for achieving Practical Completion are:						
	<ul> <li>Reservoirs - All concrete structures are complete including associated chambers, the Employer's Agent has been provided with all relevant test results including as-built positions; all relevant pressure and water tightness tests have been conducted and passed and have been signed off.</li> </ul>						
	<ul> <li>Water - All pipes, structures and valves etc. are installed and complete; the Employer's Agent has been provided with all relevant test results including as-built positions; The pipes must be functioning in the manner for which they were intended.</li> </ul>						
	When the Works are about to reach the said stage, the Contractor shall, in writing, request a Certificate of Practical Completion and the Employer's Agent shall, within 14 days after receiving such request, either where the Works:						
	Has reached Practical Completion issue a Certificate of Practical Completion to the Contractor and to the Employer; or						
	<ul> <li>Has not reached Practical Completion, issue a written list to the Contractor defining the incomplete work and defects to be rectified to achieve Practical Completion. Should the Employer's Agent not issue a Certificate of Practical Completion or such a list within the 14 days, Practical Completion shall be considered to have been achieved on the expiry of the 14 days of the written request in terms of Clause 5.14.1.</li> </ul>						
5.14.2	Delete the contents of <b>Sub-Clause 5.14.2</b> and replace with the following:						
	"As soon as the work referred to in the list issued in terms of Clause 5.14.1 has been duly completed and defects that manifested after the list was issued rectified, the Employer's Agent shall deliver to						

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording				
	the Contractor and to the Employer a Certificate of Practical Completion together with a further written list setting out the work to be completed to justify the issuing of a Certificate of Completion."				
5.16.3	The latent defect period is <b>ten (10) years</b> , commencing on the day after the date of certification of Practical Completion.				
6.2.1	Add the following to the end of <b>Sub-Clause 6.2.1</b> :				
	<ul> <li>"The security to be provided by the Contractor shall be:</li> <li>A performance guarantee of ten per cent (10%) of the Contract Sum (worded exactly as per the pro forma included in C1.5).</li> <li>The performance guarantee shall be from an approved South African Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Form of Guarantee."</li> </ul>				
6.2.3	Add the following to the end of Sub-Clause 6.2.3:				
0.0.4	The Contractor shall submit proof of renewal to the Employer's Agent.				
6.3.1	Add the following to the end of the Clause:				
	<b>Variations</b> that have a financial implication will be approved by ORTDM in line with their approved Supply Chain Management Delegation of Authority prior to work commencement.				
	<b>Contingencies</b> are under the sole control of the of ORTDM and may be used upon approval by the delegated authority of ORTDM.				
6.5.1.2.1	Add the following to the end of <b>Sub-Clause 6.5.1.2.1</b> :  "Gross remuneration" referred to in <b>Sub-Clause 6.5.1.2.1</b> shall be the nominal hourly or monthly remuneration actually paid to workmen and foremen before any additions for the Contractor's contribution to pension, medical aid, housing, tools, unemployment insurance, site allowance etc., and also before any deductions for tax, pension, medical aid, unemployment insurance, etc."				
6.5.1.2.2	Add the following to the end of <b>Sub-Clause 6.5.1.2.2</b> :				
	"Net cost of materials" referred to in <b>Sub-Clause 6.5.1.2.2</b> shall be the net invoiced cost of materials after the deductions of all discounts, direct or indirect."				
6.5.1.2.3	The percentage allowance to cover overhead charges is 15%.				
6.6.1	The provisional sums stated in the Bill of Quantities are net amounts covering the actual expenditure which the Employer may incur.				
6.7.6 (new)	Add the following sub-clause below 6.7.5:  The Works are measured in accordance with the current SANS 1200 standard specifications and the standard system of measurement of Civil Engineering quantities for South Africa, published by the South African Institution of Civil Engineers. No claims arising from the method of measurement will be entertained.				
6.8.2	Add the following to the end of <b>Sub-Clause 6.8.2</b> :				
	"The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following coefficients// indices / references:				
	The value of "x" is 0.10				
	The values of the coefficients are:				
	a = 0,20 [Labour]				

Clause	Description / Wording						
	b = 0,30 [Contractor's equipment]						
	c = 0,40 [Material]						
	d = 0,10 [Fuel]						
	The relevant geographical area is "Eastern Cape (Province)".  The base month will be the month prior to the month in which tenders close.						
	The definitions of "L"," P"," M" and" F" referred to in Clause 1 of the Contract Price Adjustment Schedule are as follows:						
	<ul> <li>"L" is the "Labour Index" and shall be the "Consumer Price Index" for the urban area nearest to the Site as stated in the Contract Data and as published in the Statistical News Release P0141, Table A of Statistics South Africa.</li> <li>"P" is the "Plant Index" and shall be the "Producer Price Index" for "Plant and Equipment" as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.</li> </ul>						
	• "M" is the "Materials Index" and shall be the "Producer Price Index" for "Civil Engineering Material", for the industry as stated in the Contract Data, and as published in the Statistical News Release P0151, Table 6 of Statistics South Africa.						
	<ul> <li>"F" is the "Fuel Index" and shall be the "Producer Price Index" for "Diesel", for the area as stated in the Contract Data, as published in the Statistical News Release P0142, Table 1 of Statistics South Africa.</li> </ul>						
6.8.3	Price adjustments for variations in the costs of special materials: Not allowed						
6.9.1	Add to Clause 6.9.1:						
	"The Contractor shall where practicable before delivery, and in any event not later than 24 hours after delivery to the Site, inform the Employer's Agent of any materials which are not his sole property."						
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is <b>80%</b> on submission of a payment guarantee.						
6.10.3	The Retention Money shall be 10% (ten percent) of the value of the Works.						
	The "Limit of the retention money" is 5% (five percent) of the Contract Price.						
6.10.4	<b>Replace</b> the wordings "within 7 days" and "within 28 days" in Clause 6.10.4 with the wording "within 5 working days: and "within 30 days".						
6.11	Replace "15 per cent" in the heading, the marginal heading and in the third line after 6.11.1.3 with "20 per cent".						
7.2.1	Add at the end of Clause 7.2.1:						
	"Unless otherwise directed in writing by the Employer's Agent, materials for the Permanent Works shall be new and unused.						
7.4.4.1	Replace the comma after the word "them" in the last line of <b>Sub-Clause 7.4.4.1</b> with a full stop, and replace the word "and" with the following:						
	"The cost of all tests and testing required as part of the Contractor's own quality control programme, whether particularised or not, shall be deemed to have been allowed for in his tender; and"						
7.8	The Defects Liability Period shall be <b>12 (twelve) months</b> , measured from the date of Certificate of Completion.						

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording					
7.8.1	In subclause 7.8.1 delete the following:					
	"(fair wear and tear excepted)"					
7.8.2.2	In subclause 7.8.2.2 add the following:					
	", subject to such work being done on a written instruction by the Employer's Agent."					
8.3.1	Excepted risks					
	In Clause 8.3.1.9 insert at the beginning, "Except where the Contract specifically so provides,".					
8.6.1	Add the following to the end of <b>Sub-Clause 8.6.1</b> :					
	"Insurances shall be maintained in force for the duration of the Contract, and in respect of Sub-Contractors, the Contractor shall be deemed to have complied with the provisions of the requirements relating to insurance by ensuring that the Sub-Contractors have effected such insurances."					
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is <b>NIL</b> .					
8.6.1.1.3	The amount to cover professional fees for repairing damages and loss to be included in the insurance sum is <b>01% (One Percent)</b> of the Contract Price.					
8.6.1.2	Add the following to the end of <b>Sub-Clause 8.6.1.2</b> :					
	"SASRIA (Riot) Certificate to be issued in joint names of Employer and Contractor for the full value of the works (including VAT)."					
8.6.1.3	The limit of indemnity liability insurance shall be Ten Million (R10 000 000.00).					
	Add to Clause 8.6.1.3:					
	"The minimum amount of insurance required in terms of this Clause shall be per event, the nu of events being unlimited.					
8.6.1.5	Add the following to the end of Sub-Clause 8.6.1.5:					
	The Contractor and/or his subcontractors shall provide, and maintain in force for the duration of the contract, the following additional cover:					
	<ul> <li>a) Complying with the provisions of the Compensation for Occupational Injuries and Diseases Act 1993, as amended;</li> </ul>					
	b) Insure all persons employed on the contract who do not fall within the provisions of the Compensation for Occupational Injuries and Diseases Act, against the contractor's Common Law Liability to such employees for the sum of not less than R1 000 000 (one million rand) for any one accident;					
	<ul> <li>c) Motor Vehicle Liability insurance comprising:</li> <li>• Insurance in accordance with the Road Accident Fund;</li> <li>• "Balance of Third Party" Motor Risks including Passenger Liability;</li> </ul>					
	d) "All Risks" insurance on all constructional plant and machinery and allied equipment including all temporary accommodation brought onto site.					
	"Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:					

Clause	MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4  Description / Wording
	a) The insurance policy held by the Contractor shall cover "wet risks" where a portion of the works is subject to possible, occasional or regular inundation."
	b) Where one or more hired vehicles or Contractor's own vehicles are required for the Employer's Agent's site monitoring staff, such vehicles are to be fully comprehensively insured.
	Insurance of all materials stored off Site, and intended for incorporation in the Permanent Works, including their delivery to the Site and off-loading on Site, to the value of such materials for which payment is made in terms of Clause 6.10.1.1 hereof.
8.6.5	In the second line of <b>Sub-Clause 8.6.5</b> , after the word "effected" add the words "in the joint names of the Employer and the Contractor"
	Add the following to the end of <b>Sub-Clause 8.6.5</b> :
	"The insurance policy shall contain a specific provision whereby cancellation of the policy prior to the end of the period referred to in Cause 8.2.1 cannot take place without the prior written approval of the Employer."
	"The Employer shall approve (or disapprove) the terms of the insurances within fourteen (14) days from the date of receipt of the policies provided in terms of Clause 8.6.5."
8.6.6	Add the following to Clause 8.6.6:
	(a) "The policies and the proof of payment of premiums and continuity of the policies shall be produced within fourteen (14) days.".
8.6.8 (new)	Add the following Clause:
	"In the event of any claim arising under the policies held in terms of this Clause, the Contractor shall forthwith take all necessary steps to lodge his claim on the joint behalf of himself and the Employer, and to secure settlement of such claim, and he shall submit to the Employer's Agent copies of all claims and associated documents.
	The claim submitted by the Contractor shall cover the cost of repairing and making good as required by Clauses 8.2.2.1 and 8.2.2.3.".
9.1.4	Replace the contents of Clause 9.1.4 with the following:
3.1.4	"Up to the time of termination of the Contract by either party in terms of this Clause, or until the Contractor gives notice in terms of this Clause to terminate the Contract and the Contractor is precluded from exercising his right to terminate the Contract because the Employer agrees to bear any resultant additional costs provided for in Clause 9.1.2.2 hereof, the Contractor:
	<ul> <li>a) will be entitled to an extension of calendar time for working days lost as may be approved by the Employer's Agent, and</li> </ul>
	b) will be reimbursed the cost of delays per working day, where the number of working days will be determined pro rata the effect the delays have on the progress of the work as agreed with the Employer's Agent. Payment in full and final settlement will be made at the rates tendered for the payment items specially provided in the Bill of Quantities.
	Where the circumstances described in Clauses 9.1.1 and 9.1.2 are applicable only to a certain portion of the contract, the Employer's Agent will decide after consulting the Contractor, to what extent the Contract as a whole is affected and whether or not a claim in terms of this Clause can be submitted.
	No payment will be made in terms of this Clause after the expiry of the Due Completion Date.

Clause	Description / Wording				
9.2.1.3.2	Add the following to the end of Sub-Clause 9.2.1.3.2:				
	"or to maintain and extend the validity of the performance guarantee until the Certificate of Completion; or"				
9.2.1.3.6	Delete the contents of <b>Sub-Clause 9.2.1.3.6</b> and replace with the following:				
	"Is not executing the Works in accordance with the Contract, or is neglecting or failing to carry out his obligations under the Contract, inter alia to comply with any instruction under Clause 4.2"				
9.2.1.3.9 (new)	Add the following Clause:				
	"The Contractor committed a corrupt or fraudulent act during the procurement process or the execution of the contract.				
9.2.1.3.10	Add the following Clause:				
(new)	An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited the Contractor."				
10.1.1.1	Delete the contents of <b>Sub-Clause 10.1.1.1</b> and replace with the following:				
	"The Contractor shall within 28 days after the commencement of each circumstance, event, act or omission giving rise to such a claim, deliver to the Employer's Agent a written claim, referring to this Clause and setting out:"				
10.1.1.1.3	Delete the contents of <b>Sub-Clause 10.1.1.1.3</b> and replace with the following:				
	"The length of the extension of time, if any, claimed and the basis of the calculation by incorporating the effects of each circumstance, event, act or omission on the critical path of an approved programme, indicating the delay to Practical Completion, and"				
Delete the contents of <b>Sub-Clause 10.1.1.2</b> and replace with the following:					
	"If, by reason of the nature and circumstances of the claim, the Contractor cannot reasonably comply with all or any of the provisions of Clause 10.1.1.1.11 to 10.1.1.1.4 to deliver a claim within the said period of 28 days, he shall:				
10.1.1.2.1	Within the said period of 28 days issue a further notice referring to the relevant notice in terms of Clause 10.1.2 and confirming his intention to make the claim and comply with such of the requirements of Clause 10.1.1.1.1 to 10.1 .1.1.4 as he reasonably can, and				
10.1.1.2.2	As soon as practicable, comply with such of the requirements of Clause 10.1.1.1.1 lo 10.1.1.1.4 as have not yet been complied with."				
10.1.1.3	Delete the contents of <b>Sub-Clause 10.1.1.3</b> and replace with the following:				
	"If the circumstance, event, act or omission relating to the claim are of an ongoing nature:				
10.1.1.3.1	the Contractor shall, within 14 days after the commencement of each circumstance, event, act or omission giving rise to such a claim, deliver to the Employer's Agent a written notice of his intention to submit a claim, referring to this Clause and setting out the particulars of the circumstance, event, act or omission. Provided that the additional payment or compensation or delay that occurred before 14 days prior the date on which the notice in terms of this clause was delivered, shall be deemed to be covered by the rates and/or prices set out in the Pricing Data and the time stated in the Contract Data relating to Clause 5.5.1.				

Clause	Description / Wording				
10.1.1.3.2	The Contractor shall, in addition to delivering the said further notice within 28 days in terms of Clause 10.1.1.2.1, each month deliver to the Employer's Agent, in writing, updated particulars required in terms of Clause 10.1.1.1.1 to 10.1.1.1.4 and, within 28 days after the end of the circumstance, event, act or omission deliver his final claim."				
10.1.1.4	Add the following new Sub-Clause 10.1.1.4:				
	Discussions of claims during site meetings and minutes of such discussions shall not be regarded as a claim or notice by the Contractor of his intention to make a claim unless it is supported by a written submission in terms of Clause 10.1.1.1"				
10.1.2	The Contractor shall issue an early warning notifying to the Employer's Agent as soon as he becomes aware of any circumstance, event, act or omission which could:  a) increase the Contract Prices, b) Delay Practical Completion, or c) Impact on quality, or				
	impair the performance of the Works in use				
10.1.4	If, in respect of any claim to which this Clause refers, the Contractor fails to deliver his claim within the 28 day claim period in terms of Clause 10.1.1.1 or does not deliver a further notice within the period of 28 days in terms of Clause 10.1.1.2.1 or does not deliver his final claim within 28 days after the circumstance, event, act or omission ceased in terms of Clause 10.1 .1 .3.2, the Due Completion Date shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged all liability in connection with the claim.				
	Provided that failure by the Contractor to give an early warning notice in terms of Clause 10.1.2 which an experienced Contractor could have given, the claim shall be assessed by the Employer's Agent and the ruling in terms of Clause 10.1.5 shall be taken into account the lack of mitigation measures employed due the lack of such early warning notice."				
10.3.2	Add the following:				
	Amicable settlement in terms of Sub-Clause 10.4 shall be utilised for all disputes prior to referring any dispute to adjudication				
10.5.1	Dispute resolution shall be by ad-hoc adjudication				
10.5.3	The number of Adjudication Board Members to be appointed is <b>One.</b>				
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be referred to arbitration for final settlement.				
10.10.1	Delete the contents of <b>Sub-Clause 10.10.1</b> and replace with the following:				
	Nothing herein contained shall deprive the Contractor or the Employer of either party's right to institute immediate court proceedings in respect of failure by the Employer or the Contractor, as the case may be, to pay the amount of a payment certificate on its due date, or to pay any amount of retention money on its due date for payment.				
10.10.3	Delete the contents of <b>Sub-Clause 10.10.3</b> and replace with the following:				
.0.10.0	The Adjudication Board, arbitrator and the court shall have full power to open up, review and revise any ruling, decision, order, instruction, certificate or valuation of the Employer's Agent. The Arbitrator and the court shall have full power to and to reconsider any decision by the Adjudication Board relevant to the matter in dispute, and neither party shall be limited in such proceedings before				

Clause	Description / Wording					
	such arbitrator or court to the evidence or arguments put before the Employer's Agent for the purpose of obtaining his ruling, or the Adjudication Board for the purpose of obtaining a decision.					
Refer to	The following additional clause shall apply:					
C.1.3 and	The Contract Participation Goal (CPG) of 20% applies to this bid: 10% of the Contract Value for Direct Participation by local Labour and 10% for Direct Participation by local enterprises.					
C.1.4 (new)	The Targeted SMME Participation Goal is a minimum of 21% of value of work excluding manufacture of pipes, contingencies, and provisional sums.					
	The information provided in Section C.1.3 and C.1.4 of this document shall be contractually binding, and penalties will be imposed as per the Clauses included in the Sections should the tendered participation goals not be achieved.					
11 (new)	Penalty for failure to meet proposed direct participation of targeted enterprise (new clause)  In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be acceptable to the Employer, it shall be liable to pay to the Employer a financial penalty (P) calculated in the following manner:					
	$P = 0.50 \times (L_M - L_A) \times V_A$					
	Where:					
	L <sub>M</sub> = SMME Subcontractors or Local Resources Goal % stated in the Contract Document					
	L <sub>A</sub> = SMME Subcontractors or Local Resources component % which the Employer's Agent certifies as being achieved upon completion of the Contract.					
	V <sub>A</sub> = Award Value (Contract Price exclusive of VAT, all provisional or prime cost sums and allowances for contingencies and escalation)					
	P = Rand value of penalty payable					

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C1.2: CONTRACT DATA (PART 2)

#### PART 2: DATA PROVIDED BY THE CONTRACTOR

Name

Clause	Description / Wording				
1.1.1.9	The Contractor is: (The legal name of the Contractor)				
1.2.1.2	The Contractor's address for receipt of communications and notices is:				
	Address (Postal): Address (Physical):				
	Telephone: Facsimile:				
	Email:				
SNED BY/	ON BEHALF OF TENDERER:				
ned	Date				

Position .....

# O. R. TAMBO DISTRICT MUNICIPALITY CONTRACT NO.: MIS 540 115 D MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C1.3: TENDERER'S DIRECT PARTICIPATION OF TARGETED LABOUR

#### 1. Applicable Standard Specification

The applicable Standard Specification is SANS 10845 – Part 8 (2015): Construction Procurement – Part 8: Participation of targeted labour (local resources) in contracts.

#### 2. Definitions

With reference to clause 3 of SANS 10845-8, the following definitions shall apply to this schedule:

#### 2.1 Targeted Labour

Individuals, employed by the Contractor in the performance of the contract, who are defined as the target group in the contract and who permanently reside in the target area or who are recognised as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

#### 2.2 Target Group

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

- i) 55 % women:
- ii) 55% youth; and
- iii) 2% on persons with disabilities

Target Group specifically excluded contractor's own staff unless such staff are also from the Target Area.

#### 2.3 Target Area

For this project, the target area is defined as the areas within the proximity of the site (Mqanduli, ward 31 (KwaMhaga, Mpandela, KwaSaba, Mandileni, Mkhwezo and China) villages of the King Sabata Dalindyebo (KSD) Local Municipality with potable water.

#### 2.4 Targeted Labour Contract Participation Goal (CPGL)

Sum of the wages (excluding any benefits), for which the Contractor, or any of his/her sub-contractors contracts targeted labour in the performance of the contract, expressed as a percentage of the value of the contract.

#### 2.5 Threshold Value

Sectorial Determined Wage Rate for the Civil Engineering Industry as adjusted from time to time (excluding any benefits). As determined in accordance with the Basic Conditions of Employment Act, 75 of 1977.

#### 2.6 Value of the Contract

The contract sum (accepted contract amount) less allowances for specialist work, provisional sums, contingencies and VAT.

#### 2.7 Labour Maximisation

Labour maximisation shall contribute a minimum of 10% of the value of the contract.

#### 3. Conditions associated with the granting of preferences

The tenderer, undertakes to:

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

- a) engage one or more targeted labour in accordance with the provisions of the SANS 10845-8 as varied in Section 4 hereunder;
- b) accept the sanctions set out in Section 5 below, should such conditions be breached;
- c) complete the Targeted Labour (CPG) calculation form contained in Section 8 below; and
- d) complete the Supporting Contract Participation Goal Calculation contained in Section 9 below.

#### 4. Variations to the targeted construction procurement specification SANS 10845-8

The variations to SANS 10845-8 are set out below. Should any requirements of the variations conflict with the requirements of SANS 10845-8, the requirements of the variations shall prevail.

1) Engage one or more targeted labour in accordance with the provisions of the SANS 1914-4 as varied in section 3 hereunder;

Calculations shall be based as a % of targeted labour costs of the Tender Sum (excluding VAT) and not calculated in accordance with methods 1 or 2 in Annexure G of SANS 10845-8.

#### 5. Labour Intensive Work

#### (a) Competencies of Supervisory and Management

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

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

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / Supervisor	2	Apply Labour-Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	Any one of these 3-unit standards.
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman / Supervisor	4	Implement Labour-Intensive Construction Systems and Techniques	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain	Any one of these 3 unit standards
		Roads and Stormwater Drainage Use Labour-Intensive Construction Methods to Construct and Maintain	
		Water and Sanitation Services Use Labour-Intensive Construction	

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

Personnel	NQF level	Unit standard titles	Skills programme description
		Methods to Construct, Repair and Maintain Structures	
Construction Manager/ Manager (i.e. the Contractor's most senior representative that is resident on the site)	5	Manage Labour-Intensive against this Construction Processes	Skills Programme against this single unit standard

Details of these skills programmes may be obtained from the CETA ETQA manager (e-mail: gerard@ceta.co.za, Tel: 011-265 5900)

#### (b) Employment of unskilled and semi-skilled workers

- (i) Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.
- (ii) The rate of pay shall be as per the latest sectoral determination for the Civil Engineering industry.
- (iii) Tasks established by the Contractor shall be such that:
  - the average worker completes 5 tasks per week in 45 hours or less; and
  - the weakest worker completes 5 tasks per week in 55 hours or less.
- (iv) The Contractor shall revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of (iii) above.
- (v) The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference shall be given to people with previous practical experience in construction and / or who come from households:
  - where the head of the household has less than a primary school education;
  - that have less than one full time person earning an income;
  - where subsistence agriculture is the source of income;
  - those who are not in receipt of any social security pension income
- (vi) The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:
  - 55 % women:
  - 55% youth; and
  - 2% on persons with disabilities.

#### (c) Contract Participation Goals

Established contractors shall only engage supervisory and management staff in labour-intensive works who have either completed

In support of the National Department of Public Works' Expanded Public Works Programme which is aimed at the alleviation of poverty through the creation of employment opportunities, the Employer is seeking to increase the intensity of labour, as appropriate, in all of its infrastructure sector projects.

It is a requirement of this contract, therefore, that the work be executed in such a manner so as to maximise the use of labour intensive construction methods in order to provide low and semi-skilled employment opportunities.

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To this end, a minimum targeted labour contract participation goal is specified below, which shall be achieved by the Contractor in the performance of the contract, failing which, penalties as described will be applied.

### The specified minimum targeted labour contract participation goal (CPGL) using labour intensive method is 10%

The minimum CPGL is such that the Contractor will have to carry out some of the work that would normally have been undertaken using mechanised construction methods, by using labour intensive construction methods instead. It is left to the discretion of the Contractor to identify suitable work activities for the intensification of labour. The Contractor shall, within 5 working days of being requested in writing by the Employer's Agent to do so, submit details of his/her plan to achieve the minimum CPGL.

#### (d) Training of targeted labour

The Contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the Contract in a manner that does not compromise worker health and safety.

The cost of the formal training of targeted labour, will be funded by the local office of the Department of Labour. This training will take place as close to the project site as practically possible.

The Contractor shall access this training by informing the relevant regional office of the Department of Labour in writing, within 14 days of being awarded the Contract, of the likely number of persons that will undergo training and when such training is required. The Employer and the Department of Public Works (Fax: 012 3258625/ EPWP Unit, Private Bag X65, Pretoria 0001) shall be furnished with a copy of this request.

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

An allowance equal to 100% of the task rate or daily rate shall be paid by the Contractor to workers who attend formal training.

Proof of compliance with the requirements of the above shall be provided by the Contractor to the Employer prior to submission of the final payment certificate.

It is envisaged that all local labour employed on this Contract shall receive a level of training for which they will receive accreditation.

An employee shall, upon termination of his services, be entitled to a certificate of service showing the full names of his employer (i.e. the Contractor) and the employee, the type of work done by the employee, the date of commencement, a record of training received and the date of termination of his services.

#### (e) Generic labour-intensive specification

#### (i) Scope

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

- a) trenches having a depth of less than 1,5 meters
- b) stormwater drainage
- c) low-volume roads and sidewalks

#### (ii) Precedence

Where this Specification is in conflict with any other standard or specification referred to

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in this Contract, the requirements of this Specification shall prevail.

#### (iii) Hand excavatable material

Hand excavatable material is material:

#### a) Granular materials:

- i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or
- ii) where the material is a gravel having a maximum particle size of 10 mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100 mm;

#### b) Cohesive materials:

- i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) where the material is a gravel having a maximum particle size of 10 mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100 mm;

#### Note:

- A boulder, a cobble and gravel is material with a particle size greater than 200 mm, between 60 and 200 mm, and between 2 mm and 60 mm respectively.
- A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil
  comprising a drop weight of approximately 10 kg which falls through a height of 400 mm and drives
  a cone having a maximum diameter of 20 mm (cone angle of 60° with respect to the horizontal) into
  the material being used.

Table 1: Consistency of materials when profiled

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

#### (iv) Trench excavation

Hand excavatable material has to have a consistency of: Granular Materials – Very loose or Loose

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Cohesive Materials - Very soft or Soft

All other consistencies are regarded machine excavatable materials.

Hand excavation only for trenches having a depth of less than 1,5 metres, all other trenches to be done by machine.

#### (v) Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100 mm. Each layer shall be compacted using hand stampers

- to 90% Proctor density:
- b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10 mm and contains no isolated boulders, or
- such that the density of the compacted trench backfill is not less than that of the c) surrounding undisturbed soil when tested comparatively with a DCP.

#### (vi) Excavation

All excavation, as listed under C3.4.2.6(f)(iv) classified as hand excavatable shall be excavated by hand.

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

#### (vii) Clearing and grubbing

Grass and small bushes shall be cleared by hand.

#### (viii) Shaping

All shaping shall be undertaken by hand.

#### (ix) Spreading

All material shall be spread by hand.

#### 6. **Training**

The Contractor shall make allowance for the employment of a CLO in accordance with the following terms of reference

#### 7. **Community Participation**

The Contractor shall make allowance for the employment of a CLO in accordance with the following terms of reference (TOR), and a Graduate Engineer as Clerk of Works (COW).

#### (a) **Terms of Reference of CLO**

The Community Liaison Officer (CLO) will be responsible to the Project Steering Committee (PSC), who will be involved in the appointment of the CLO. The CLO should be the person with a good standing and respect in the local community and would be selected according to the set criteria by the interviewing panel consisting of Local and District Municipality, ISD Consultant, PSC, Ward Councillor and selected local leadership.

Two (2) CLOs will appointed for the period of physical construction, plus a period of 14 days prior to this period.

The period will include times where small team works are busy in the area e.g. chambers, standpipes and reservoirs. The period will end when no further work is required.

The Contractor will provide office space and stationery for the CLO to carry out his / her duties.

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Remuneration for the CLO will be **R8 500 plus R500 for Airtime and Data per CLO per month** for the period of employment. Where the CLO is engaged for part of the month, they shall be paid an equivalent daily amount. The unit for measurement shall be the man-month of CLO employment.

A CLO who fails in their responsibilities may be replaced in consultation with the PSC and ISD Consultant.

The CLO will liaise with the following people in performing these activities:

#### Contractor:

- Organise and assist the contractor in explaining to all workers the labour-based construction model.
- b. Ensure labourers understand their task and the principles behind task work.
- c. Ensure labourers are informed of their conditions of temporal employment.
- d. Attend all site meetings and briefing for work procedures.
- e. Keep written record of interviews and community liaison which should be summarised and included in the monthly progress reports.
- f. Collect monthly welfare reports and submit to social facilitators.
- g. Ensure that contractor's workers are paid what is due to them and in time.
- h. Assist in the recruitment of labour.
- i. Promote and maintain sound relations with community stakeholders and other role players
- j. Screen the supplied labour by the community through Project Steering Committees to ensure compliance with the agreed upon recruitment policy and the government's labour employment targets.
- k. Inform local labour about their conditions of temporary employment, to ensure their timeous availability and inform them timeously when they would be relieved, where the rotation of labour is applicable.
- I. Keep the labour register of labour and manage records of project local labourers and be able to provide reports on employment statistics.
- m. Consult on all decisions regarding local problems and any matters of importance that, in any way will be of relevance to the Contract.
- n. To be on site on a daily basis.
- o. To register concerns / perceptions and raise them in the PSC meetings.
- p. Attend site and PSC meetings to present monthly report on the local community labour involvement and site matters.
- q. Identify possible labour dispute and any disciplinary matter and advise the Construction Manager / foreman and assist in the resolution, where necessary must call for the assistance of the Social Consultant for the resolution of the conflicts.
- r. Assist the contractor in preparing records of project employees. Assist the contractor in making task measurements and the records thereof.
- s. Monitor the production of individual task workers and arrange replacement of those workers who fail to produce a reasonable task output.
- t. Attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- u. Communicate daily with the contractor to determine additional labour requirements with regard to numbers and skills and pass this to the PSC.
- v. Attend weekly meetings with the contractor and make a weekly written report which shall be a prerequisite to being paid.

#### **Social Facilitator:**

- a. Assist in convening of workshops.
- b. Disseminate information to PSC members.

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- c. Articulate implementing agency policies to PSC members.
- d. Communicate labour requirements.
- e. Attend induction training programmes for workers and induct labourers.
- f. Submit monthly welfare reports to the social facilitators PSC.
- g. Communicate labour and skills requirements to the PSC.
- h. Assist in the recruitment and engagement of work force.
- i. Verify labour records and ensure all engaged qualify as per the Contract requirements.
- j. Investigate and report all labour dispute matters to the PSC, advise Construction Manager on resolution.

The residents of each village being served by the scheme are represented by a PSC. All liaison with the community and the committees is the responsibility of the Social Facilitator in conjunction with the Project Manager. The Contractor will be required to liaise through them for any matters to do with the community.

#### (b) Graduate Engineer (Clerk of Works)

The Contractor shall employ, for the duration of the contract, a Graduate Engineer (National Diploma or BTech) for the duties of a Clerk of Works (COW). The PSC will provide a list of suitable candidates which will be interview by the Contractor before selecting a suitable person. If this person has never done similar work before the Contractor must make allowance to train the person. The Graduate Engineer will be responsible to the Contractor and a short-term contract must be set up to formalise the conditions of the appointment.

The contractor will provide office space, stationery and all other tools and equipment for the COW to carry out his / her duties.

At completion of the contract the Contractor must provide the Graduate Engineer with a certificate of service.

Remuneration for the Graduate Engineer will be **R 6 500 per month for the period of employment**. Where the COW is engaged for part of the month, they shall be paid an equivalent daily amount. The unit for measurement shall be the man-month of Graduate Engineer employment.

The Graduate Engineer shall be trained and mentored in:

- Contract Administration
- Quality Control
- · Measurement of Works,
- Site Management System
- Survey

A Graduate Engineer who fails in their responsibilities as outlined in the agreement, may be replaced in consultation with the PSC and ISD.

#### 8. Sanctions

In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be acceptable to the Employer, it shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = 0.5 X (D-D_0)x C_A (100)$$

Where:

D = tendered Contract Participation Goal percentage.

D<sub>0</sub> = the Contract Participation Goal which the Employer's representative certifies,

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based on the credits passed, as being achieved upon completion of the contract.

C<sub>A</sub> = Contract Amount

P = Monetary value of penalty payable

#### 9. Tender Contract Participation Goal in respect of targeted labour and local enterprises

I/We hereby tender a Contract Participation Goal of 20% (minimum: 21%) in compliance with the Employer's Socio-Economic Requirements.

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the firm or sole proprietor confirms that he/she understands the conditions under which such preferences are granted.

Signature:
Name:
Ouly authorised to sign on behalf of:
Felephone:
=ax:

#### 10. Supporting Targeted Labour (CPG) calculation

TYPE OF TARGETED LABOUR	WORKING HOURS	RATE	TOTAL WAGE COST
Permanent labour*			
Temporary labour			
SMME labour			
Local Enterprises			
		TOTAL	

\*Note: A tenderer may only claim permanent staff as eligible for preference points if said staff are also from the Target Area. Permanent staff are considered to be those who have been continuously employed by the tenderer for at least three months prior to the commencement of this project.

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#### C1.4: SPECIFICATION FOR SMME SUB-CONTRACTOR EMPLOYMENT

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#### Revision list

#### Rev 0.1

- Change SAFCEC Subcontract Agreement to General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments
- Change SMME Eol document compiler from Employer's Agent to the Main Contractor

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#### **ACRONYMS**

CIDB - CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

CM - CONSTRUCTION MANAGER (MENTOR)
ECSA - ENGINEERING COUNCIL OF SOUTH AFRICA

GCC - GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS

EA - EMPLOYER'S AGENT

MC - MAIN CONTRACTOR (MENTOR)
PM - PROJECT MANAGER (MENTOR)
PMT - PROJECT MANAGEMENT TEAM

SAICE - SOUTH AFRICAN INSTITUTION OF CIVIL ENGINEERING

SARS - SOUTH AFRICAN RECEIVER OF REVENUE
SMME - SMALL MEDIUM & MICRO ENTERPRISE
SANS - SOUTH AFRICAN NATIONAL STANDARDS

#### 1 DEFINITIONS AND INTERPRETATIONS

For the purposes of this section of the Project Specification, the definitions given in the General Conditions of Contract for Construction Works 3<sup>rd</sup> Edition 2015, the Standard Specifications and the Project Specifications, together with the following definitions shall apply:

- a) Main Contract: Any contract for the execution of civil engineering or building or similar construction works, in which the liabilities and responsibilities of the two parties thereto are assigned essentially in a manner which is consistent with that set out in the General Conditions of Contract for Construction Works 3<sup>rd</sup> Edition, 2015.
- b) Project Management Team (PMT): A team that is set up after award of the contract, consisting of a delegate from each of the Main Contractor, the Employer's Agent and the Employer. The function of the PMT will be to consult regarding the management of the subcontracts involving SMMEs. The PMT will also evaluate the Main Contractor's performance regarding the goals set for SMME involvement. The Employer's Project Manager will decide which party is to chair and lead the team. Minutes of these meetings will be taken by the Employer's Agent.
- c) SMME Construction Manager: Person provided by Main Contractor to guide, assist and mentor all eligible potential SMMEs tendering and awarded a contract as SMME Sub-Contractors as per section 2.2 of this section of the Specification.
- d) Small, Medium and Micro Enterprises: An Affirmable Business Enterprise which adheres to statutory labour practices, is a legal entity, registered with SARS and the Compensation Commissioner or FEMA and continues to operate as an independent enterprise for profit.
- e) SMME Sub-Contractor: An Emerging Contractor referred to as an SMME and chosen by the Main Contractor to tender for and, if successful, to provide works as part of the total service required by the Employer for the Contract.
- f) Sub-Contractor: A Contractor who contracts with the Main Contractor to provide works as part of the total services required by the Employer for that Contract.
- g) SMME Package: Specified work package identified for execution by SMMEs. The identifiers are Employer, Employer's Agent and Main Contractor.
- h) Joint Venture: An association of firms, companies or businesses for which purpose they combine their expertise, efforts, skills and knowledge to execute the Contract.

#### 2 SMME TENDER PHASE

#### 2.1 Identification of SMME Contractors

"Immediately upon the award of the Contract the Main Contractor in conjunction with the Employer and the Employer's Agent shall place an advertisement for Expressions of Interest for CIDB class CE SMME contractors to undertake part of the Works. It is intended that SMME subcontracts shall be issued covering certain items of the work which will be identified as set out below."

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#### 2.2 Identification of Works Opportunities

General items to be considered as possible work packages for the sub-contractors are listed below. These packages are not all inclusive and contractors are encouraged to exceed the minimum requirements.

Specific work items to be performed by subcontractors will be agreed to post-award. It remains the main contractor's responsibility to ensure compliance with the stipulated contract participation goals.

- Site clearance
- Hand excavation
- · Construction of chambers
- Installation of valve and pipeline markers
- Fencing
- Village reticulation

#### 2.3 Tender process for SMMEs

"Potential SMME Sub Contractors shall be invited to tender for each work package."

#### 2.4 Compilation and issue of tender documents

The Main Contractor supported where required by the Employer's Agent shall compile the tender documents in such a manner that it will facilitate the achievement of all objectives and principles pertaining to procurement and development of SMMEs as stated in or as may reasonably be inferred from the conditions of this contract.

All tender documentation shall be reviewed, approved and issued by the Main Contractor with all copies of tender documents compiled deemed to be included in the tendered rates or mark-up provision allowed for the various SMME work packages. The tender or quotation document will be issued to invited SMMEs at NO COST and the Main Contractor is to make allowance for such cost in his tendered rates.

#### 2.5 Site Briefing Session

The Main Contractor shall facilitate a Site Briefing Session for the invited SMMEs. The Main Contractor will also make sure that all relevant parties including the PMT are present and given an opportunity to present specific aspects of the requirements pertaining to their tender requirements.

#### 2.6 Pre-Tender Assistance to the SMMEs

At the briefing session, the Main Contractor assisted by the PMT will be responsible for ensuring that prospective SMME Tenderers fully comprehend the:

- i. implications of the liabilities and responsibilities inherent in the subcontract applicable;
- ii. scope and extent of the portion of the works included in the subcontract;
- iii. the requirements for quality control of works;
- iv. the requirements for occupational health and safety;
- v. proper procedures for the submission of the tenders;
- vi. procedures and basis on which tenders will be adjudicated and the subcontracts awarded.

#### 2.7 Adjudication

- a) The Main Contractor shall receive all tenders at a location identified by him. All sealed tender submissions will be placed in a proper tender box provided by the Main Contractor for this purpose. A submission register will be maintained by the Main Contractor for all tenders received.
- b) All tenders received shall be evaluated by the Main Contractor for final approval. The draft tender evaluation report shall be distributed to the PMT members 5 working days prior to the PMT meeting for comments and perusal in order to finalise the evaluation before the meeting. The format of the tender evaluation report must be agreed upon at the first PMT meeting.

The evaluation of the Occupational Health and Safety plans will be done by the Main Contractor SHE Officer.

- c) The PMT shall have the right to interview any tenderer for the purpose of:
  - clarifying any aspect of the tender;
  - querying abnormally high or low rates and prices, and
  - clarifying rates and prices which are not in balance with other tendered rates and prices.

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d) The Main Contractor shall provide all reasonable opportunity to such tenderers who have been interviewed, to correct obvious and patent errors, provided always that this can be achieved without altering the total tendered sum.

#### 2.8 Award of Tender

The Main Contractor will award the work with the successful SMME Tenderers, and a Sub-Contract Agreement will be signed between the Main Contractor and the successful SMME Tenderers.

#### 2.9 Sub-Contract Agreement

A Sub-Contract Agreement in accordance with the General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments will be compiled by the Main Contractor with the assistance of the Employer's Agent. They shall be responsible for ensuring that the terms and conditions are consistent with all requirements as specified in or reasonably may be inferred from the provisions of this Contract. All costs associated with the tender process including the conclusion of the agreement are for the Main Contractor's account.

The final terms and conditions of each subcontract agreement shall be subject to the approval of the PMT, prior to entering into the subcontract agreement. The Main Contractor may not enter into any subcontract agreement that contains terms more onerous or disproportionate to the risks inherent in the main contract for either the SMME or the Main Contractor.

The terms and conditions of the subcontract agreement shall specifically ensure that the provisions of the main contract pertaining to:

- a) The allowable sources from which workers may be drawn in terms of the contract;
- b) The terms and conditions relating to the recruitment, employment and remuneration of workers engaged on the contract works;
- c) Any training to be provided to the temporary workforce;
- d) Occupational health and safety; and
- e) The use of labour-intensive methods.

Shall apply in respect of all SMME Contracts.

#### 3 CONSTRUCTION PHASE

#### 3.1 Mentorship

The Main Contractor shall closely manage and supervise and assist all SMMEs in all aspects of management, execution and completion of subcontracts. This shall typically include assistance with planning the works, sourcing and ordering of materials, labour relations, monthly measurements and invoicing procedures, etc. The extent and level of such management, guidance and assistance to be provided by the Main Contractor shall be directed at enabling the SMMEs to achieve the successful execution and completion of the subcontract. Payment for such on-going assistance is deemed included in the rate tendered for the administrative cost of SMMEs.

#### 3.2 Guide, Assist and Mentor SMMEs

The Main Contractor shall employ on a full-time basis an SMME Construction Manager. The CV of the proposed individual must be submitted to the Employer's Agent for approval based on the requirements shown below.

The SMME Construction Manager will manage the SMMEs and report monthly on progress of each SMME to the Project Management Team (PMT).

Such Construction Manager must be adequately experienced with SMME work(s) concern and the development thereof and will be subject to the approval of the Employer. The SMME Construction Manager will render full-time assistance to and mentor the SMMEs and shall:

- i. Possess a minimum of five years site-based experience in the civil engineering construction industry and have a sound knowledge of the minimum requirements to carry out construction work effectively and efficiently.
- ii. Possess 3 years civil engineering administrative experience.
- iii. Be registered with ECSA registration (Engineering Council of South Africa): Pr. Eng or Pr. Tech or SACPCMP (South African Council for the Project and Construction Management Professions) as a Pr. CPM or Pr. CM.
- iv. Would preferably hold a mentoring certificate.

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- Maintain the programme of the subcontract.
- vi. Ensure continuous supervision and assistance to the SMME sub-contractors.

The SMME Construction Manager will report on performance of the SMME on a monthly basis. On completion, the Main Contractor will issue a Final Certificate as given in the General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments within seven days after the final completion.

#### 3.3 Dispute Resolution Procedures

The Main Contractor shall at all times:

- a) Apply the terms and conditions of the subcontract fairly and justly, taking due cognisance of the level of sophistication and experience of the particular SMME concerned, as well as the level of subcontract applicable.
- b) Closely manage and supervise all SMMEs and wherever feasible, shall give reasonable warning to SMMEs when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Main Contractor shall, whenever feasible, give the SMMEs reasonable opportunity to rectify any such contravention or to avoid such contravention and shall render all reasonable assistance to the SMME in this regard.
- c) If no agreement can be reached between the Main Contractor and the sub-Main Contractor, the matter shall be referred to a mutually acceptable mediator as required in the General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments.

When taking any actions or imposing any penalties as are provided for in the subcontract, the Main Contractor shall explain fully to the SMMEs that such actions are provided for in the subcontract.

#### 3.4 Quality of Work and Performance of the Sub-Main Contractor

If the Sub-Contractor, in the opinion of the Main Contractor, fails to comply with the criteria as listed below, the Main Contractor shall issue a written warning to the Sub-Contractor, stating all the areas of non-compliance. A copy of the letter of warning shall be forwarded to the Employer's Agent. These criteria include:

- a) Acceptable standard of works as set out in the specifications in the sub-contract tender document.
- b) Progress in accordance with the time constraints in the Sub-Contractor's tender document.
- c) Punctual and full payment of the workforce and suppliers.
- d) Occupational health and safety compliance.
- e) Compliance with environmental requirements.

The Sub Contractor shall have fourteen (14) days from the date of receipt of the warning letter from the Main Contractor to satisfactorily rectify the issues raised by the Main Contractor, with the exception of point (d) and (e), for which the response time shall be 24 hours. If a satisfactory solution cannot be reached after the mediation process this will be sufficient grounds for the Main Contractor to terminate the contract provided the Project Management Team is satisfied that the Main Contractor has made every effort to correct the performance by the Sub Contractor.

#### 3.5 Payment of SMMEs

- 3.5.1 SMME Sub-Contractors are to be invited to submit their payment certification or claim monthly and are to be paid by the Main Contractor within Thirty (30) days of receipt of invoice.
- 3.5.2 Payment to SMMEs **MAY BE** delayed pending payment of the Main Contractor by the Employer.
- 3.5.3 Payment to SMMEs may not be subjected to set off costs unless provided for in law, and may not exceed 5% of the payment, unless approved by the Employer.
- 3.5.4 Payment to SMMEs may not be discounted for early payment.
- 3.5.5 No interim payment of the SMME invoice may be unfairly withheld or delayed for whatever reason.
- 3.5.6 The Main Contractor must acknowledge and honour cessions in favour of recognised financiers or suppliers of the SMME if presented to the PMT and approved.

#### 3.6 Main Contractor's Liability

No provision or requirement set out in this specification shall be deemed to relieve the Main Contractor of any liability or obligation under the contract, and in accordance with the provisions of Clause 4.4 of the General Conditions of Contract for Construction Works 2015, the Main Contractor shall be fully liable for the acts, defaults and negligence of any

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

SMMEs, his agents or employees, as fully as if they were the acts, defaults and negligence of the Main Contractor, his agents or employees save as specified in the General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments.

Any failure or neglect by the Main Contractor to comply with the provision of the specifications, or any omission or neglect by the Main Contractor in adhering to or applying the principles as are described and inherent in the specifications, shall be deemed to constitute a warrant for the Employer's Agent to act in terms of Clause 9.2 of the General Conditions of Contract for Construction Works 2015.

#### 3.7 Performance Guarantee

The following Performance Guarantees will be applied on the SMME Sub Contracts:

3.7.1	up to R1 000 000	shall be zero percent	(0%);
3.7.2	R1 000 001 to R4 000 000	shall be five percent	(5%);
3.7.3	Exceeding R4 000 000	shall be ten percent	(10%)

All the above will be of the accepted SMME Sub-Contract Value and will be required from SMMEs as stated in the General Conditions of Subcontract for Construction Works, SAICE, First Edition 2018 including all amendments.

Where such guarantees are provided by SMME, the return of same will be related to the time when the work carried out by the SMME is complete to the satisfaction of the Main Contractor and the Employer's Agent.

#### 3.8 Retention

Five percent (5%) of the Sub-Contract Value (excluding VAT) will be deducted as retention on SMME, with half to be released on issue of the Completion Certificate for the specific SMME Sub-Contract with the remaining retention released on issuing of the Final Approval Certificate after the twelve (12) months Defects Liability Period. This deduction will be made from each payment certificate till it reaches the maximum of 5% of the Sub-Contract Value.

#### 3.9 Measurements

An item has been measured in Bill of Quantities allowing the Main Contractor to price for the cost of the Main Contractor to manage and supervise the SMMEs during the execution of their works. The price tendered will be deemed to include all incidentals by the Main Contractor to comply with the conditions of this specification. No other claims will be entertained should SMMEs affect the contract works in any way, and the Main Contractor shall deem to include such effects in the handling cost percentage for the different SMME work packages above.

#### 3.10 Sub-Contracting by SMME

The Main Contractor shall not permit SMME Sub-Contractors to further subcontract on any other conditions than those applying in the project specification to Sub-Contractors or SMME Sub-Contractors.

#### 3.11 Joint Venturing & Consortium

The Main Contractor shall not permit the SMME Sub-Contractors to enter into a Joint Venture or form a consortium with an external SMME(s) unless PMT approves so before the tender award. The SMME may only be allowed to enter into Joint Venture or form a consortium with the other invited SMME(s) on the package concerned.

#### 4 PORTFOLIOS OF EVIDENCE & UP-GRADE SUPPORT

#### 4.1 Keeping of Records

The Main Contractor shall assume responsibility for the compilation and maintenance of comprehensive records detailing each SMME's progress during the construction period, starting from the award of a subcontract to an SMME until the successful completion of the subcontract work or termination of the subcontract. To this end the Main Contractor shall arrange for the completion, on behalf of the SMME Sub Contractor, of the Employer's pro-formas to be provided by the Employer at award of the Main Contract. The Main Contractor must also keep a register of the details of each SMME engaged.

The Main Contractor shall keep comprehensive records of the training given to each trainee and SMME, at the successful completion of each course; each trainee shall be issued with a certificate indicating the course contents as proof of attendance and completion. The Main Contractor shall keep a register of certificates issued. Whenever required, the Main Contractor shall provide copies of such records to the Employer's Agent.

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### 4.2 Monthly Returns

The Main Contractor's participation performance will be measured monthly in order to monitor the extent to which he is striving to reach the targets in this contract. The Main Contractor shall complete and return on a monthly basis the following pro-forma forms of the Employer (to be provided by the Employer at award of the Main Contract):

- Report on employment.
- Report on the SMME's Plant and Equipment.
- Report on progress against programme.
- · Report on financial status.
- Report on engineering training.
- Report on development training.
- · Report on safety training.

The completed forms shall be presented to the Employer's Agent at each site meeting. Failure to adhere to this requirement shall result in the delay of any payment due until the Employer's Agent confirms that the forms have been received.

#### 4.3 Main Contractor's duties upon completion of each sub-contract

The Main Contractor shall, on completion of each and every subcontract completed in accordance with the provisions of this specification, issue free of charge to the SMME within 7 (seven) days of the completion of the subcontract, a Certificate of Experience on a single A4 page containing the following:

- a) Contract data:
  - i. Contract title;
  - ii. Main Contractor's full name and address;
  - iii. Employer's Agent's name and address;
  - iv. Employer's name and address.
- b) Subcontract data:
  - i. SMME name and address:
  - ii. Scope or extent of the subcontract works;
  - iii. Value of the subcontract works;
  - iv. Applicable level of the subcontract;
  - v. Duration of the subcontract;
  - vi. Date of completion of the subcontract;
  - vii. Description of the training undergone by the SMME.

In addition, the SMME Construction Manager must provide comments of the performance of the SMME Sub Contractor in respect of contract execution, Labour management and OHS principles.

c) Certifying the SMME's successful completion of the subcontract.

#### 5 MEASUREMENT AND PAYMENT

5 WILASONLIVIENT AND PATWIENT	
Payment Ref	Unit
SM10.01 Provision of an SMME Construction Mai	nagerMonth
The monthly tendered rate must include for all costs at the SMME Sub Contractors, including salary, accomm	arising from the full-time mentoring, guidance and supervision of nodation, transport and all other expenses incurred.
SM10.02 Expressions of Interest for SMME's	
The tendered sum must include all costs incurred in evaluation of the replies for presentation to the PMT.	the preparation of the expressions of interest, advertising and
SM10.03 Tenders for SMME's	

Payment under this item shall be the number of SMME sub contract, tender processes which the Contractor carries out. The tendered rate shall include full compensation for the compilation and issue of tender documents, tender invitation, training and provision of assistance to tenderers, evaluation of tenders and award of sub contracts.

SM	10.04	Administrative costs of mentoring SMME Sub Contractors
not	includ	ered sum must include for all costs incurred in the administration of the mentoring of SMME Sub Contracts but ing the costs of the duties of the SMME Construction Manager or normal site supervision and administration These could include the costs of outside specialists such as estimators, OHS or environmental specialists.
		Preliminary and General costs associated with SMME's and fluctuation between the Contractor's rates and the rates of SMME subcontractorsProvisional Sum (Prov. Sum)
Mea	asuren	nent and payment shall be in accordance with the provisions of clause 6.6 of the Conditions of Contract.
		ractor shall, for inclusion in his monthly certificate, produce a schedule of work packages undertaken by SMME actors, clearly indicating the P&G costs incurred which shall be limited to 20% of each SMME package.
will	be in	sional sum makes provision for the SMME subcontractor's establishment on site and general obligations, which cluded in the SMME subcontractors' contracts, and for funds to deal with the fluctuations between the r's tendered rates and the rates of the approved SMME subcontractors."
SM	10.06	Handling Costs and Profit Associated with SM10.05Percentage (%)
		ractor is required to calculate the total percentage mark up for his handling costs and profit on Item SM10.05 all be claimed monthly under this pay item.
6		FINANCIAL PENALTY
to q	uantita	ent that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal was due ative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be e to the Employer, it shall be liable to pay to the Employer a financial penalty (P) calculated in the following
Р	= (	$0,50 \times (L_M - L_A) \times V_A$
Wh	ere:	
$L_M$	=	SMME Subcontractors or Local Resources Goal % stated in the Contract Document
LA	=	SMME Subcontractors or Local Resources component % which the Employer's representative certifies as being achieved upon completion of the Contract.
VA	=	Award Value (Contract Price exclusive of VAT, all provisional or prime cost sums and allowances for contingencies)
Р	=	Rand value of penalty payable
7		ACCEPTANCE OF THE SMME SUB-CONTRACTOR SPECIFICATION
		rsigned, who warrants that he/she is duly authorised to do so on behalf of the firm or sole proprietor. hat he/she understands the conditions under which such preferences are granted.
Sig	nature	:
Nar	ne:	
Dul	y auth	orised to sign on behalf of:
Tele	enhone	e:

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C1.5: PERFORMANCE GUARANTEE (PRO FORMA)

For use with the General Condition	s of Contract for Construction Works, Third Edition, 2015.
GUARANTOR DETAILS AND DEI	FINITIONS
'Guarantor" means:	
Physical address:	
'Employer" means:	O. R. Tambo District Municipality
'Contractor" means:	
'Employer's Agent" means:	ZIINZAME CONSULTING ENGINEERS CC
Works" means: CONSTRUCTION OF BULK MAIN	MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: I FROM SIHLABENI TO CENTULI - CONTRACT 4: CONSTRUCTION OF 6.5KM-BULK PIPELINE IN WARD 31: CONTRACT 4
Site" means: CONSTRUCTION OF BULK MAIN	MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: I FROM SIHLABENI TO CENTULI - CONTRACT 4: CONSTRUCTION OF 6.5KM-BULK PIPELINE IN WARD 31: CONTRACT 4
Contract" means:	The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.
'Contract Sum" means:	The accepted amount inclusive of tax of R
Amount in words:	
'Guaranteed Sum" means:	The maximum aggregate amount of R
Amount in words:	
Type of Performance Guarantee:	FIXED
Expiry Date" means:	Within 14 days after the issue of the Certificate of Completion by the Employer's

#### **CONTRACT DETAILS**

Employer's Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate Completion of the Works as defined in the Contract.

Agent in terms of Clause 5.14.4 of the General Conditions of Contract.

#### PERFORMANCE GUARANTEE

- 1 The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
- The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Employer's Agent of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
- 3 The Guarantor hereby acknowledges that:

- any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
- 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
- Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
- 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2:
- 4.2 A first written demand issued by the Employer to the guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
- 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
- Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
- 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
- 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
- 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 11 The Guarantor chooses the physical address as stated above for the service of all notices for al purposes in connection herewith.
- This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

- This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at	 	 
Date	 	 
Guarantor's signatory: (1)	 	 
Capacity		
Guarantor's signatory (2)	 	 
Capacity	 	
Witness signatory: (1)	 	 
Witness signatory: (2)	 	 

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#### **C1.6: ADJUDICATION**

Adjudication shall be carried out in terms of Clauses 10.5 and 10.6 of the General Conditions of CONTRACT 2015.

The Disclosure Statement and the Adjudication Board Member Agreement to be used in this Contract are contained Appendices 4 and 5 of the General Conditions of Contract GCC 2015.

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# C1.7: AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT No 85 OF 1993)

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

THIS AGREEMENT is made between
(hereinafter called "the Employer") of the one part, herein represented by
in his capacity as
and
(hereinafter called "the Mandatary") of the other part, herein represented by:
in his capacity as
duly authorised to sign on behalf of the Mandatory.
WHEREAS the Contractor is the Mandatary of the Employer in consequence of an agreement between the Contractor and the Employer in respect of
CONTRACT No:CONTRACT TITLE

for the construction, completion and maintenance of such Works;

AND WHEREAS the Employer and the Mandatary have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatary with the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993);

#### NOW THEREFORE THIS AGREEMENT WITNESSED AS FOLLOWS:

- The Mandatary undertakes to acquaint the appropriate officials and employees of the Mandatary with all relevant provisions of the Act and the regulations promulgated in terms thereof.
- The Mandatary shall execute the work in accordance with the Contract Documents pertaining to this Contract.
- This Agreement shall hold good from its Commencement Date, which shall be the date of a written notice from the Employer or Employer's Agent requiring him to commence the execution of the Works, to either
  - (a) the date of the Final Approval Certificate issued in terms of Clause 5.16.1 (GCC 2015) of the General Conditions of Contract (hereinafter referred to as "the GCC"), or
  - (b) the date of termination of the Contract in terms of Clauses 9.1, 9.2 or 9.3 (GCC 2015) of the

# MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

GCC.

4 The Mandatary declares himself to be conversant with the following	llowing:
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- (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:
  - (i) Section 8 : General duties of employers to their employees;
  - (ii) Section 9 : General duties of employers and self-employed persons to persons other than employees;
  - (iii) Section 37 : Acts or omissions by employees or mandataries, and
  - (iv) Subsection 37(2) relating to the purpose and meaning of this Agreement.
- (b) The procedures and safety rules of the Employer as pertaining to the Mandatary and to all his subcontractors.
- In addition to the requirements of Clause 8.4 (GCC 2015) of the GCC and all relevant requirements of the Contract, the Mandatary agrees to execute all the Works forming part of this Contract and to operate and utilise all machinery, plant and equipment in accordance with the Act.
- The Mandatary is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.
- The Mandatary warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
- 8. The Mandatary undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
  - (a) The Mandatary shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Mandatary shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatary obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
  - (b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Mandatary to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
  - (c) The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Mandatary and/or his employees and/or his subcontractors.

In witness thereof, the parties hereto have set their signatures her witnesses:	eon in the presence of the subscribing
Signature(s) of authorised agents:	Date

Name(s) (in	block letters):
Capacity of	authorised agents:
for and on b	ehalf of the Mandatary(Name and address of organisation)
Witness:	(Full name – in block letters – and signature) (Name)
	(Signature)
Date:	
For and on	behalf of the Employer:
Signature(s)	of authorised agent(s) Date
Name(s) (in	block letters)
Capacity of	authorised agents:
for the Empl	oyer: (Name and address of organisation)
Witness:	(Full name – in block letters – and signature) (Name)
	(Signature)
Date:	

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C2 PRICING DATA

C2.1 Pricing Instructions

C2.2 Bill of Quantities

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

#### C2.1 PRICING INSTRUCTIONS

#### **C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES**

- C2.1.1.1 The Conditions of Contract, the Contract Data, the Scope of Work, the Site Information, and the Drawings shall be read in conjunction with the Bill of Quantities.
- C2.1.1.2 Measurement and payment shall be in accordance with the relevant provisions of clause 8 of each of the SANS 1200 Standardised Specifications for Civil Engineering Construction or the Particular Specifications referred to in the Scope of Work, subject to the variations and amendments contained therein.
- C2.1.1.3 The Bill of Quantities comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.

Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill of Quantities, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Employer's Agent is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Bill of Quantities.

Clause 8 of each Standardised Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Scope of Work, all set out which ancillary or associated activities are included in the rates for the specified operations.

- C2.1.1.4 Descriptions in the Bill of Quantities are abbreviated and comply generally but may differ from those in the Standardised Specifications and Scope of Work. No consideration will be given to any claim by the Contractor submitted on such a basis. The Bill of Quantities has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities<sup>1</sup>. Should any requirement of the measurement and payment clause of the appropriate Standardised or Particular Specifications be contrary to the terms of the Bill of Quantities or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardised or Particular Specification, as the case may be, shall prevail.
- C2.1.1.5 Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.
- C2.1.1.6 The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding Value Added Tax), liabilities and obligations set forth or implied in the documents on which the tender is based.

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<sup>1</sup> The standard system of measurement of civil engineering quantities published by the South African Institution of Civil Engineers.

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

C2.1.1.7 An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.

The Tenderer shall also fill in a rate against the items where the words "rate only" appears in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items be required.

Should the Tenderer group several items together and tender one sum for such group of items, the single tendered sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The tendered rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

C2.1.1.8 The quantities of work, as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Bill of Quantities will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Works Assignment and the quantities certified for payment.

**Ordering of materials** is not to be based on the Bill of Quantities, but only on information issued for construction purposes.

- C2.1.1.9 For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:
  - Unit: The unit of measurement for each item of work as defined in the Standardised or Particular Specifications
  - Quantity: The number of units of work for each item.
  - Rate: The payment per unit of work 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 Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

#### MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

C2.1.1.10 The units of measurement indicated in the Bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1 000 kg)
$m^2$	=	square metre	No	=	number
m <sup>2</sup> .pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	Meganewton
$m^3$	=	cubic metre	MN.m	=	Meganewton-metre
m³.km	=	cubic metre-kilometre	PC sum	=	Prime Cost sum
ł	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	MegaPascal	kW	=	kilowatt
Μℓ	=	Megalitre (1000 kl)	kN	=	kilonewton

#### **CORRECTION OF ENTRIES MADE BY TENDERER**

Any entry made by the Tenderer in the Price Schedule, forms, etc., which the tenderer desires to change, <u>shall not be erased or painted out</u>. A line shall be drawn through the incorrect entry and the correct entry shall be written above in black ink and the <u>full signature</u> of the Tenderer shall be placed next to the correction.

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#### C2.2 PRICING SCHEDULE

MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK

MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

SIGNED BY/ON	N BEHALF C	OF TENDERER				
	NAME		SIGNATURE		DATE	
				]		
		COMI	PANY STAMP			
DECLARATION						
(In respect of co	-	·				
O. R. TAMBO [	DISTRICT M	UNICIPALITY				
Nelson Mandela	a Drive					
Myezo Park						
Mthatha						
of this Contract MIS 540 115	Document D - MQA	ereby declare that thes in consecutive order u NDULI SECONDAR' KMAIN FROM SIHLA	upon which my/our to Y BULK REGIONA	tender for the AL WATER	CONTRACT SUPPLY – I	NUMBER: PHASE 2:
SIGNED BY/ON	N BEHALF C	F TENDERER				
NAME		SIGNATUR	E	DATE		

# O. R. TAMBO DISTRICT MUNICIPALITY CONTRACT NO.: MIS 540 115 D MQANDULI SECONDARY BULK REGIONAL WATER SUPPLY – PHASE 2: CONSTRUCTION OF BULK MAIN FROM SIHLABENI TO CENTULI - CONTRACT 4

### Part C3: SCOPE OF WORK

### O. R. TAMBO DISTRICT MUNICIPALITY

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### **C3.1. DESCRIPTION OF THE WORKS**

#### **STATUS**

In the event of any discrepancy between the Scope of Work and any part of the SANS 1200 Standardised Specifications, the Bill of Quantities or the Drawings, the Scope of Work shall take precedence and prevail in the Contract.

#### C3.1.1 Employer's Objectives

The objective of the Employer (O. R. TAMBO DISTRICT MUNICIPALITY) is to extend the Mqanduli Secondary Bulk Water Supply for additional communities to gain access to water at RDP standards.

Mqanduli Secondary Bulk Water Supply (Phase 2A) is an extension of Phase 1 and Phase 2 and will be supplied from the bulk infrastructure constructed under Mqanduli Secondary Bulk. The water source will be the existing Mthatha River abstraction and Water Treatment Works (WTW).

This CONTRACT 4 intends to complete the supply to communities of ward 31 (KwaMhaga, Mpandela, KwaSaba, Mandileni, Mkhwezo and China) villages of the King Sabata Dalindyebo (KSD) Local Municipality with potable water.

Based on the specific goals, the Employer is aiming to promote enterprises located in Eastern Cape Province and in O. R. Tambo District in particular.

#### C3.1.2 Overview of the Works

This contract entails the construction of Bulk water supply into several villages in ward 31.

#### C3.1.3 Extent of the Works

The Works to be carried out by the **Main Contractor** under this Contract comprise mainly the following:

- a) The supply and laying of Bulk Water Pipelines consisting of the following diameters and approximate lengths:
  - Approximately 1.9 KM mPVC, 355mm diameter, PN 16 Bulk Pipeline
  - Approximately 2.1 KM 350NB x 6m Galvanised Grooved Denso wrap Pipe c/w Coupling & Joint Protection wrap Pipe c/w Coupling & Joint Protection
- b) The construction and installation of isolating valves, air valves, scour valves and the construction of the chambers for the valve assemblies.
- c) The location, protection and connection to existing services such as concrete water reservoirs.
- d) Subcontracting a minimum of 21% of the of value of work excluding manufacture of pipes, contingencies, and provisional sums to SMMEs as per the project specification.

The Works to be carried out by the **Sub-contractor** under this Contract comprise mainly the following:

• Approximately 2.5 KM mPVC, 355mm diameter, PN 16 Bulk Pipeline

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- The construction and installation of isolating valves, air valves, scour valves and the construction of the chambers for the valve assemblies
- e) Dealing with community participation with regards to the construction.
- f) Environmental management of the area during and after the completion of construction.

This description of the Works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract. Approximate quantities of each type of work are given in the Bill of Quantities.

#### C3.1.4 Location of the Works

The Project is located in O. R. Tambo District Municipality within King Sabata Dalindyebo Local Municipality, as illustrated in Figure 1, Appendix A. The location of the site is indicated on the locality plan bound as Appendix A.

#### C3.1.5 Temporary Works

The Contractor will be responsible for determining the extent of temporary works required to execute the contract, and the cost thereof shall be included in the rates for the respective items of work. Nonetheless, it is envisaged that temporary work may be required for the following activities:

- Pipeline trenches requiring shoring due to space and depth constraints.
- Construction of pipelines near existing fences, which must be temporarily removed, will require the erection and maintenance of temporary fencing until restoration of the original fences.
- Construction of pipe trenches near existing properties or through existing accesses may require the provision of temporary access for pedestrians, livestock or vehicles.
- Traffic control measures where construction takes place at or close to existing roads.
- Safety measures deemed necessary by the Health and Safety specification or the Contractor's own risk assessment (e.g. pedestrian barriers).

#### **C3.1.6 Construction Programme**

The programme of construction shall be submitted to the Employer's Agent within the time stipulated in these documents. The programme shall clearly show all activities related to the works and shall indicate which activities are on the critical path.

In compiling the programme, the Contractor shall consider the following:

- The requirements and effects of employing labour-intensive construction methods.
- The lead-time for training of local labour.
- The accommodation and safeguarding of public access and traffic.
- Establishment and de-establishment times.
- Time to obtain all permits and wayleaves.
- Appointment of Community Liaison Officer (CLO).
- All public and Contractor close down periods.
- All other activities required in terms of this document.

If during the contract, the execution of the work deviates in any manner from the programme, the Contractor

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shall, on instruction by the Employer's Agent, within one week of such instruction submit a revised programme. Should such a revision be because of the Contractor falling behind with his work, the programme shall clearly show the steps to be taken to rectify the situation so as to enable the contract to be completed within the stipulated contract period. Positive steps to increase production through increased resources, or the more efficient usage of existing resources shall accompany such a programme. The tender programme shall however be used.

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#### C3.2. ENGINEERING

#### C3.2.1 Design Services and Activity Matrix

Responsibilities for design and related documentation are as follows:

Concept, feasibility and overall process
 Basic engineering and detail layouts to tender stage
 Final design to approved construction stage
 Temporary works
 Employer
 Contractor

Preparation of record drawings and GIS information
 Contractor/Employer

#### C3.2.2 Employer's Design

The Employer's design encompasses the permanent Works described in C.3.1.3 and what is included on the drawings.

#### C3.2.3 Design Brief

The design of the permanent Works is the responsibility of the Employer's Agent.

The Contractor is responsible for the design of the temporary Works required for the construction and execution of the permanent Works.

Where the Contractor is to supply the design of designated parts of the permanent Works or temporary Works, he shall supply full working drawings supported by a professional Employer's Agent's design certificate.

#### C3.2.4 Drawings

The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works and dimensions shall not be scaled from the Drawings, unless required by the Employer's Agent.

The Employer's Agent will, on the request of the Contractor, and in accordance with the provisions of the Conditions of Contract, provide such dimensions as may have been omitted from the Drawings.

The Contractor shall ensure that accurate As-Built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends, and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where necessary, levels shall also be provided.

A marked-up set of Drawings shall be kept and updated by the Contractor on a day-to-day basis. This information shall be supplied to the Employer's Agent Representative on a regular basis.

All information in possession of the Contractor where required by the Employer's Agent and/or the Employer's Agent Representative to complete the As Built/Record Drawings, must be submitted to the Employer's Agent Representative before the Certificate of Completion may be issued.

The Drawings prepared by the Employer for the permanent Works are listed and bound under Appendix J.

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The Employer reserves the right to issue amended and/or additional Drawings during the Contract.

#### C3.2.5 Design Procedures

The Contractor is responsible for the design of all the temporary works required for the construction and execution of the Permanent Works. This includes, inter alia, temporary roads, access control, accommodation of traffic, shoring of trenches and excavations, dewatering, all health and safety measures, environmental management as well as temporary support systems, until the completion of the Contract.

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### C3.3. PROCUREMENT

#### **C3.3.1** Preferential Procurement Procedures

All works to be completed in this contract shall be executed in accordance to the O. R. Tambo District Municipality's preferential procurement policies and procedures.

#### C3.3.2 Subcontracting

#### **C3.3.3** Scope of Mandatory Subcontract Works

Where possible, work that can be subcontracted to EMEs and QSEs is identified and detailed in Part C1, Section C1.4 and in Part C1, Section C1.3, the requirements for the procurement and employment of local labour are specified. It is noted that the work identified in this document is not exhaustive and it shall be required from the Contractor to ensure that a minimum of 21% of the Works is done by local EMEs and QSEs.

No work may be sub-contracted to another party unless approval is given by the ORTDM in writing. The Contractor is to submit to the ORTDM in writing a request for appointment of a particular sub-contractor. Accompanying this request is to be the full detail of the sub-contractor, including:

- Previous experience.
- Work which will be sub-contracted to him/her.
- Approximate value of the work to be sub-contracted.

#### C3.3.4 Preferred Subcontractors / Suppliers

The Contractor will be required to liaise with the Employer, Employer's Agent and local community structures to finalise the list of local EMEs and QSEs to be employed as part of the project.

#### C3.3.4.1 Subcontracting Procedures

A formal tender process will be followed to appoint the Subcontractor which will be facilitated by the Employer, Employer's Agent and Main Contractor.

All subcontractors appointed under **C3.3.2.1** above shall be:

- Registered with the CIDB
- Allocated work within the category and value limits designated by their CIDB grading
- Be in good standing with the Department of Labour
- Registered on the Central Supplier Database.

Proof of the above is to be provided to the Employer's Agent before appointment of the subcontractor.

#### C3.3.5 Attendance on subcontractors

The Contractor shall guide, assist, advise and mentor the local EME and QSE subcontractor/s and guidance on how to establish and determine rates.

The Contractor shall be responsible for ensuring that the prospective local EME and QSE subcontractor/s fully comprehends the:

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- Implications of the liabilities and responsibilities inherent in the contract into which the tenderer entered.
- Implications of the tendered rates.
- Scope and extent of the Works.
- Proper procedures for the submission of a tender.
- Procedures and basis on which tenders will be evaluated and awarded.

The Contractor shall closely manage, mentor, supervise, guide and assist the EEs in all aspects of management, planning, execution and the completion of work.

The above shall include inter alia, but is not limited to, the following:

- (i) Planning and programming of the Works.
- (ii) The sourcing, ordering, purchasing, hiring all the necessary Construction Equipment, Materials, tools and incidentals necessary and required for the successful execution and completion of the Permanent as well as the Temporary Works.
- (iii) Labour relations and employment.
- (iv) Monthly measurements, costing and invoicing.
- (v) General safety, occupational health and safety matters.
- (vi) Functions of civil engineering infrastructure, structures, services and systems.
- (vii) Interpreting and understanding the contract.
- (viii) Construction and maintenance methods and procedures.
- (ix) Communication.
- (x) Cash-flow control, submitting invoices and payment certificates.
- (xi) Planning, programming, scheduling, critical path control and acceleration.
- (xii) Maintenance planning.
- (xiii) Material procurement and control.
- (xiv) Risk limitation and management.
- (xv) Quality assurance and procedures.
- (xvi) Compliances with all applicable laws, regulations, statutory provisions and agreements.
- (xvii) General Conditions of Contract and Contract Data.
- (xviii) Contractual claims, if situations arise that entitle a contractor to claims in terms of the Conditions of Contract.
- (xix) Profit and loss.
- (xx) Replacement and running costs of Construction Equipment.

The extent and level of management, mentorship, supervision, guidance and assistance to be provided by the Contractor shall be in commensuration with the expertise of the relevant EME and QSE and should be so directed as to enable the EME and QSE to achieve the successful execution and completion of the respective works.

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#### C3.4. CONSTRUCTION

#### C3.4.1 WORKS SPECIFICATIONS

#### C3.4.1.1 Applicable SANS 1200 Standardised Specifications

The SANS 1200 Standardised Specifications for civil engineering construction that are applicable are listed in C3.7.1.

#### C3.4.1.2 Particular Specifications

The Particular Specifications for work not covered by the SANS 1200 Standardised Specifications are listed in C3.7.1 and included in C3.7.3.

#### C3.4.1.4 Variations and Additions to the SANS 1200 Standardised Specifications

Variations and additions to the SANS 1200 Standardised Specifications listed in C3.7.1 are given in section C3.7.2.

#### C3.4.2 SITE ESTABLISHMENT

#### C3.4.2.1 Services and facilities provided by the Employer

#### **Water Sources** (a)

The Contractor shall make his own arrangements regarding the supply of water.

The Contractor shall, in accordance with the provisions of subclause C3.4.2.2(b), and at his own expense, make all arrangements necessary for the supply and distribution of water as may be required for the purposes of executing the Contract, including water for both construction purposes and domestic use as well as for making all arrangements in connection therewith.

The Contractor shall further, at his own expense, be responsible for providing all necessaries for procuring, storing, transporting and applying water required for the execution of the Contract, including but not limited to all piping, valves, tanks, pumps, meters and other plant and equipment, as well as for all work and superintendence associated therewith. Payment for the aforementioned shall be deemed to be covered by the rates and prices tendered and paid for the various items of work included under the Contract.

The Contractor shall make himself thoroughly acquainted with the regulations relating to the use of water and shall take adequate measures to prevent the wastage of water.

The sources of all water utilised for the purposes of the Contract shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld. The Contractor shall comply with all prevailing legislation in respect of drawing water from natural and other sources and shall, when required by the Employer's Agent, produce proof of such compliance.

The distribution of water shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations. All water provided by the Contractor for construction purposes shall be clean, free from undesirable concentrations of deleterious salts and other materials and shall comply with any further relevant specifications of the Contract.

The Contractor shall, whenever reasonably required by the Employer's Agent, produce test results

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demonstrating such compliance. Water provided by the Contractor for human consumption shall be healthy and potable to the satisfaction of the health authorities in the area of the Site.

The Employer accepts no responsibility for the shortage of water due to any cause whatsoever or for the additional costs incurred by the Contractor as a result of such shortage.

#### (b) **Power / Electricity Supply**

The Contractor shall make his own arrangements with the Electricity Department for a supply of electricity if required and shall pay establishment and consumption costs at the tariffs ruling at the time.

The Contractor shall, in accordance with the provisions of subclause C3.4.2.2(c), and at his own cost, make all arrangements necessary for the supply and distribution of electrical power required for construction purposes as well as for use in and about his site establishment.

The Contractor shall comply with all prevailing legislation in respect of the generation and distribution of electricity and shall, when required by the Employer's Agent, produce proof of such compliance.

No separate payment will be made to the Contractor for the obtainment, distribution and consumption of electricity, the costs of which will be deemed to be in the Contractor's tendered rates and prices.

#### (c) **Excrement Disposal / Sanitary Facilities**

The Contractor shall, in complying with his obligations in terms of subclause C3.4.2.2(d), at his own cost, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, all to the satisfaction of the responsible health authorities in the area of the Site.

All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site. The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

The Contractor shall further, as a minimum, supply and maintain chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site.

Under no circumstances will the Contractor's staff be allowed to use any other toilet facilities in and around the Site.

#### (d) **Disposal Site**

All material cleared on the site, rubble, spoil and refuse shall be disposed of at the one of the municipal solid waste sites. Hazardous material shall only be disposed of at the waste site with Waste license issued by the Department of Environmental Affairs.

These are dedicated disposal sites and therefore no separate overhaul shall be paid. The Contractor shall pay all charges levied at the waste site and must make allowance in his rates to cover these charges as no separate payment will be made in this regard.

#### Area for Contractor's site establishment (e)

The Employer has no suitable areas available where the Contractor may erect offices, workshops, stores

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and other facilities that he requires for the purposes of the Contract. The Contractor shall, at his own cost, be responsible for locating and making all arrangements necessary for securing an area suitable to meet his needs in respect of the erection of the Contractor's offices, stores and other facilities, including the facilities to be provided for the Employer's Agent in accordance with the Contract.

Any potential area proposed by the Contractor shall be within reasonable proximity to the Site of the Works and its location shall be subject to the approval of the Employer's Agent, which approval shall not be unreasonably withheld.

The Contractor shall be responsible for arranging, at his own cost, for the provision of all services he may require in the area, as well as elsewhere on the Site.

### (f) Accommodation of employees

The Contractor shall make his own arrangements for the accommodation of his employees. Where field accommodation is required, the Contractor shall comply fully with the wishes of the various landowners, as in their agreement with the Employer, to the satisfaction of both land owner and Employer.

#### C3.4.2.2 Facilities provided by the Contractor

The Contractor shall provide for the use of the Employer's Agent, maintain and service, as applicable, the following facilities as specified in SANS 1200 AB and PSAB.

#### (a) Facilities for the Employer's Agent

The Contractor shall provide on the Site, for the duration of the Contract and for the exclusive use of the Employer's Agent and/or his Employer's Agent's Representative (as applicable), the various facilities described hereunder. All such facilities shall be provided promptly on the commencement of the Contract and failure on the part of the Contractor to provide any facility required in terms of this specification shall constitute grounds for the Employer's Agent to withhold payment of the Contractor's tendered Preliminary and General items until the facility has been provided or restored as the case may be.

#### (i) Contract Nameboard

The Contractor shall provide, erect and maintain 2 No. of Contract Nameboards at such positions and locations as directed by the Employer's Agent. The Contractor shall, before ordering or manufacturing any such Contract nameboards, obtain the Employer's Agent written approval in respect of all names and wording to appear on the Contract nameboards. The Contractor shall keep the Contract nameboard in good state of repair for the duration of the Contract and shall remove them on completion of the Contract.

#### (ii) Health and Safety Sign Board

The Contractor shall erect and maintain 1No. of Health and Safety Sign Board at such positions and locations as directed by the Health and Safety Agent and the requirements specified on the Health and Safety Plan.

#### (iii) Office building

The Contractor shall provide on the Site an office for the exclusive use of the Employer's Agent and his Representative. Such office shall comply with and be furnished in accordance with the requirements of subclause 3.2 of SANS 1200 AB and PSAB. The Contractor shall maintain the office in accordance with the requirements of subclause 5.2 of SANS 1200 AB.

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

#### (iv) Site Meeting venue

The Contractor shall provide within his own site establishment facilities, a suitably furnished office or other venue capable of comfortably accommodating a minimum of **fifteen** (15) persons at site meetings. The Employer's Agent shall be allowed free use of such a venue for conducting any other meetings concerning the Contract at all reasonable times.

#### (v) Survey equipment and assistant(s)

The Contractor shall, for the duration of the Contract, in accordance with the requirements of PSAB provide survey equipment for the exclusive use of the Employer's Agent and his staff.

The Contractor shall, in accordance with the requirements of subclause 5.5 of SANS 1200 AB, make available to the Employer's Agent, two (2) survey assistants.

#### (vi) Site Instruction Book

The Contractor shall keep a triplicate book for site instructions on the Site at all times.

#### (b) Water

The Contractor shall, at his own expense, be responsible for obtaining and distributing all water as may be required for the purposes of executing the Contract, including water for both construction purposes and domestic use, as well as for making all arrangements in connection therewith.

The Contractor shall further, at his own expense, be responsible for providing all necessaries for procuring, storing, transporting and applying water required for the execution of the Contract, including but not limited to all piping, valves, tanks, pumps, meters and other plant and equipment, as well as for all work and superintendence associated therewith.

The sources of all water utilised for the purposes of the Contract shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld.

The Contractor shall comply with all prevailing legislation in respect of drawing water from natural and other sources and shall, when required by the Employer's Agent, produce proof of such compliance. The distribution of water shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations.

All water provided by the Contractor for construction purposes shall be clean, free from undesirable concentrations of deleterious salts and other materials and shall comply with any further relevant specifications of the Contract. The Contractor shall, whenever reasonably required by the Employer's Agent, produce test results demonstrating such compliance. Water provided by the Contractor for human consumption shall be healthy and potable to the satisfaction of the health authorities in the area of the Site.

No separate payment will be made to the Contractor for the obtainment, distribution and consumption of water, the costs of which will be deemed to be included in the Contractor's tendered rates.

#### (c) Electricity

The Contractor shall, at his own expense, be responsible for obtaining and distributing all electricity as he may require for the purposes of executing the Contract, including electricity for both construction purposes and domestic use, as well as for making all arrangements in connection therewith.

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The distribution of electricity shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations.

No separate payment will be made to the Contractor for the procurement, distribution and consumption of electricity, the costs of which will be deemed to be in the Contractor's tendered rates and prices.

#### **Excrement disposal** (d)

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, to the satisfaction of the responsible health authorities in the area of the Site and the Employer's Agent. All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site.

The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

No latrines are available and therefore the Contractor shall supply portable chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site. Under no circumstances will the Contractor's staff be allowed to use private or public toilet facilities.

The Contractor shall provide water and soap for his staff to be able to wash with at each site of the Works. The waste water shall be disposed of off-site.

No separate payment will be made to the Contractor in respect of discharging his obligations in terms of this subclause and the costs thereof shall be deemed to be included within the Contractor's tendered Preliminary and General Items.

#### C3.4.2.3 Site Usage and Security on site

Access to site shall be limited to the Contractor and his personnel. The Contractor shall be responsible to control unauthorised entry to the site and shall inform the Employer's Agent of any breach of such rules. The site shall be managed and used for its intended purpose. The Contractor is required to keep a visitors log and ensure full compliance with site safety standards.

The Contractor shall make provision for security on site against theft and robbery, as his sole responsibility. The cost for providing adequate security, as and when required, must be borne by the Contractor.

#### C3.4.2.4 Permits and Wayleaves

The Contractor shall be responsible for obtaining all of the necessary wayleaves, permissions or permits applicable to working near any existing services or other infrastructure on Site, and shall ensure that any wayleaves, permissions or permits obtained by the Employer's Agent prior to the award of the contract are transferred into the Contractor's name.

The Contractor shall abide by any conditions imposed by such wayleaves, permissions or permits.

The Contractor shall ensure that all wayleaves, permissions and permits are kept on site and are available for inspection by the relevant service authorities on demand.

The Contractor shall also ensure that any wayleaves in respect of electricity services are renewed timeously every three months.

#### C3.4.2.5 Features requiring special attention

#### Site maintenance (a)

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During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner and shall keep the Site free from debris and obstructions.

The general neatness and tidiness along the pipe route is to be maintained and therefore the Contractor shall on a day to day basis, keep the area of the Works in a condition acceptable to the Employer's Agent, the Employer's Health and Safety Agent and the Environmental Control Officer.

#### (b) Testing and Quality Control

### (i) Contractor to engage services of an independent laboratory

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Employer's Agent in deciding whether the quality of materials utilised, and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the Employer's Agent or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the Employer's Agent with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" (as defined in subclause PSA 7.2) which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

#### (ii) Additional testing required by the Employer's Agent

In addition to the provisions of subclause C3.4.2.5(b)(i): Contractor to engage services of an independent laboratory, the Employer's Agent shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in subclause C3.4.2.5(b)(i), at such times and at such locations in the Works as the Employer's Agent shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Employer's Agent, and copies of the test results shall be promptly submitted to the Employer's Agent.

#### (iii) Cost of Testing

#### a) Testing in term of subclause C3.4.2.5(b)(i)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.4.2.5(b)(i), above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Bill of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause C3.4.2.5(b)(i).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

#### b) Additional tests required by the Employer's Agent

The costs of any additional tests required by the Employer's Agent in terms of subclause C3.4.2.5(b)(ii): Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution

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of the Provisional Sum allowed therefore in the Bill of Quantities; provided always that the costs of any such additional tests ordered by the Employer's Agent, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the specifications, shall not be reimbursable to the Contractor.

#### (c) Contractor supplied equipment

The Contractor shall when required to supply any testing, measuring and/or survey equipment for the Employer's Agent's use provide calibration certificates or verification certificates (as appropriate) for all equipment. This shall apply for both shared equipment as well as for equipment specified to be provided for the Employer's Agent's use on site.

Calibration or verification, by certified authorities shall be subject to the Employer's Agent's approval prior to the delivery of any equipment to the Employer's Agent; and thereafter at intervals as prescribed for the relevant equipment but not less than every twelve (12) months.

The calibration or verification certificate for each item of equipment shall be submitted to the Employer's Agent for approval prior to its use or within seven (7) days of subsequent re-calibration/verification.

Unless otherwise provided for in the bill of quantities the cost of providing the above specified equipment shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Bill of Quantities.

Failure to submit certificates shall result in payment for the equipment being withheld.

### (d) Opening up and closing don of designated borrow pits

Measurement and payment for opening up and closing down designated borrow pits, including removing and stockpiling overburden and restoring the Site, shall be made under item 8.3.4 of SANS 1200 D. This item applies to all borrow material required under this Contract.

The requirements of subclause 5.2.2.2 of SANS 1200 D regarding the opening up, maintenance and closing down of borrow pits shall be adhered to.

#### (e) Access to properties

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 8.1.2 of the Conditions of Contract.

If, as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the afore-going, the Contractor may, with the prior approval of the Employer's Agent (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

#### (f) Monthly statements and payment certificates

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The statement (measured quantities) to be submitted by the Contractor in terms of Clause 6.10 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Employer's Agent, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

For the purposes of the Employer's Agent payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the Employer's Agent for the purposes of accurately reflecting the actual quantities and amounts which the Employer's Agent deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the Employer's Agent within three (3) normal workings days from the date on which the Employer's Agent communicated to the Contractor the adjustments required. The Contractor shall submit to the Employer's Agent five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic digital computer file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the Employer's Agent the requisite copies of the adjusted statement for the purposes of the Employer's Agent payment certificate will be added to the times allowed to the Employer's Agent in terms of Clause 6.10.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

The Contractor is further required to complete the monthly reporting template forms, refer to PSA 8.1.2.2 and Appendix B. These forms shall be submitted together with the Contractor's monthly payment certificates. Payment of the Contractor is conditional on this information being accurate and timeously provided. The Employer's Agent payment certificate template will be used as the only format for submission to the Employer.

The monthly statements accompanying the payment certificates shall include:

- i. Contractor's Invoice;
- ii. Interim Payment Certificate;
- iii. Proof of Delivery and Invoices of all materials Claimed as Materials on Site;
- iv. Construction Progress Report, including all items as per C1.4 Item 4.2 Monthly Returns
- v. Programme update
- vi. Cashflow vs Expenditure to date report, including all items as per C1.4 Item 4.2 Monthly Returns
- vii. Proof of Job Creation / Signed Labour Returns
- viii. Detailed report on monthly and cumulative Contract Participation Goals achieved, as per Item C1.4 Item 4.2 Monthly Returns.

#### (g) Construction in restricted areas

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. Notwithstanding, measurement and payment will be strictly according to the specified cross-sections and dimensions irrespective of the method used, and the rates and prices tendered will be deemed to include full compensation for any difficulties encountered by the Contractor while working in restricted areas. No extra payment nor any claim for payment due to these difficulties will be considered.

#### (h) Notices, signs, barricades and advertisements

All notices, signs and barricades, as well as advertisements, may be used only if approved by the Employer's Agent. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

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The Employer's Agent shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

#### (i) Workmanship and quality control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide suitably qualified and experienced Employer's Agents, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing and mix designs carried out by the Contractor, will be deemed to be included in the rates tendered for the related items of work.

The Contractor's attention is drawn to the provisions of the various Standardised Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Employer's Agent for examination and measurement, the Contractor shall furnish the Employer's Agent with the results of the relevant tests, mix designs, measurements and levels to demonstrate the achievement of compliance with the Specifications.

#### C3.4.2.6 Extension of time due to abnormal rainfall

a) Extension of time in respect of delays resulting from wet climatic conditions on the Site will only be considered in respect of abnormally wet climatic conditions and shall be determined for each calendar month or part thereof, in accordance with the formula given below:

$$V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$$

Where:

V = Extension of time in calendar days in respect of the calendar month under consideration:

If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.

When the value of V for any month exceeds the number of days in the particular month, V will be the number of days in the month.

- Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded.
- Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records, on which a rainfall of 20mm or more has been recorded for the calendar month.
- Rw = Actual average rainfall in mm recorded for the calendar month under consideration.
- Rn = Average rainfall in mm for the calendar month as derived from existing rainfall records as stated in the Site Information.

The factor (Rw - Rn)/X shall be deemed to be a fair allowance for variations from the average number of days during which the rainfall did not exceed Y mm but wet conditions prevented or disrupted work.

b) The rainfall records for Mthatha for the period 2000 to 2020 from South African Weather Service (see Appendix G) are reproduced in the accompanying table, and the monthly averages (Rn and Nn) for

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- this period shall, for the purposes of this Contract be taken as normal and as the values to be substituted for Rn and Nn. The values of X and Y shall be 20 and 10 respectively.
- c) The potential extension of time V has been calculated for each month and year of the period concerned to indicate the possible effect of the rainfall formula. The values of V were obtained by applying the rainfall formula and using the actual rainfall figures and the calculated values of Rn and Nn indicated in the table.
- d) The Contractor shall, at his own cost, provide and erect on the Site at a location approved by the Employer's Agent, an approved rain gauge, which shall be fenced off in a manner which will prevent any undue interference by workmen and others. The Contractor shall, at his own cost, arrange for the reading of the rain gauge on a daily basis for the duration of the Contract. The gauge readings, as well as the date and time at which the reading was taken shall be recorded in a separate record book provided by the Contractor for this purpose. All entries in the rainfall record books shall be signed by the person taking the reading and the gauge shall be properly emptied immediately after each reading has been taken. If required by the Employer's Agent, the Employer's Agent shall be entitled to witness the reading of the gauge.
- e) The Contractor's claims in terms of Clause 5.12 of the Conditions of Contract for extension of time in respect of delays resulting from wet climatic conditions on the Site during each month, shall be submitted in writing to the Employer's Agent monthly; provided always that
  - (i) the period allowed to the Contractor in terms of Clause 10 of the Conditions of Contract in which to submit his claim for each month shall be reduced to seven (7) days, calculated from the last day of the month to which the claim applies; and
  - (iii) the 28-day period allowed to the Employer's Agent in terms of Clause 10.1.2 of the Conditions of Contract in which to give his ruling on the claim, shall be reduced to fourteen (14) days.

The Contractor's monthly claim shall be accompanied by a copy of the signed daily rainfall readings for the applicable month.

- f) The extent of any extension of time which may be granted to the Contractor in respect of wet climatic conditions (whether normal or abnormal) shall be determined as the algebraic sum of the "V" values for each month between the Commencement Date and the Due Completion Date of the Contract, calculated using the formula above; provided always that:
  - (i) rainfall occurring within the period of the Contractor's Christmas shut-down period (referred to in the Conditions of Contract) shall not be taken into account in the calculation of the monthly "V" values;
  - (ii) rainfall occurring during any period during which the Contractor was delayed due to reasons other than wet climatic conditions on the Site, and for which delay an extension of time is granted by the Employer's Agent, shall not be taken into account in the calculation of the monthly "V" values;
  - (iii) if the algebraic sum of the "V" values for each month is negative, the time for completion will not be reduced on account of subnormal rainfall, and
  - (iv) where rainfall is recorded only for part of a month, the "V" value shall be calculated for that part of the month using pro rata values for Nn and Rn.
- g) The Employer's Agent shall, simultaneous with granting any extension of time in terms of this clause, revise the Due Completion Date of the Contract to reflect an extension of time having been granted in respect of wet climatic conditions, to the extent of the algebraic sum of all the "V" values for all the preceding months of the Contract, less the aggregate of the "Nn" values for the remaining (unexpired) months of the Contract (viz less aggregate of the potential maximum negative "V" values for the

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remaining Contract Period). Thus, provided that where such period is negative, the Due Completion Date shall not be revised.

h) Any extension of time in respect of wet climatic conditions granted in terms of this clause shall not be deemed to take into account delays experienced by the Contractor in repairing or reinstating damage to or physical loss of the Works arising from the occurrence of abnormal climatic conditions. Extension of time in respect of any such repairs or reinstatement regarding damage shall be the subject of a separate application for extension of time in accordance with the provisions of Clause 5.12 and Clause 10 of the Conditions of Contract.

MONTH	N <sub>n</sub>	$R_n$
January	1.8	103.8
February	1.7	84.8
March	1.8	92.5
April	1.0	57.3
May	0.5	21.6
June	0.3	9.7
July	0.3	18.2
August	0.2	25.8
September	0.4	39.0
October	1.2	53.0
November	1.9	86.8
December	1.8	84.1
TOTAL	13	676.6

#### C3.4.3 PLANT AND MATERIALS

#### C3.4.3.1 Plant and materials supplied by the Employer

The Employer will not provide any plant. The Contractor shall provide all plant of whatever nature necessary to enable him to undertake the works as specified.

#### C3.4.3.2 Materials, Samples and Shop Drawings

Materials or work, which does not conform to the approved samples submitted in terms of Clause 7.4.1 (GCC 2015) of the Conditions of Contract, will be rejected. The Employer's Agent reserves the right to submit samples to tests to ensure that the material represented by the sample meets the specification requirements.

The costs of any such test conducted by or on behalf of the Employer's Agent, the results of which indicate that the samples provided by the Contractor do not conform to the requirements of the Contract, shall, in accordance with the provisions of Clause 7 of the Conditions of Contract, be for the Contractor's account.

#### **C3.4.4 CONSTRUCTION EQUIPMENT**

#### **C3.4.4.1** Requirements for equipment

All construction plant and equipment used on this contract shall be in good working order, well maintained, of adequate size and fit for purpose. No plant or equipment that leaks oil, fuel or hydraulic fluids may be used on site.

Equipment must be such that work can be executed in an efficient manner.

Any plant or equipment that, in the opinion of the Employer's Agent, is not of adequate size or fit for use shall be removed from the site and replaced with acceptable plant and equipment, all at the Contractor's cost.

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All equipment must comply with the requirements as stipulated in the Environmental regulations and specifications and contained in the OHS Act.

#### C3.4.4.2 Equipment provided by the Employer

The Employer shall not provide any equipment.

#### **C3.4.5 EXISTING SERVICES**

#### C3.4.5.1 Known services

The Contractor shall familiarise himself with all existing services and liaise with all relevant authorities for the location and detection of existing services.

No guarantee can be given that all affected services are indicated on the drawings, or that, if they are shown, they are shown exactly in the correct location. Once located, the exact location, level and nature of the service shall be recorded and given to the Employer's Agent's Representative in writing.

The Contractor shall, subject to the provisions of PSA 5.4, expose all services by hand in advance of his trenching operation in order to reduce the risk of damage to existing services.

The Contractor shall take special care not to damage any existing services and shall comply with all the requirements of the relevant authorities during construction. The Contractor will be held solely responsible for the protection of all known services and for any claims for damages arising from damage to any such service. (See also PSA 5.4).

#### C3.4.5.2 Treatment of existing services

The Contractor to ensure that existing services supply are not interrupted. All existing services have to remain operational, either through protection or re-routing. Temporary re-routing of existing services is allowed, with the approval of the owner of the service.

#### C3.4.5.3 Use of detection equipment for the location of underground services

The Contractor to make use of the necessary detection equipment to determine the location of an existing service, before excavation commences to expose the service.

#### C3.4.5.4 Damage to services

The Contractor shall take special care not to damage any existing services and shall comply with all the requirements of the relevant authorities during construction. The Contractor will be held solely responsible for the protection of all known services and for any claims for damages arising from damage to any such service. (See also PSA 5.4).

Damage that occurs to unknown services during construction will be paid by the Employer.

#### C3.4.5.5 Reinstatement of services and structures damaged during construction

The Contractor will be responsible for the repair and reinstatement of damaged services in compliance with the service owner's specifications.

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#### C3.5. MANAGEMENT OF THE WORKS

#### C3.5.1 SPECIFICATIONS

The following Specifications are applicable:

- (i) The SANS 1200 Standardised Specifications listed in C3.7.1;
- (ii) The Particular Specifications given in C3.7.2; and
- (iii) The Variations and Additions to the SANS 1200 Standardised Specifications given in C3.7. 3.

#### C3.5.2 PLANNING AND PROGRAMME

#### **C3.5.2.1** General

The Contractor's Programme to be submitted in terms of Clause 5.6.1 of the Conditions of Contract shall take all matters that may impact the Contractor's sequence of executing the various components of the Works and the requisite rate of progress of the Works, as may be specified in or reasonably inferred from the Contract.

#### C3.5.2.2 Format

The Construction Programme to be submitted by the Contractor in accordance with the provisions of Clause 5.6.1 of the Conditions of Contract shall;

- (a) Be in the form of a bar chart; and
- (b) Clearly indicate the start and end dates and duration of all construction activities and identify the critical path; and
- (c) Take full cognizance of all the Contractor's risks and obligations in terms of the Contract.

The said Programme and all revisions thereto shall also be provided to the Employer's Agents in electronic digital format using the MS PROJECT software on a Monthly basis as per Clause 5.6.4.

#### C3.5.2.3 Failure to maintain construction programme

If the Construction Programme has to be revised in terms of the Conditions of Contract, because the Contractor is falling behind in its programme, the Contractor shall submit a revised programme of how it intends to regain lost time to ensure completion of the Works before the Due Completion Date.

#### C3.5.2.4 Additional Programming Information

The following (but not limited to) programming information shall be incorporated into the Contractor's initial programme and all subsequently adjusted programmes. The Contractor's programme shall also take full account of the matters described in the sub-clauses hereunder. No additional payments will be made to the Contractor in respect of any additional costs as it may incur in consequence of arranging or adjusting its programme to accommodate the said matters and the Contractor's various tendered rates and prices shall be deemed to fully inclusive of such costs.

- (a) Time related items, in respect of the following:
  - (i) Time to submit documentation before commencing to carry out the Works refer to Clause 5.3.1 C1.2 of Contract Data
  - (ii) Construction Regulations, 2014 requirements:
    - Regulation 3, Construction work permit process period
    - Regulation 4, notification of construction works period
  - (iii) Due Completion Date
- (b) All special non-working days defined in the Contract Data.

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- (c) Contractor's annual shutdown period between December and January
- (d) Allowance for a 30 day float period in the programme for unforeseen circumstances
- (e) Meeting the requirements of the Environmental Management Plan
- (f) The time needed for preparation and approval of the various mix designs specified in the relevant construction sections of the Scope of Works.

#### C3.5.3 QUALITY PLANS AND CONTROL

Refer the various and applicable SANS/SABS specifications, the general health and safety specifications and subsequent health and safety plan, the Conditions of Contract as well as the various clauses within the Scope of Work.

The Contractor to submit the Quality Management Plan for the approval by the Employer's Agent before commencing any work.

#### C3.5.4 ENVIRONMENTAL MANAGEMENT

The Contractor will be responsible for managing his activities so that damage to the environment is minimised, as per the approved Environmental Management Plan contained in Specification PEM. A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance and provision of the Method Statement.

#### C3.5.5 FORMAT OF COMMUNICATIONS

All contractual communication shall be in writing.

The Contractor shall, for the full duration of the Contract Period, supply and maintain the following documentation:

- (a) Site Communication and Request Book.
- (b) Safety File containing all relevant safety data.
- (c) Daily register of all labour, plant and equipment.
- (d) Quality Control file containing all quality control/assurance forms and records.
- (e) One full set of Contract Drawings and documents.
- (f) Latest revision of the Construction Programme.

The above-mentioned shall be kept on Site and shall be accessible to the Employer's Agent at all times.

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#### C3.6. HEALTH AND SAFETY

The Contractor will be responsible for managing his health and safety activities as per the approved Health and Safety Plan, as indicated in Specification PHS. A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014

#### **C3.6.1 HEALTH AND SAFETY REQUIREMENTS AND PROCEDURES**

#### (a) Construction Regulations, 2014

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2014 (the regulations) as promulgated in Government Gazette No 37305 and Regulation Gazette No 10113 of 7 February 2014 including COVID-19 requirements. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Bill of Quantities and Drawings, as well as in the Employers' health and safety specifications (regulation 5(1)(b)) of the Construction Regulations 2014, which are bound in the Contract document.

The Contractor shall in terms of regulation 7(1)(a) provide a comprehensive Health and Safety Plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

#### **C3.6.2 PROTECTION OF THE PUBLIC**

The Contractor to ensure the sufficient screening and barricading of the site of works is done to prevent unauthorised public access. If screening/barricading will impact on the movement of the public, the Contractor is to ensure that safe detour routes are allowed and clearly indicated.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

#### **C3.6.3 BARRICADES AND LIGHTING**

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

#### **C3.6.4 TRAFFIC CONTROL ON ROADS**

The Contractor shall carry out, erect and maintain such temporary works and provide all temporary road signs, pipes, deviations, warning boards, barricades, signs, lighting and demarcations and the like, as are necessary to maintain and safeguard the normal flow of public and private vehicular and pedestrian traffic.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

#### C3.6.5 MEASURES AGAINST DISEASE AND EPIDEMICS

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Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014. The Contractor also needs to refer to the Health and Safety Specification and the COVID-19 specification included as Specification PHS to this document for measures to be deployed on site.

#### **C3.6.6 AIDS AWARENESS**

The Contractor is required to refer to SANS 1921 – 6 as further amended below and HIV/AIDS Awareness Education Specification (Appendix D). Payment items have been included in the Schedule of Quantities to ensure compliance.

SANS 1921	-6
Variations	
Clause	Specification Data
1 e)	Appointment of an HIV / AIDS Awareness Champion.
4.1 f)	Appointing an HIV/ AIDS Awareness Champion within 14 days of site handover from amongst the workers (which could include the Community Liaison Officer).  The champion should be able to speak, read and write English, speak and understand the local languages spoken by the Workers and shall be on site at all stages of the construction period.  The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider
	on basic HIV/AIDS information, the support services available and has the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner.
	<ul> <li>The Awareness Champion shall be responsible for:</li> <li>Liaising with the Service Provider to assist in organising awareness workshops;</li> <li>Filling condom dispensers and monitoring condom distribution;</li> <li>Handing out information booklets;</li> <li>Placing and maintaining posters</li> </ul>
4.1 g)	Provide information about the names of the closest service providers to be displayed on a poster of size not smaller than A2.
4.2.3 c)	Understand and communicate the purpose of voluntary HIV/AIDS testing and counselling.
4.2.3 d)	Recognise the importance of caring for people living with HIV/AIDS and be familiar with the various treatments available, including treatment of opportunistic infections.
4.2.3 e)	Understand and communicate the rights and responsibilities of those living with HIV/AIDS in the workplace and the importance of non-discrimination.
4.3.2	The HIV/AIDS Awareness Champion and the Employer's representative shall certify the report and schedule described in 4.3.1 whenever a claim for payment is issued to the Employer.
5	Sanctions In the event that the Contractor fails to satisfy the requirements of this specification, the Employer may apply sanctions which include the rejection of claims for payment as being incomplete or the withholding of completion certificates (interim or final).

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#### C3.7. PROJECT SPECIFICATIONS

#### C3.7.1 LIST OF APPLICABLE SPECIFICATIONS

#### C3.7.1.1 Applicable SANS 1200 Standardised Specifications

For the purpose of this Contract the latest issues of the following Standardised Specifications for Civil Engineering Construction, applicable at the date of the tender advertisement shall apply:

SANS 1200 A: GENERAL

SANS 1200 AB: EMPLOYER'S AGENT'S OFFICE

SANS 1200 C: SITE CLEARANCE SANS 1200 D: EARTHWORKS

SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)

SANS 1200 DK: GABIONS AND PITCHING SANS 1200 G: CONCRETE (STRUCTURAL)

SANS 1200 HA: STRUCTURAL STEELWORK (SUNDRY ITEMS)

SANS 1200 L: MEDIUM-PRESSURE PIPELINES

SANS 1200 LB: BEDDING (PIPES)

SANS 1200 LE: STORMWATER DRAINAGE

Any reference to a SABS standard, in any context or forum, will be deemed to be a reference to the corresponding SANS standard, and vice versa. Any ambiguity in relation to the standard specifications to be referred to the Employer's Agent for clarity, in terms of the GCC 2015 3rd edition.

The term "project specifications" appearing in any of the SANS 1200 standardised specifications must be replaced with the term "Scope of Work"

#### C3.7.1.2 Particular Specifications

The following Particular Specifications for work not covered by the SANS 1200 Standardised Specifications are also included hereunder:

PA: FENCING

PC: NO-FINES CONCRETE

PEM: ENVIRONMENTAL MANAGEMENT

PHS: HEALTH AND SAFETY

PL: HORIZONTAL DIRECTIONAL DRILLING

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PSA: GENERAL

(Applicable to SABS 1200 A - 1986)

PSA 3: MATERIALS

Add the following new sub-clause:

#### PSA 3.3: ORDERING OF MATERIALS

"The quantities set out in the Schedule of Quantities have been determined from calculations based on data available at the time and should therefore be considered to be approximate quantities only. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the works in accordance with the Specifications and Drawings issued to the Contractor for construction purposes.

Any reliance placed by the Contractor on the estimated quantities stated in the Schedule of Quantities issued for tendering purposes, or measurements made by the Contractor from Drawings issued for tendering purposes only, shall be entirely at the Contractor's risk and the Employer accepts no liability whatsoever in respect of materials ordered by the Contractor for construction purposes."

The Contractor shall ensure that the work is not delayed, due to the lack of materials on the site of the works, by placing orders with suppliers for the materials required under this contract timeously.

The Contractor shall, by producing copies of written orders or written enquires for supplies, prove to the satisfaction of the Engineer that any delay occasioned by non-availability of materials has been caused by the inability of suppliers to supply and not by his own lack of timely ordering or lack of exhaustive enquiry for supplies, before any extensions of the contract time will be allowed due to such delays.

PSA 4: PLANT

PSA 4.2: CONTRACTOR'S OFFICES, STORES AND SERVICES

Add the following:

"No housing is available for the Contractor's employees, and the Contractor shall, at his own cost, make arrangements with Local Authorities regarding the housing of his employees."

Add the following new sub-clauses:

#### PSA 4.3 PLANT FOR CONSTRUCTION PURPOSES

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

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

PSA 5: CONSTRUCTION

Add the following new sub-clauses:

PSA 5.9: DAYWORKS:

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#### PSA 5.9.1: SCOPE

"Dayworks is to be understood to be work and/or material, the provision of which cannot, in terms of the Contract be measured in the normal items of the Schedule of Quantities and has to be measured in terms of time and cost."

#### PSA 5.10: SITE MEETINGS

The contractor will be required to attend site meetings, normally held once a month, to discuss general progress, quality of work, problems, claims, payments, etc.

#### **PSA 7:TESTING**

#### PSA 7.2: APPROVED LABORATORIES

Add the following:

"The independent laboratory used by the Contractor, if approved by the Engineer, shall be deemed to be an approved laboratory."

PSA 8: MEASUREMENT AND PAYMENT

PSA 8.1: MEASUREMENT

PSA 8.1.2: PRELIMINARY AND GENERAL ITEM OR SECTION

PSA 8.1.2.3: CONTRACTOR TO PRICE ALL ITEMS

Add the following:

"Where the Contractor inserts 'NIL', "included", or omits to insert a rate in the 'Rate' column, this shall be interpreted as a rate or price of zero."

#### PSA 8.3.5 Provision of Materials Guarantee

This shall include the cost of acquiring and maintaining an on-demand materials guarantee for the construction duration.

Unit: Sum

#### PSA 8.4: SCHEDULED TIME-RELATED ITEMS

Add the following new payment items:

# PSA 8.4.6: COMPLIANCE WITH OHS ACT (1993, AS AMENDED), THE CONSTRUCTION REGULATIONS (2014) AND THE PARTICULAR SAFETY SPECIFICATION: Unit: Sum

"The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. (See Particular Specification C3.6)

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

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#### PSA 8.4.7: COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT

PLAN Unit: Sum

"The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Environmental Management Plan as well as the EMPr as applicable to this contract. (See Particular Specification C3.5.2 and EMPr (Annexure D)

Should the Contractor fail to comply with the provisions of the Environmental Management Plan, he will be liable for penalties as provided in the Environmental Management Specification."

#### PSA 8.4.8: SUPERVISION OF SUBCONTRACTOR Unit: Sum

The rates shall cover the cost of supervising the Subcontractor including overheads, charges and profit for the duration of construction.

#### PSA 8.7: DAYWORK

Add the following:

"Payment for work on a daywork basis will only be made if:

- a) It is agreed by the Engineer to be outside the specified scope of a measured item in the Contract.
- b) It is carried out in response to a written instruction by the Engineer.
- c) The records of plant, labour and material are submitted daily for the consideration of the Engineer and duly approved.

The rates submitted for daywork are to be approved by the engineer prior to any work being undertaken.

#### PSA 8.8: TEMPORARY WORKS

#### PSA 8.8.2: DEALING WITH TRAFFIC (OR ACCOMMODATION OF TRAFFIC) Unit: Sum

Add the following:

"The rate shall cover all costs pertaining to the provision, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights, flagmen, etc. as required for the guarding and protection of the Works as well as all other costs to accommodate the traffic during construction.

All signs provided by the Contractor shall be in accordance with the latest issue of the South African signs manual."

Add new payment item:

#### PSA 8.8.7: CONTRACTOR TO PROVIDE "CONSTRUCTION RECORD" INFORMATION

Unit: Sum

The tendered rate for this item to include for the surveying of the pipeline route, including pipe invert levels as laid, the position of all valve chambers, reservoir inlet, outlet and bulk meter chambers, reservoir positions and perimeter fencing by an independent Surveyor. The information supplied to the Engineer is to be in the form coordinated Autocad drawings and Model Maker "tot" survey files.

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PSAB: ENGINEER'S OFFICE (Applicable to SABS 1200 AB – 1986)

**PSAB 3: MATERIALS** 

PSAB 3.1: NAMEBOARDS

Add the following to sub-clause:

The Contractor shall supply and install and include in his rates for the standard applicable infrastructure grant name board provided in the drawings. 2 No. name boards. The board shall be erected prior to any execution of work. The name board shall also comply with the EPWP requirements.

The boards shall be placed in a position designated by the Engineer for the full duration of the contract.

#### **PSAB 3.2: OFFICE BUILDING**

Replace sub-clause with the following:

"The Contractor shall provide and maintain a single office (one room) with a floor area of at least 12 m<sup>2</sup> and a ceiling height of at least 2,5 m. The office shall be lockable and waterproof. Ablution facilities for the sole use of the Engineer and his site staff shall also be provided.

The office furnishings shall include:

- a) Three office desks each with lockable drawers
- b) Three high swivel chairs
- c) Meeting facilities with a table and chairs to seat at least 12-15 people (for purposes of site meetings).
- d) Acceptable lighting
- e) Internet Facilities (uncapped)
- f) Engineer's laptop
- g) Air-conditioning in Engineers office
- h) A facility to store / hang drawings
- i) Printing facilities
- j) Drawing rack
- k) 5 No. shade cloth covered parking
- I) Engineer's vehicle

On completion of the Works, ownership of the building and the furnishings shall revert to the Contractor who shall remove them from site."

PSAB 4: PLANT

#### **PSAB 4.1: TELEPHONE**

Delete this clause in its entirety and replace with the following:

"Telephone facilities are required by the Engineer. A cellphone with a prepaid sim card to the value of R5000 per month will be required for the Engineer's Representative."

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PSC: SITE CLEARANCE

(Applicable to SABS 1200 C - 1982)

#### **PSC 3 MATERIALS**

#### PSC 3.1 DISPOSAL OF MATERIAL

Add to this Sub-clause:

Material obtained from clearing shall be disposed of offsite by the Contractor at his expense. Disposal sites shall be appropriate for the nature of the material that is to be disposed of and shall be within the free-haul distance unless confirmed and approved by the Engineer, Local Authority and/or Environmental Officer for the project. Disposal of combustible material by burning will not be permitted. The Contractor will be held responsible for observing the by-laws and regulations of the local authority.

Payment for the clearing, loading, transport, dumping fees and any other requirement or costs incurred shall be included in the rates submitted for site clearance.

#### PSC 8.2 SCHEDULED ITEMS

#### **PSC 8: MEASUREMENT AND PAYMENT**

PSC 8.2.5: TAKE DOWN EXISTING FENCES

Unit: km

Add the following:

"The unit rate tendered for removal and re-erection of fences and gates shall cover the cost of reinstatement of the fence to its original condition."

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PSD: EARTHWORKS

(Applicable to SABS 1200 D - 1988)

**PSD 5: CONSTRUCTION** 

PSD 5.2: METHODS AND PROCEDURES

PSD 5.2.3: PLACING AND COMPACTION

Add the following new sub-clauses:

**PSD 5.2.3.3: EROSION CONTROL BERMS** 

"Where instructed by the Engineer, earth berms shall be constructed to the dimensions shown on the drawings or to the detail instructed by the Engineer. The berms shall comprise excess fill material from the trench, shall be hauled by wheelbarrow, placed and shall be hand stamped in layers not exceeding 150mm. The berms shall be slightly overfilled before being shaped to the detail shown on the drawings. The material shall wherever possible be sourced within the freehaul distance of 0.5 km. After completion, the Engineer may instruct the Contractor to construct un-grouted, handpicked and packed stone pitching along the upstream edge of the berm."

#### PSD 5.2.3.4: SANDBAG PROTECTION TO PIPE TRENCH

"Where instructed by the Engineer, 25kg sandbags made from woven polypropylene shall be filled with selected fill material as specified in SABS 1200 LB and placed in a stretcher bond pattern around the pipe. The bags shall be firmly packed and hand stamped into place and shall be keyed a minimum of 500mm into the side wall of the trench. Where specified, the selected fill material shall first be brought to optimum moisture and then stabilized by the addition of 1% cement."

PSD 8: MEASUREMENT AND PAYMENT

PSD 8.3: SCHEDULED ITEMS

PSD 8.3.1.2: REMOVE TOPSOIL TO NOMINAL DEPTH 150mm (OR OTHER STATED), STOCKPILE AND MAINTAIN Unit: m<sup>2</sup>

Add the following:

"The top 150mm of material in the reservoir and chamber sites shall, unless otherwise indicated by the Engineer, be deemed to be topsoil and shall be stripped and stockpiled separately along the route of the pipeline. The stockpile shall not be more than 1,5m in height and shall not be covered by other material or be used for an access road.

The soil on top of which the top soil will be reinstated shall be scarified to a depth of 50mm."

Add the following new payment items:

#### **PSD 8.3.13: EROSION CONTROL BERMS**

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

Unit: m3

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#### PSD 8.3.14: SANDBAG PROTECTION TO PIPE TRENCH

Unit: No.

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

#### PSD 8.3.15: EXTRA-OVER SANDBAG PROTECTION FOR STABILIZATION Unit: No.

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

#### PSD 8.3.2 BULK EXCAVATION

Replace the contents of this clause with the following:

Separate scheduled items will be provided for each type of excavation material (in accordance with the selection criteria specified in PSD 3.3.1), together with its method of excavation and intended destination / use. The classification criteria specified in PSD 3.2.2.1 is intended to assist with making the distinction between 'weak' mudstone / siltstone from 'intermediate' mudstone / siltstone material and between 'intermediate' and 'hard' material (unweathered sandstone and dolerite). The distinction between 'completely-weathered soft soil material' and 'weak mudstone' is fairly obvious, but shall none-the-less be as agreed with the Engineer's Representative. In all cases, the rates tendered shall make allowance for liaising and agreeing with the Engineer's Representative as to which selection category material being excavated falls into, how it is to be excavated and where such material is to be placed.

Except for measurement of overhaul to the designated spoil site, there are no 'extra-over' excavation items. The tendered rates for excavation shall cover all costs associated with excavating and spoiling or filling and any conditioning, gridding and compaction required to achieve the required compaction density. The tendered rates for overhaul shall cover all costs associated with selecting, loading and transporting the spoil material to the designated spoil dump and depositing the material in a way there is no mixing of the different selection types.

#### PSD 8.3.6 OVERHAUL

Replace the contents of this Clause with the following:

All movement of cut to fill material shall be regarded as freehaul. In addition, all movement of topsoil, and any other material within the boundary of the site and less than 0.5 km from the site boundary shall be regarded as freehaul.

Overhaul will only be paid where the transportation of material is beyond 0.5 km of the boundary of the site. Overhaul shall not apply to imported material from commercial sources.

The overhaul distance shall be measured from the point of exit of the site perimeter to the agreed centre of the designated spoil area.

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PSDB: EARTHWORKS (PIPE TRENCHES) (Applicable to SABS 1200 DB – 1989)

PSDB 3: MATERIALS

PSDB 3.5: BACKFILL MATERIAL

Add the following new sub-clause

PSBD 3.5(C): STABILISED BACKFILL

"Any pipe laid down on a slopes steeper than 1:6 is to be backfilled with 4% cement stabilisation by mass at 5 metre intervals in lengths of 2 metres.

PSDB 5: CONSTRUCTION

PSDB 5.1: PRECAUTIONS

Add the following new sub-clause:

#### **PSDB 5.1.5: BARRICADING, WATCHING AND LIGHTING**

"While the responsibility for the efficient barricading, lightning and watching of all trenches, excavations and stocks of material shall rest upon the contractor, he shall make every effort to comply with requirements of the local traffic Authority.

The cost of all chevron taping, supports, steel plate bridges, temporary road warning signs, drums, safety lamps, shall be deemed to be included in the Contractors price rates for excavation."

#### **PSDB 5.4: EXCAVATION**

Add the following:

"The total length of any section of open or partially open trench in advance of the backfilling (i.e. to ground level) shall not exceed 1000 m unless otherwise instructed by the Engineer."

PSDB 5.6: BACKFILLING

PSDB 5.6.3: DISPOSAL OF SOFT EXCAVATION MATERIAL

Add the following:

"Surplus material shall be spread evenly and neatly alongside the trench excavation, unless otherwise directed by the Engineer."

#### PSDB 5.6.6: COMPLETION OF BACKFILLING

Add the following:

"The Contractor shall bear all costs associated with the remedy of defects in trenches caused by lengthy exposure as instructed by the Engineer."

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PSDB 8: MEASUREMENT AND PAYMENT

#### PSDB 8.1.4 BASIC PRINCIPLES

Delete Sub-Clause and substitute:

Except that the volume will be computed as specified in 8.2.3, the requirements of Sub-Clause 5.2.5.1 (Freehaul) of SABS 1200 D as amended and as relevant, shall apply to freehaul.

No additional payment will be made for excavating and backfilling jointing slots as the cost of that work will be deemed to be included in the rates for trenching.

PSDB 8.3.1: SITE CLEARANCE AND (IF SPECIFIED) REMOVAL OF TOPSOIL

PSDB 8.3.1.C: REMOVE TOPSOIL Unit: m<sup>2</sup>

Add the following:

"The top 150mm of material in the pipe trench shall, unless otherwise indicated by the Engineer, be deemed to be topsoil and shall be stripped and stockpiled separately along the route of the pipeline. The stockpile shall not be more than 1,5m in height and shall not be covered by other material or be used for an access road.

The soil on top of which the top soil will be reinstated shall be scarified to a depth of 50mm."

## Add the following new payment item

#### PSDB 8.3.3.1(D) STABILISED BACKFILL (4% CEMENT)

"The rate shall include the cost of material, delivery to site and the mixing in of the stabiliser as per clause PSDB 3.5 (c)

Unit: m<sup>3</sup>

#### **PSDB 8.3.3.4 OVERHAUL**

Replace the contents of this Clause with the following:

All movement of cut to fill material shall be regarded as freehaul. In addition, all movement of topsoil, and any other material within the boundary of the site and less than 0.5 km from the site boundary shall be regarded as freehaul.

Overhaul will only be paid where the transportation of material is beyond 0.5 km of the boundary of the site.

Overhaul shall not apply to imported material from commercial sources.

The overhaul distance shall be measured from the point of exit of the site perimeter to the agreed centre of the designated spoil area.

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PSG: CONCRETE FOR WATER RETAINING STRUCTURES

(Applicable to SABS 1200 G - 1982)

#### PSG 2: INTERPRETATIONS

## PSG 2.4.2 Strength concrete

Add the following to this Sub-clause:

With the exception of mixes weaker than 15 MPa, all concrete for the Works shall be considered to be strength concrete.

Unless otherwise specified on the drawings or in the Schedule of Quantities, all structural concrete shall be Grade 35 MPa/19.

#### PSG 3: MATERIALS

#### PSG 3.2 Cement

Add the following to this Sub-clause:

CEM1 42.5 as specified in SABS EN 197-1 common cements, a 75% CEM1 42.5 and 25% PFA blend or 50% slagment and 50% CEM1 shall be used as specified in the relevant sections of SANS 1491 and SANS EN 197-1. Any variations to these are subject to the Engineer's approval.

For non-structural concrete CEMI 32.5 is acceptable.

#### PSG 3.2.3 Storage

Add the following to this Sub-clause:

Cement shall be used in the order in which it is received (first in, first out basis)

Cement kept in storage for longer than 6 weeks shall be removed from site and not used in the Works.

Any cement that shows signs of hydration, such as the formation of lumps, may not be used and is to be immediately removed from site.

#### PSG 3.3 Water

Replace the contents of this clause with the following:

Only potable quality water from an approved source may be used for mixing concrete. Water from a river or stream may only be used for curing.

#### PSG 3.4 Aggregates

#### **PSG 3.4.1** Applicable Specification

Add the following to this Sub-clause:

The maximum aggregate size shall be 25 mm. Any aggregate may be used provided the free sodium alkali content in the concrete mix does not cause an alkali-aggregate reaction.

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Coarse aggregate may be obtained from the nearest available commercial sources, and shall be subject to the Engineer's approval.

Fine aggregate may be obtained from local sources subject to testing of its suitability by an approved laboratory and approval by the Engineer.

Aggregates shall be tested periodically for reactivity, the costs of which shall be deemed included in the rate tendered for concrete. A design mix will have to be made and the results submitted to the Engineer for approval before construction begins.

Coarse and fine dolomitic aggregate may be used. When tested in accordance with the method specified in Appendix C of SANS 677, not more than 25% by mass of the dolomitic aggregate shall be insoluble in hydrochloric acid.

At least one month before commencement of concrete work the Contractor shall supply at his own representative samples to the Engineer of the aggregates he intends using, together with certificates from an approved laboratory indicating that the aggregates comply with the specifications. Approximately 50 kg of each sample of aggregate shall be supplied.

After approval, these samples shall be taken as standard for the agreed aggregates to be used in the Works. If at any time during the course of the Contract the Engineer considers that there has been any deviation from the approved standard the Contractor shall submit further tested samples of material to the Engineer for approval.

## Aggregates for grouting

Notwithstanding the requirements of Sub-clause 3.4.1, the grading of the fine aggregate (sand) and coarse aggregate (stone or pea gravel) to be used for grouting shall conform to the grading given in Tables 1 and 2 respectively, below.

TABLE 1 - SAND	
Test sieve nominal aperture size, mm	% Passing (by mass)
9,5	100
4,75	95 - 100
1,18	45 - 65
0,3	5 - 15
0,15	0 - 5

TABLE 2 - STONE OF	TABLE 2 - STONE OR PEA				
GRAVEL					
Test sieve	9/ Dessing				
nominal aperture	% Passing (by mass)				
size, mm	(by mass)				
9,5	100				
4,74	95 - 100				
2,36	0 - 5				

#### **Dolomitic Aggregate**

Coarse and fine dolomitic aggregate may be used. When tested in accordance with the method specified in Appendix C of SANS 677, not more than 25% by mass of the dolomitic aggregate shall be insoluble in hydrochloric acid.

### PSG 3.5 Admixtures

Add the following Sub-clause to clause 3.5:

### PSG 3.5.3 Pulverized fly ash (PFA)

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## PSG 3.5.3.1 General

Concrete containing a percentage of FA shall be termed FA concrete. Pulverized fly ash (PFA) shall conform to the requirement of SANS 1491-2.

All concrete used shall consist of FA in the concrete unless otherwise shown on the drawings or ordered by the Engineer.

FA concrete shall conform to the requirements of SANS 1200 G for concrete and the additional requirements specified below.

## PSG 3.5.3.2 Source and quality

Fly Ash shall be procured from an approved source and shall be of a consistent quality conforming to SANS 1491-2. In particular it shall be tested for and shall conform to the following:

the loss on ignition shall not exceed 5% the percentage by mass retained on 45 micron screen shall not exceed 12.5%

#### PSG 3.5.3.3 Cementitious material

The cementitious material used for FA concrete shall consist of a mixture of between 75% and 80% by mass of ordinary Portland cement and of between 25% and 20% by mass of FA.

Add the following Clauses:

#### PSG 3.9 Granolithic screed

Granolithic screed shall consist of:

Cement 1 part by mass
Sand 1,25 parts by mass
Coarse aggregate 2 parts by mass

The coarse aggregate shall consist of granite or other approved chips which shall pass a 10 mm sieve and be retained on a 5 mm sieve.

The cement/water ratio of the mix shall be at least 2.0.

#### PSG 3.10 Bond breaker

The bond breaker where specified under floor slabs shall be 250 micrometre polythene sheet complying with SANS 952, Type D.

## PSG 3.11 Materials for movement joints

## PSG 3.11.1 General

The various jointing materials, the manufacturers of the materials and the methods of application shall be as approved by the Engineer. Materials shall be stored and protected to avoid damage, degradation, distortion or contamination.

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The joint materials shall be resistant to ultraviolet light and to biological degradation.

## PSG 3.11.2 Waterstops

Waterstops shall be of approved manufacture and of the pattern and the material and widths scheduled and specified and shown on the drawings. They shall comply with the tolerances specified in Clause 6.1 of SANS 1200G. They shall conform to Specifications CKS 388 or 389, for natural rubber or PVC respectively, and have the appropriate physical properties as set out below:

PVC Rubber
Tensile strength (@ 25oC) 12,2 MPa 20,7 MPa
Elongation at break (@ 25oC) 250% 500%
Hardness BS degrees (IRHD @ 25oC) - 60 to 65o
Softness (BS) 28 to 52o -

All intersections between waterstops shall be prepared by mitring and welding/vulcanising intersection pieces in the factory in accordance with the manufacturer's instructions and to approval of the Engineer. Only straight lengths of waterstop may be field welded using the appropriate jigs and tools.

Where required, waterstops shall have eyelets so that they may be tied securely to the adjacent reinforcement. "Rearguard"-type waterstops shall have flanges or cleats that grip effectively.

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#### PSG 3.11.3 Fillers

Closed cell expanded polyethylene fillers shall comply with the following:

Property	Unit	Value Test Method
Danaitu	lea/m 2 110	DIN 52420
Density	kg/m3 110	DIN 53420
Compression Stress at		
compression	kPa 175	DIN 53577
strains of 10%	kPa 210	DIN 53577
	kPa 340	DIN 53577
25%		
50%		
Compression set after 24		
hours	% 14	
recovery		
Tensile Strength	kPa 680	DIN 53571
Elongation at Break	% 49	DIN 53571
Max. water absorption after		
24 hours by volume	% 0,1	ASTM C-177

Fillers shall be pre-cut to suit the application with a tear-out strip for forming the specified recess for the sealant. If so required the filler shall be glued into position with approved epoxy glue.

## PSG 3.11.4 Bond breakers, primers and sealants

The bond breaker (if specified) shall be self-adhesive PVC tape (or equal, approved material) with a width the same as the joint recess into which it is to be applied.

The primer, if required for the sealant, shall be fully compatible with the sealing compound that is to be used.

The elastomeric sealant shall be either a two-component polysulphide liquid polymer base complying with the requirements of SANS 110 or a polyethylene based polyurethane "pouring grade" for horizontal or near horizontal joints or "gun grade" for vertical/overhead joints and joints steeper than 1 in 10 to the horizontal. All elastomeric sealants shall comply with BS 4254 Type A1 and shall have a movement tolerance of 25%.

### PSG 3.12 Precast paving slabs

The paving slabs shall comply with the requirements of SANS 541, shall be as scheduled and with patterned surface, or equal approved. Samples of the types which the Contractor proposes to use shall be submitted for approval prior to construction.

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PSG 4: PLANT

PSG 4.3 Mixing plant

## **PSG 4.3.1** General Requirement for Mixing Plant

Add the following to this Sub-clause:

Stand-by mixers of adequate capacity and with an independent power unit shall be maintained on site for immediate use in the event of breakdown of the regular mixers failure of the power supply.

#### PSG 4.4 Vibrators

Add the following to this Sub-clause:

Stand-by vibrators of adequate capacity and with an independent power unit shall be maintained on site for immediate use in the event of breakdown of the regular vibrator failure of the power supply.

Vibrators for in-situ concrete shall be of the internal or immersion type.

#### PSG 4.5 Formwork

#### **PSG 4.5.3** Ties

Add the following to this Sub-clause:

The use of sleeves for formwork ties through the walls of water retaining structures will not be permitted. Ties, when cast in, shall have some form of positive anchorage to prevent any rotation when loosening formwork and some form of water bar to restrict seepage along the tie.

For Watertight concrete structures the shutters shall be fastened using an approved imbedded fastening system. Open ferrules will not be permitted.

Add the following Clause:

#### PSG 4.6 Water-bath

A temperature-controlled water-bath with a capacity to cure two hundred cubes shall be provided on site. The water-bath shall be located under cover.

### **PSG 5 CONSTRUCTION**

#### PSG 5.1 Reinforcing

## PSG 5.1.2 Fixing

Add the following to this Sub-clause:

Fixing of reinforcing bars by welding and heating of bars will not be permitted.

Fixing blocks for the attachment of fixtures may be embedded in concrete provided that the strength or any

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other desirable feature (such as appearance of the member) is not, in the opinion of the Engineer, impaired thereby.

Supports shall be of approved precast concrete blocks properly shaped to maintain position or proprietary supports of an approved type. Concrete blocks shall be adequately cured as specified. Wooden supports shall not be used nor shall bars be placed in succeeding layers of fresh concrete nor shall bars be adjusted during the placing of concrete. Tie-wire shall point away from the nearest formwork face.

Where clips, stools and other supports are not shown on the drawings and are structurally not required, the Contractor shall provide those supports he deems necessary to ensure the correct positioning of the reinforcement, to the satisfaction of the Engineer. The cost of such steel, labour, and other fixing materials shall be inclusive in the rate for the scheduled reinforcement and no additional payment shall be made.

## PSG 5.2 Formwork

## PSG 5.2.1 Classification of finishes

Add the following to this Sub-clause:

Rough formwork Degree of Accuracy III may be used on the outside faces where the concrete is more than 500 mm below the final ground level.

Smooth formwork Degree of Accuracy II will be used elsewhere.

Where specified special finishes shall be to Degree of Accuracy I

## PSG 5.2.2 Preparation of formwork

Add the following to this Sub-clause:

All exposed external angles in concrete work shall have 20 mm x 20 mm chamfers unless otherwise specified or ordered, but the top edge of a slab that is to receive an applied finish shall not be chamfered.

#### PSG 5.5 Concrete

#### PSG 5.5.1 Quality

Add the following to this clause:

35 MPa concrete with the minimum and maximum cement contents of 325 kg/m3 and 450 kg/m3 respectively shall be used. For concrete containing extenders the maximum cement content shall be 450 kg/m3. The water to cement ratio shall not exceed 0.50. All concrete mix designs shall be approved by the Engineer in advance.

The mix design and casting procedure shall be approved by the Engineer prior to casting.

All Water Retaining structures and all manholes shall be constructed using watertight concrete. The Contractor shall abide by all conditions set out in sub-clause 5.5.11 as amended of SABS 1200 G, and pay particular attention to this aspect of the works.

Cubes shall be taken on all pours in accordance with SABS 1200 G. Payment shall be included in the rate tendered for the supply of concrete. No payment shall be made for concrete pours on which no cube tests have been performed. A single cube test comprises the mean crushing strength of 3 cubes taken from the

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same batch of concrete and cubes must be taken at the frequency specified SANS 1200 G

The concrete shall be tested for water sorptivity, oxygen permeability, chloride conductivity, depth of cover and shrinkage; the details of the tests are given on the specification.

#### PSG 5.5.1.4 Chloride content

Add the following to this Sub-clause:

Efflorescence will not be acceptable on any exposed concrete surface

#### PSG 5.5.1.5 Durability

Add to this Sub-clause the following:

The water/cement ratio, as specified in Table 5, but shall not exceeding 0.5.

#### PSG 5.5.1.6 Prescribed mix concrete

Add the following to this Sub-clause:

Notwithstanding the requirements of Sub-clause 5.5.1.6, samples of aggregates will not be made available by the Engineer. The Contractor shall supply aggregates from commercial sources located by him, complying with the requirements of Sub-clause 3.4.1, as amended, for the production of prescribed mix concrete.

"No-fines" concrete:

A nominal aggregate size of 19 mm shall be used in the manufacture of "no-fines" concrete.

No-fines concrete shall be laid under where specified and shall consist of coarse aggregate, cement and water only. No fine aggregate shall be used. Sandwiching or layering of pours will not be permitted. The Contractor shall cast to the profile depth in one pour.

The mixing of the cement and water paste shall have the consistency of paint capable of coating each coarse aggregate particle uniformly and sufficiently to form a small fillet at all the contact points of each stone in the aggregate.

Between 24 and 48 hours after the no-fines layer has been laid it shall be covered with 1:4 cement: sand mortar layer 20 mm thick. The mix shall be comparatively dry to ensure that it does not penetrate and block the cavities in the no-fines concrete. The surface shall be steel floated to form a plane surface.

The mortar skim shall be cured in the same manner as concrete for a period of not less than 2 days. Payment shall be per cubic metre of no-fines concrete placed. The rate shall include compaction and skimming to the approval of the Engineer.

#### **PSG 5.5.1.7** Strength Concrete

Add the following to this Sub-clause:

The concrete mix design for strength concrete must be prepared in an approved laboratory and the results of actual test mixes must be submitted for approval together with 7-day and 28-day strength test results. Special attention is drawn to the fact that the concrete mix must provide a very dense and impervious concrete.

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The Contractor shall submit details of the proposed concrete aggregates and design mix to the Engineer for approval, after which he shall be required to make a trial mix and obtain cube test results to validate the proposed mix. Only after receipt of satisfactory cube test results, the Contractor shall be permitted to use the mix in the construction of water retaining structures. The cost of designing and proving the proposed concrete mix shall be deemed to be included in the tendered rates.

The Engineer may call for revised mix designs at any stage during the Contract.

Where blinding layers are specified, the concrete shall be grade 15 MPa/19 placed and finished off to the final level.

In order to facilitate or increase the workability of concrete in the fresh/plastic state, to ensure watertightness without increasing the water/cement ratio, the Engineer may approve the use of an additive.

The workability of concrete shall be assessed by means of the slump test. The slump shall be between 75  $\pm$  25mm.

### Curing

Curing shall be done using a curing compound to the Engineer's approval and frequency or, in addition to water curing, well-secured plastic sheeting, shall be used. Water curing alone shall not be permitted. Where the Contractor fails to cure for a minimum of 7 days, no payment shall be made for the relevant pour of concrete.

## PSG 5.5.2 Batching

Add the following to this Sub-clause:

Batching of all strength concrete shall be by mass. Prescribed concrete may be batched by volume. Batching shall not be done by wheelbarrow.

All concrete shall be mechanically mixed.

Stand-by mixers of adequate capacity and with an independent power unit shall be maintained on site for immediate use in the event of breakdown of the regular mixers failure of the power supply.

## PSG 5.5.3.2 Ready-mixed concrete

Replace the contents of this Sub-clause with the following:

Concrete from a central concrete production facility other than on the construction site will be permitted if the facility is within a 40 km radius of the site and, apart from test results in terms of Sub-clauses 7.3.1, 7.3.2 and/or 7.3.3, test results obtained by such a production facility as part of its quality control system will be accepted for evaluation in terms of Sub-clause 7.3.4, provided the cubes are stored and cured on site.

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## PSG 5.5.5 Placing

Add the following Sub-clause:

## PSG 5.5.5.10 Casting of concrete in excavation

Structural concrete shall not be cast directly against the side of any excavation without the use of formwork unless prior approval has been obtained in writing from the Engineer.

Concrete used in pipe trenches for encasement and for the thrust / anchor blocks may be cast directly against the side of the excavation.

After vibration, the concrete shall be spaded in corners, in angles and against forms to release air bubbles which may have been trapped in these positions.

#### **PSG 5.5.7** Construction joints

Add the following to these Sub-clauses:

#### PSG 5.5.7.1 General

The edge of joints, exposed to view in the finished structure, shall be formed with suitable beads to provide a straight edge true to line and level.

All joints, other than expansion, contraction and other movement joints shall be treated as follows:

As soon as practical, but not before 15 hours after placing, the construction joint surface shall be prepared to receive fresh concrete. This preparation, as specified in Sub-clauses 5.5.7.3(a) to (d), shall be such as to remove all laitance or inert and strengthless material which may have formed and the specified chipping or sand blasting shall be such as to produce a roughened surface all over.

When concreting is interrupted concrete surfaces shall be protected from the sun as specified in Subclause 5.5.8(d) or by means of hessian kept damp until concreting is resumed.

All constructional joints shall be dealt with as specified in Sub-clause 5.5.7.3, as amended.

Unless construction joints between designated joints shown on the drawings are authorized by the Engineer in writing, concrete in the floor and wall shall be cast continuously between the designated joints shown on the drawings.

#### PSG 5.5.7.2 Formed joints (generally vertical or near vertical)

Formed joints will be considered to be designated joints as defined in Sub-clause 2.4.3. (The forming of a straight edge to a construction joint as specified in <u>PSG 5.5.7.1</u>, as amended, General does not constitute a formed joint).

Each joint shall be formed as shown on the drawings., complete with shear key rebates, waffle formwork, V-feature, waterstops, "Flexcell" or equal, approved joint filler, dowel bars and their PVC tubes, etc. as indicated.

### PSG 5.5.7.3 Non-designated joints

Any non-designated joints shall be identical to designated joints, as shown on the drawings, which would be

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used in similar positions and shall perform the same function.

Add the following Sub-clauses:

#### PSG 5.5.7.4 Joints between footings or floors and walls or columns

Construction joints between foundations, footings or floors and walls, columns or piers connected to them, shall not be made flush with the supporting surface, but shall be made at a distance above the footing or floor shown as on the drawings or approved by the Engineer. The "kicker" shall be cast as an integral part of the foundation, footing or floor.

#### **PSG 5.5.7.5** Construction Joints In Circular Reservoirs

Construction Joints In Walls Or Footings

Construction joints may only be placed where shown on the drawings or to the approval of the Engineer. Vertical joints in the walls of the reservoir are permitted only in the pre-stressed reservoir. These joints shall only be permitted radially on each side of stressing buttresses. No vertical joints shall be permitted in the reinforced concrete reservoir.

The entire contact surface along the joint in the concrete already cast shall be chipped or water jetted to expose the coarse aggregate to 5 mm beyond the surrounding matrix. Care shall be taken to ensure that the concrete structure is not damaged and that all loose material is removed. The surface must be thoroughly cleaned and wetted before casting against the joint.

All construction joints in the reservoir walls and footing shall be cast with water stops. Water stops shall be as per detail drawings. No construction joints will be permitted in the floor.

Payment shall be per linear meter. The rate shall include supply and casting in of the water stop as per detail drawings.

Construction Joints In Roof Slabs

Construction joints in the roof slab are permitted. The position of these joints shall be approved by the Engineer.

These joints shall be cast against a vertical shutter leaving a 15 mm deep by 20 mm wide recess which is sealed with a one part poly-sulphide sealer on completion. The sealer used and method of application shall be to the Engineer's approval.

No water stops are required; however, the completed roof shall be tested for water tightness in accordance with Sub-clause PSG 7.2.5(b), as amended. No additional payment shall be made for these joints.

**Expansion and Contraction Joints** 

Expansion and contraction joints shall be constructed as detailed on drawings using PVC or rubber water stops.

Water stops extruded from recycled material shall not be permitted.

Prior to bandaging, concrete surfaces shall be scabbled with a mechanical scabbler and water jetted with a 200 bar water jet. All joints shall be butt jointed and patched over.

The waterproofing bandage shall comprise of two elements:

(i) A 2 mm thick Hypalon or Combiflex strip

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(ii) (For Expansion joints) A 2 mm x 60 mm stainless steel strip with polythene backing bond breaker to the detail shown on the drawing.

The bandage shall be applied by coating the concrete and underside of the hyperlon bandage with an epoxy adhesive. The stainless steel strip is first positioned over the joint and the bandage with epoxy adhesive placed over the stainless steel strip. All trapped air shall be eliminated by hand rolling the bandage until the epoxy is fully cured.

Payment shall be per linear meter. The rate shall cover all costs for the supply and application of water stops and bandaging including the installation of the stainless steel strip.

### PSG 5.5.7.6 Application of primers and adhesives

The concrete to which the primer or adhesive is to be applied shall be dry and shall be cleaned of all dust, grit, grease, surface laitance and foreign matter by compressed air and/or water, solvents, or other suitable approved means. The Contractor shall provide on Site an approved moisture meter to measure the degree of dryness of the joint. This meter shall be made available to the Engineer for testing. The joint shall be approved for the application of the primer and adhesive if the moisture content of the concrete is less than or equal to 5%. It may be necessary to dry the concrete surfaces locally to reduce the moisture content to 5% or less.

### **PSG 5.5.7.7** Contraction and expansion joints

Contraction and expansion joints shall be formed true to line in smooth formwork.

All surfaces shall be thoroughly cleaned of all accretions of concrete or other foreign matter by scraping or other approved means.

Particular care shall be taken to compact the concrete around waterstops, edges, etc.

Rebates for seals shall be formed to required dimensions and lines, or cut true to line and size after floating the surface and before the final set of the cement has taken place. All rebates, etc., shall be adequately protected against damage until the completion of the work; accidental damage which in the opinion of the Engineer will impair the performance or appearance of the joint shall be made good by reconstructing the work as directed by the Engineer. Rebates for seals shall be grit blasted or wire brushed on all faces to remove surface laitance and thoroughly cleaned with soft brushes and/or compressed air jets, and, if necessary, dried by blow-lamp or other approved means before priming.

## PSG 5.5.7.8 Installation of waterstops in joints

Waterstops shall be held in the formwork so as to prevent air pockets forming underneath them. Special precautions shall be taken, to the approval of the Engineer, to ensure that all flexible waterstops are in perfect contact with well compacted void-free concrete.

## PSG 5.5.7.9 Installation of joint filler in expansion joints

Joints in the filler shall be neatly butted so as to exclude mortar from the joint. Edges of filler strip against waterstops, concrete, formwork, projections, etc., shall also be closely fitted to exclude mortar, so that there is no resistance (other than the compression of the filler) to the expansion movement for which the joint is designed.

Joint filler shall be fixed to the first cast of concrete with an approved adhesive and as directed by the Engineer.

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## PSG 5.5.7.10 Application of joint seals

Rebates shall be cleaned as required by <u>PSG 5.5.7.6 Application of primers and adhesives</u> and shall be inspected and approved by the Engineer's Representative before filling.

Joint sealants and primers shall be applied strictly in accordance with the manufacturer's instructions. Flow and non-slumping grades shall be used for horizontal and vertical joints respectively.

Immediately after the compound is applied the joint shall be protected against damage until completion of the Contract.

## PSG 5.5.8 Curing and protection

Add the following to this Sub-clause:

#### PSG 5.5.8.1 Horizontal surfaces

Surfaces of the concrete shall be treated with a curing compound complying with Sub-clause <u>PSG 5.5.8.3</u> <u>Post-Crystallization (Concentrate & Modified) slurry coat and curing.</u>

#### PSG 5.5.8.2 Formed surfaces

In order to improve the effectiveness of the crystallization treatment, the specified minimum time for the removal of the formwork shall be three days. All surfaces shall be pressure cleaned in accordance to the product manufacturer's requirement.

## PSG 5.5.8.3 Post-Crystallization (Concentrate & Modified) slurry coat and curing

The Concrete surfaces to receive a concentrate slurry coat treatment shall have an open capillary system to provide 'tooth and suction', and shall be free from scale, excess form oil, laitance, curing compounds and foreign matter.

Surfaces shall be smooth and uncovered from excess form oil, laitance and foreign matter. The concrete should be lightly water blasted to remove such material for surface preparation.

Concrete surfaces must be thoroughly saturated with clean water prior to application in order to ensure the growth of the crystalline formation deep within the pores of the concrete. Wetting to be done must be at least 1hr before application. If concrete surface dries out before application, it must be re-wetted.

The concentrate slurry is applied at a coverage rate of 1kg/m² using a semi-stiff nylon bristle block brush – work slurry well into the surface, filling surface pores and hairline cracks. The coating must be uniformly applied at approximately 1.25 mm thickness. The second modified slurry coat with the same application rate must be applied within 48 hours of the first coat. Light pre-watering between coats may be required when drying out signs appear. Detail coating applications shall be confirmed by the manufacturing.

Cure by spray for minimum of 3 days must be established once the final coat has been applied. Protect from rainfall, puddling of water, wind & frost for at least 48 hours after application. When plastic sheeting is used as protection allowance must be made for the coating to breathe.

#### PSG 5.5.8.4 Curing for normal concrete surfaces

The use of membrane curing compounds will be allowed on vertical faces or steeply inclined faces (i.e. steeper than 450 to the horizontal) of cast in situ members of the structures subject to the Contractor producing sufficient, satisfactory cube crushing strength test results where the crushing strength of cubes

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which have been cured with the proposed curing membrane and left exposed to the elements are compared with those of an equal number of water cured cubes. The crushing strength of cubes cured with the proposed membrane shall be at least 85% of the crushing strength of the water cured cubes.

Before any membrane curing compound is used, each batch shall be tested on a trial surface to ensure that it forms a satisfactory membrane, and any compound which is unsatisfactory in the opinion of the Engineer, shall be rejected. Curing membranes will be disallowed if permanent discolouration of the concrete takes place. Surfaces where curing membranes are used shall be treated in such a manner that the final concrete texture and colour blends in with the rest of the concrete work. Furthermore, the Engineer shall, at his discretion, require the Contractor immediately to adopt an effective alternative means of curing any area of the structure to which a membrane has been applied which, in the opinion of the Engineer, is unsatisfactory. The curing compound used shall be to the approval of the Engineer. Wax based curing compounds will not be permitted.

The curing compound shall be applied immediately as formwork is progressively stripped or, in the case of unformed surfaces, when the concrete has taken its initial set. It shall preferably be applied by spraying and the rate of application shall be strictly in accordance with the manufacturer's recommendations. A method of monitoring the area to which curing compound has been applied and the application rate shall be as approved by the Engineer and rigidly applied by the Contractor.

Surfaces of joint rebates, where elastomeric sealant is to be applied, shall be protected from contamination by curing compound by the use of masking tape.

#### PSG 5.5.9 Adverse Weather Condition

Replace the contents of Sub-clause 5.5.9.2 with the following:

No placing of concrete shall take place if the ambient temperature exceeds 32oC, or is likely to rise to above 32oC during the casting period or within eight hours after casting is completed.

If concrete is to be cast during times of high ambient temperature or hot drying winds, the Contractor shall be responsible for taking the necessary steps to keep the placement temperature as low as possible. Such steps include the spraying of the coarse aggregate with water, the painting of silos with a reflecting aluminium paint, the insulation of tanks and pipelines, and the protection of concrete ingredients against the direct rays of the sun. The area of the pour shall be shaded before and during concreting and the concrete shall be shaded from the time of mixing until eight hours after placing.

Windbreaks shall be erected if necessary.

#### PSG 5.5.10 Concrete surfaces

Replace the contents of this Clause with the following:

### PSG 5.5.10.1 Screeded finish

After placing and compacting the concrete on a top (unformed) surface shall be struck off with a template to the designated grades and tamped with a tamping board to compact the surface thoroughly and to bring mortar to the surface, leaving the surface slightly ridged but generally at the required elevation. No mortar shall be added, and noticeable surface irregularities caused by the displacement of coarse aggregate shall be made good by re-screeding after the interfering aggregate has been removed or tamped.

#### PSG 5.5.10.2 Wood-floated finish

Where wood-floating is ordered or scheduled, the surface shall first be given a finish as specified in Sub-

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clause <u>PSG 5.10.1</u>, as amended, <u>Screeded finish</u> and, after the concrete has hardened sufficiently, it shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface free from screeding marks.

#### PSG 5.5.10.3 Steel-floated finish

Where steel-floating is specified or scheduled, the surface shall be treated as specified in Sub-clause <u>PSG 5.5.10.1</u>, as amended, <u>Screeded finish</u> except that, when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screeded surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.

#### PSG 5.5.10.4 Granolithic screeds

#### PSG 5.5.10.4.1 General

Before placing any granolithic screeds the base concrete shall be chipped to expose the aggregate over 100% of the area to be screeded and soaked with water for at least 24 hours.

The base concrete shall be thoroughly cleaned by scrubbing and all standing water removed after soaking. A 1:2 cement/sand grout shall then be brushed into the prepared surface followed by the granolithic screed before the grout sets. The granolithic screed shall be of the driest feasible consistency with a slump not exceeding 50 mm and shall be formed true to profile and shape as required and shown on drawings. Before placing granolithic screed against an adjacent band of granolithic screed the edge of the latter shall be prepared by chipping back to firm material, wire brushing and brushing with grout as for the base concrete.

Granolithic screed shall be compacted to remove all air and shall be screeded and finished with a steel trowel to Degree of Accuracy 1.

The trowelling shall be carried out in the following stages:

- a) First as soon as the granolithic screed has been compacted and screeded.
- b) Second after 2 hours to close the surface and remove laitance.
- c) Third after a further 4 hours.

The time intervals are estimated as appropriate to normal temperature conditions and shall be varied by the Contractor to ensure a smooth dense finish.

Granolithic screed shall be cured as specified in Sub-clause 5.5.8(b), as amended, but shall additionally be protected from direct sunlight and drying winds as it is being placed.

All screeding necessary to accommodate mechanical equipment shall be done under the equipment supplier's supervision and in strict accordance with his instructions. It shall be commenced as soon as the equipment supplier gives notice on completion of erection and shall be finished expeditiously.

## PSG 5.5.10.4.2 Screed to floor (Where Specified)

Where screed is specified it shall be approximately 50 mm thickness is required to each floor.

The screed shall be formed from granolithic concrete as specified in Sub-clause <u>PSG 5.5.10.4 Granolithic screed</u>. The screed shall be applied after the mechanical equipment has been erected by the mechanical plant contractor and shall be laid in alternate concentric rings not greater than 2,00 m in width. A period of

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24 hours shall elapse before the intervening rings are laid.

The Contractor shall supply and fit a plywood template to the clarifier mechanism to act as a guide in determining the finished screed level. He shall not use the template to physically form the screed surface nor shall he place an excessive load on the scraper mechanism.

The Contractor shall only operate the scraper mechanism in strict accordance with the instructions of the manufacturer and the Engineer, and he shall make good any damage resulting from the use of the machinery.

Granolithic concrete shall be placed in position for a distance of approximately 3,0 m in front of the template and consolidated and roughly trimmed to level. The surface of the screed shall then be trimmed off to the level of the template which shall be moved as required by hand operation of the mechanism.

The trimmed surface shall be steel float finished and the edges of the ring left in a rough vertical condition to provide a key for the adjoining ring.

The preparation of the base concrete shall be done in accordance with Sub-clause <u>PSG 5.5.10.1</u>, <u>as amended, Screeded finish</u>. Before placing granolithic concrete against an adjacent band of granolithic concrete the edge of the latter shall be prepared by chipping back to firm material, wire brushing, and brushing with grout as for the base concrete.

Concrete to manholes shall be watertight concrete.

## **PSG 5.5.11** Watertight Concrete

Add the following to this Sub-clause:

The water-tightness of the reservoirs, all liquid retaining structures and concrete chambers shall be tested as indicated below:

On completion the structure shall be cleaned and shall be filled with water at an approved rate. After allowing a period of absorption of 3 days, the depth of water shall be recorded and the water allowed to stand for a further 7 days during which the total permissible drop in water level after allowing for evaporation should not exceed 10 mm.

In the event of any leakage or dampness being evident at any stage of the filling or testing or in the event of the Engineer considering the final degree of water-tightness to be unsatisfactory, the Contractor when ordered by the Engineer shall discontinue such filling or testing and shall, at his own expense, immediately take approved steps to rectify the leakage and to make the work thoroughly sound to the complete satisfaction of the Engineer. All such rectification work shall be continued assiduously until a satisfactory test is obtained, which shall prove to the Engineer that water-tightness has been obtained.

If required by the Engineer, the structure shall be retested before the expiry of the Defects Liability Period.

The floors, walls and roofs of all water retaining structures shall be considered to be watertight concrete structures.

The Works will not be certified complete until the structure has been proved by testing to be watertight to the satisfaction of the Engineer.

The cost of the above tests will be deemed to be included in the rates for the relative concrete to be provided by the contractor.

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#### PSG 5.5.14 Defects

Add the following to this Sub-clause:

All defects shall be repaired as soon as possible after the formwork has been removed and the Engineer has inspected the concrete. A statement of the method to be used for each repair shall be submitted to the Engineer for his approval before any work is carried out. The Engineer may prohibit the further placing of concrete in the particular area concerned until he is satisfied that the repair has been satisfactorily executed.

Add the following sub-clauses:

## PSG 5.5.16 Casting pipes and specials in concrete

Where the pipe or special is supplied by others the Contractor may elect to provide a box-out in the wall and cast the unit in at a later stage. When constructing such box-outs reinforcement shall not be cut but shall run through the opening. Reinforcement shall be cut and/or bent out at a later stage to suit the item being cast in. After installation of the item the remaining reinforcement shall be bent back in position.

Where entry holes for pipes/specials have been provided in the walls, the Contractor shall be responsible for the concreting in of such pipes/specials regardless of whether or not these have been supplied by himself.

Before commencing the positioning in holes of any pipes/specials the Contractor shall:

remove all formwork and boxing remaining in the holes;

make any alternations required to the position and shape of the holes and cut reinforcement to suit the item, as directed by the Engineer; and

thoroughly scabble the sides of the holes so as to obtain a satisfactory bond surface for the new concrete and treat the surface as specified in Sub-clause 5.5.7.3, as amended.

Immediately prior to the placing of mortar and concrete around the pipes, the surface of the existing concrete shall be saturated with water. All surplus water shall be removed and the surface covered with a layer, approximately 12 mm thick, of mortar made of the same mix as the concrete in which the pipes/specials are to be placed.

The concrete ingredients shall be mixed and placed as dry as possible to obtain a dense, waterproof concrete. The concrete shall be carefully worked around the puddle flange, if any, and the pipe barrel or body of the special, and shall be vibrated in layers so as to obviate a falling away from pipe/special surfaces of the concrete already placed. The whole shall, when set, form a dense, homogeneous, and waterproof mass.

## PSG 5.5.17 Precast paving slabs

The area to be paved shall be compacted to a minimum of 93% Mod AASSHTO density (100% for sand), trimmed and then treated with an approved weedkiller, with care being taken to avoid contaminating surrounding areas. The paving slabs shall be laid on a sand bed approximately 25 mm thick, which shall be graded to the required levels and slopes as approved by the Engineer. The joints between the slabs shall be 2 mm to 6 mm wide and shall be grouted with cement mortar. Gaps in the pattern of slabs shall be filled with Grade 15MPa/19 concrete and given a wood floated finish.

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## PSG 5.5.18 Items to be cast in or grouted into concrete

## PSG 5.5.18.1 Fixings for equipment supplied under separate contract

- a) The Contractor will be responsible for the forming of pockets to the details shown on the drawings to accommodate holding down bolts for equipment supplied under a separate contract. Holding down bolts will be supplied by and positioned by others.
- b) After casting of the concrete all shuttering shall be removed and the sides of the bolt holes and surface on which the machine base is to be placed shall be scabbled to remove all defective concrete, laitance, dirt, oil, grease and loose material.
- c) Upon completion of the positioning and alignment of equipment and when instructed by the Engineer the Contractor shall in collaboration with the mechanical contractor, grout up pockets and baseplates by filling pockets and voids under the baseplates with an approved non-shrink grout.

## PSG 5.5.18.2 Fixings for items supplied under this Contract

Holding down bolts or other fixings required for the installation of items supplied under this Contract shall be provided by the Contractor. These fixings shall be cast in or grouted into pockets or installed by other means as approved by the Engineer.

Where anchor bolts are used which are installed into holes drilled into concrete or masonry these shall be of a type approved by the Engineer. All such bolts used shall be manufactured from stainless steel or a metal with a resistance to corrosion equal to that of grade 304 stainless steel. The metal used for bolts shall be compatible with galvanized mild steel.

Anchor bolts shall have minimum pull-out forces and minimum ultimate lateral loads at least equal to those specified below:

Specified Anchor Size	Minimum Pull-out Force (kN)	Minimum Ultimate Lateral Load (kN)
M6	10,35	7,60
M8	13,70	11,15
M10	19,44	15,95
M12	31,85	26,90
M16	50,45	45,80
M20	60,50	71,20

## PSG 5.5.18.3 Plastic puddle pipe items supplied under this Contract

Plastic puddle pipe cast-in fittings as indicated per drawing required for the installation of items supplied under this Contract shall be provided by the Contractor. These fittings shall be cast in or grouted into pockets or installed by other means as approved by the Engineer.

All such fittings shall be manufactured from uPVC CLASS 16 according to the drawings in accordance with SANS 966. The welded puddle shall be governed in accordance with standards DVS 2207 and SANS 10268. All welded items shall be issued with an accredited quality certificate from an accredited manufacturer.

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## PSG 5.5.18.3 Supervision

The Contractor shall be responsible for ensuring that the erection of the concrete work is carried out under the supervision of a person with adequate knowledge of the mixing, transporting, placing and curing of concrete.

Programme and Plant

Prior to carrying out any concrete work, the Contractor shall obtain the approval of the Engineer in respect of:

Structural programme,
Concrete plant details,
Materials to be used in concrete,
Details of concrete,
Construction joints

#### **PSG7 TESTS**

## PSG 7.1.2 Frequency of sampling

Add the following to this clause:

One sample shall consist of three concrete test cubes.

For each sample taken the position in the structure shall be recorded where the batch represented by that sample is placed as also the date sampled.

Sampling of concrete of a particular grade shall be as specified in Sub-clause 7.1.2 with the following frequency of sampling referred to in Sub-clause 7.1.2.2 being amended to read as follows:

"A minimum of 4 samples per day of each grade of concrete placed or 6 samples for pours in excess of 10 m3 shall be taken."

## PSG 7.2 Testing

Add the following Sub-clauses:

## **PSG 7.2.5** Testing Watertight Concrete

The Clear/potable water retaining structures shall be disinfected before testing. Any re-testing that may be required shall be at the Contractor's expense.

The entire inside surface of the structure including columns and roof shall be thoroughly hosed down with water and brushed until properly cleaned off all dirt and other foreign matter.

The floor of the structure shall then be flooded to a depth of 300 mm with purified water, with calcium hypochlorite solution being added gradually to mix thoroughly as the water enters. The water shall be dosed with calcium hypochlorite at a rate of 150 grams per cubic meter of water entering the structure. The entire inside surface shall again be scrubbed using this water. The workers engaged in this operation shall wear clean rubber boots. On completion the water is to be run to waste once the free chlorine is reduced to an acceptable level, and the floor of the structure shall be swept clean.

The chlorinated water shall be stored until the free chlorine level has dropped to an acceptable level. Excess dirt swept from the floor into the sump may be discharged subject to written approval being obtained from the Local Authority.

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Payment shall be a lump sum. The rate shall cover the costs of all materials and water used. The structure shall be tested for water tightness in accordance with BS 8007 1987 Section 9. Testing of the Structure:

For testing the liquid retention, the structure shall be cleaned and initially filled to the normal maximum level with the water at a uniform rate of not greater than 2 m in 24 hours.

When first filled, the water level should be maintained by the addition of further water for a stabilising period while absorption and autogenous healing take place. After a stabilization period of 21 days, refill (top up) and record the water level at 24 hour intervals for a test period of 7 days. During this 7 day test period the total permissible drop in level, after allowing for evaporation and rainfall, should not exceed 10 mm.

Notwithstanding the satisfactory completion of the test, any evidence of seepage of the liquid to the outside faces of the liquid-retaining walls shall be assessed by the Engineer against the requirements of the specification. Any necessary remedial treatment of the concrete, cracks, or joints shall be carried out from the liquid face where practicable. If a lining is used for this purpose, it shall be sufficiently flexible and not be in any way detrimental to the water quality.

In the event of any leakage or dampness being evident at any stage of the filling or testing or in the event of the Engineer considering the final degree of water-tightness to be unsatisfactory, the Contractor when ordered by the Engineer shall discontinue such filling or testing and shall, at his own expense, immediately take approved steps to rectify the leakage and to make the work thoroughly sound to the complete satisfaction of the Engineer. All such rectification work shall be continued assiduously until a satisfactory test is obtained, which shall prove to the Engineer that water-tightness has been obtained.

If required by the Engineer, the structure shall be retested before the expiry of the Defects Liability Period.

The Works will not be certified complete until the structure has been proved by testing to be watertight to the satisfaction of the Engineer.

Testing of the Roof of water retaining structures

The roof shall be tested on completion by using a hose or sprinkler system to obtain a sheet flow over the whole area of the roof for a period of not less than 6 hours.

The roof shall be considered satisfactory if no leaks or damp patches appear on the soffit.

## PSG 7.2.6 Durability Testing:

Concrete shall comply with the durability parameters defined below:

Water Sorptivity:

Sorptivity is sensitive to surface effects and may be used to assess the effectiveness of initial curing.

Oxygen Permeability:

Permeability is sensitive to changes in the coarse pore fraction and is thus a means of assessing the degree of compaction of concrete. It may be used to quantify the microstructure of the concrete and is sensitive to macro-defects such as voids and cracks. Permeability shall be tested in a manner approved by the Engineer.

Chloride Conductivity:

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Chloride conductivity provides a method of characterisation of concrete in the marine environment and may be used to assess the chloride resistance of concrete.

Unlike oxygen permeability and water sorptivity, chloride conductivity is not really a measure of construction quality, but it shall be used for materials selection and design of mixes in aggressive chloride conditions. It will therefore only be used as a check on mix designs during the initial stages of construction.

#### Concrete Cover:

Concrete cover is a dimensional indicator of cover concrete depth. Cover concrete is the outer concrete layer which protects the internal reinforcing steel, and its depth varies according to the requirements of the different environmental exposure classes.

Test for cover shall be conducted using an approved calibrated electromagnetic cover meter.

This test shall be conducted when instructed by the Engineer to confirm that the specified depth of concrete cover has been achieved. The cover meter tests shall cover at least 1 m2 for every 10 m2 exposed. The average cover of the 1 m2 subjected to the test shall be used to determine the payment, unless the Contractor chooses to carry out additional tests as detailed under clause PSG 7.3.8. The cover meter must be calibrated for each project by drilling and measuring actual cover in at least 3 locations to validate the readings.

Minimum cover to reinforcing for the utility building and guard house shall be as indicated on the drawings.

#### General:

Durability predictions will be based on the following tests that shall be arranged by the contractor. The durability testing shall be carried out by a laboratory approved by the Engineer.

For testing, water sorptivity, oxygen permeability and chlorine conductivity, cores of 68 mm diameter shall be extracted from the structure when the concrete reaches the age of at least 28 days and tested for the durability criteria set out in PSG 7.3.7. The frequency of the testing at the start of the contract shall be such that there is at least one test (consisting of 2 cores) per discrete concrete element, or per 15 m3 poured (whichever is the lesser), until such time that the Engineer is satisfied that the specified criteria are consistently achievable. Hereafter testing shall be limited to one test per discrete concrete element or maximum concrete pour of 40 m3 (whichever is the lesser), or as directed by the Engineer. Depending on access requirements, the frequency and locations of the tests may be changed to suit site requirements as directed by the Engineer. Note that for decks and walls, the cores shall be taken on the exposed faces of the concrete i.e. the soffit and side wall face, taking care not to cut the reinforcing bars. Where the cores do contain pieces of reinforcing steel, they shall not be used for the tests, particularly in the chloride conductivity test or where bleeding cavities may have formed.

The cores shall be extracted through the cover concrete from the constructed concrete element and a slice (25 mm thick) shall then be cut from the outer surface of this core such that the slice is representative of the middle layer of the cover concrete, i.e. the middle layer being a 25 mm thick slice of concrete, 5 mm from the exposed outer surface extending in towards the reinforcement, and tested. The positions at which the cores shall be extracted shall be as indicated by the Engineer.

Filling of the holes left by the drilling of the cores shall be the responsibility of the contractor and shall be carried out using an approved proprietary non-shrink repair mortar so as to restore structural integrity and durability of the structural element tested. The cost of drilling and filling of the holes shall be included in the

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rate make-up of pay items for durability testing

## PSG 7.2.7 Depth Of Concrete Cover

The procedure for testing for depth of reinforcement from concrete surface shall be in accordance with the manufacturer's requirements for the relevant electromagnetic cover meter. The number of readings taken to each 1 m2 to be tested shall be such that an accurate average cover can be determined for the tested area.

## PSG 7.2.8 Shrinkage

The dry shrinkage tests shall be conducted in accordance with SABS 1085. The drying shrinkage shall not exceed 0.04%.

## **PSG 7.3** Acceptance Criteria for Strength Concrete

Add the following Sub-clauses:

## PSG 7.3.6 Durability Parameters Acceptance Ranges

When tested in accordance with the test procedures described below for each potential durability parameter, the concrete shall meet the limits given in the tables below:

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## PSG 7.3.6.1 Water Sorptivity And Oxygen Permeability

Table PSG 7.3.6.1 Water Sorptivity and	Oxygen Permeability		
	Test No. / Description / Unit		
Acceptance Category	Water Sorptivity	Oxygen Permeability	
	(mm/h)	(log scale)	
Concrete made, cured and tested in laboratory	6	> 10.0	
Full acceptance of in-situ cast concrete	< 8	> 9.15	
Conditional acceptance of in-situ cast concrete (with remedial measures)	8 - 15	8.75 – 9.15	
Rejection	> 15	< 8.75	

### PSG 7.3.6.2 Chloride Conductivity

Table PSG 7.3.6.2 Chloride Conductivity (severe to very severe conditions)									
Concrete	100% F	.C	10% CSF 30%		30% FA	30% FA		50% GGBS	
Curing Period	28d	90d	28d	90d	28d	90d	28d	90d	
Full wet cured	1.25	1.00	0.50	0.45	1.50	0.40	1.25	1.00	
Moist cured (3 – 7d)	1.75	1.60	0.60	0.55	2.25	1.25	2.25	2.00	

#### PSG 7.3.6.3 Concrete Cover

Table PSG 7.3.6.3 Concrete Cover				
Took Description	Specified Cover	Acceptance Range		
Test Description	(mm)	Minimum	Maximum	
Concrete cover to	20 – 30	As specified	As specified + 5 mm	
reinforcement	30 - 80	As specified	As specified + 10 mm	

## **PSG 7.3.6** Durability Index Tests

Testing for durability shall be carried out using test panels which are constructed with the same concrete mix, formwork type, and compaction and curing methods as it actually used in the liquid retaining structure. The test panel shall be 150 mm thick, and of at least 0.5 m sides. Samples for testing shall be obtained from the face of the test panel that mimics the cast face of its intended use in the structure, after a period of 28 days curing. The following test panels shall be constructed and tested:

- a) One test as part of trial mixes
- b) One test for the first 50m3 batch of concrete.
- c) Thereafter 1 set for every discreet element namely floor slabs, sloped floor slabs, walls and columns (4 No. total) upon instruction by the Engineer.

Any additional durability tests will be paid for as extras. The durability tests are to be carried out by an accredited laboratory approved by the supplier in terms his Quality Management System. Each test as quantified in the Bill of Quantities shall include each of the following tests:

- a) Oxygen permeability index test (OPI)
- b) Water sorptivity index test (including porosity)

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c) Chloride conductivity index test

(e.g. One No. durability test includes permeability testing, water sorptivity testing and chloride conductivity testing).

The test procedures for these tests are obtained from the University of Cape Town Durability Index Test Manual.

Two sets of four cores each (70 mm Dia.) are required from a test panel: four cores for the oxygen permeability and water sorptivity tests; four cores for the chloride conductivity test. The required target values for the tests are summarized in the table below. (These are the average values for the four core specimens used for the testing on each occasion). These values are required to be met Simultaneously.

PSG 7.3.6.1 Durability Test Parameters

DURABILITY INDEX TEST	TARGET VALUE
Oxygen permeability index	≥ 10 (log scale)
Chloride conductivity index	≤ 0.6 m.sec/cm
Water Sorptivity	≤ 8 mm / hr0.5

In the case that the results do not comply with the above values in the above table, another set of cores shall be drilled from the test panel. Where the second set of cores fails to comply with target values, a drum from that batch of concrete shall be sampled by way of drilling four cores for each of the oxygen permeability test and the chloride conductivity test. If these sets of cores fail any of the target values as stated above, the results will be reviewed by the Engineer who will assess them in accordance with the required durability parameters. If these results are still not found to be satisfactory by

the Engineer, the Contractor shall propose alternative methods to improve the durability of the mix and/or any items cast. The contractor shall keep records of all tests results relating to the samples tested.

The contractor shall ensure that site testing is carried out by a trained person. The contractor shall ensure that all off-site laboratory testing is performed in an approved laboratory approved in terms of their Quality Management System.

## **PSG 7.3.7** Criteria for the Compliance with the Requirements

No extra payment shall be made for cube strength testing. The cost of cube strength testing shall be included in the rates tendered for concrete.

Water used for testing shall be free of charge except for failed tests when water will be charged at standard municipal rates.

In the event that the actual achieved average cube strengths of an element are less than 85% of the target mean strength, the Engineer may instruct the taking of cores for additional strength testing. The cost of taking the cores and repairing the holes in the structures shall be for the Contractor's account.

The Engineer will conduct routine tests for the durability parameters on cores taken from the completed elements during the construction, the costs for which shall be to the Employer's account unless the parameters are not met.

The test results shall be accepted or rejected based on the criteria as set out in PSG 7.3.6.1 based on the following categories:

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## Full Acceptance:

Concrete shall be accepted unconditionally and full payment shall be made.

#### Conditional Acceptance:

Concrete may be accepted at the Engineer's discretion with a warning that construction methods be examined to improve the durability criteria. A reduced payment shall be applied to all the relevant pay items under SABS 1200 G for the non-conforming element or concrete pour. Alternatively, the Contractor may elect to carry out remedial work to improve the durability of the concrete to the criterion of "Full Acceptance" to the satisfaction of the Engineer, and receive full payment. All proposed remedial measures shall be subject to the approval of the Engineer. The cost of all such remedial work shall be for the Contractor's account.

## Rejection:

The concrete shall be removed and replaced with fresh concrete at the expense of the Contractor, as directed by the Engineer.

Should the test result(s) indicate conditional acceptance or rejection of the item tested, the Contractor shall have the option of carrying out additional tests on that item, at his own expense, to confirm or disapprove the original test result(s). Not more than two such additional tests shall be carried out.

## PSG 7.3.8 Procedure in the Event of Non-Compliance with the Requirements

Structural concrete elements or concrete pours shall be represented by test cubes and extracted cores, which shall be tested for strengths and the appropriate durability parameters.

If the durability parameters have been proved acceptable, the costs for such testing shall be borne by the Employer. However, where non-compliance to the specified parameters has been identified, the assessed element shall be rejected and at the Engineer's sole discretion any of the following measures may be considered at the Contractor's expense:

Coating with an approved product specifically designed to improve the non-conforming parameter depending on the severity of the test results.

Acceptance at reduced payment.

Demolition and rebuilding.

#### PSG 7.3.9 Tests Ordered By the Engineer

One concrete cube strength test shall comprise the results of tests carried out on three standard test cubes made from concrete sampled from one batch of concrete in accordance with these specifications.

Percentage payment for concrete cover shall be based on the average result of the total number of cover meter tests performed on a particular concrete element.

The overall percentage payment applied to a concrete member shall be based on the average of the percentage payments applicable to each durability parameter, together with the percentage payment based on the strength requirements described in the project specifications.

The reduced payments shall apply to the relevant payment items scheduled in the Schedule of Quantities.

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## **PSG 7.3.10** Determination Of Reduced Payment

Payments for all durability concrete shall be based on the test results. The durability parameters are calculated according to Tables PSG 7.3.10.1, PSG 7.3.10.2 and PSG 7.3.10.3 below.

## **Table PSG 7.3.10.1 Water Sorptivity**

TEST	Coastal (≤ 5 km fro 15 km up river valle		Inland (> 1 km from coast)	
	TEST RESULT	% PAYMENT	TEST RESULT	% PAYMENT
	< 8	100%	< 8	100%
j į	8 < 12	90%	≥ 8 < 12	90%
ater rptivity m/h)	12 < 15	85%	≥ 12 < 15	85%
Wat sorp (mr	≥ 15	0%	≥ 15	0%

## Table PSG 7.3.10.2 Oxygen Permeability

TEST	Coastal (≤ 5 km fro 15 km up river valle		Inland (> 1 km from	coast)
(e)	TEST RESULT	% PAYMENT	TEST RESULT	% PAYMENT
ty scal	> 9.15	100%	> 9.5	100%
)xygen Permeability ndex (log sca	> 9.0 ≤ 9.15	90%	>9.25 ≤ 9.5	90%
/ger me	> 8.75 ≤ 9.0	85%	>9.0≤ 9.25	85%
Ox)	≤ 8.75	0%	≤ 9.0	0%

## **Table PSG 7.3.10.3 Concrete Cover**

TEST	Coastal (≤ 5 km fr to 15 km up river		Inland (> 1 km from	n coast)
	TEST RESULT	% PAYMENT	TEST RESULT	% PAYMENT
þe	≥ 30 ≤ 40	100 %	≥ 30 ≤ 40	100 %
n m cific	≥ 25 < 30	40 %	≥ 20 < 30	40 %
30 mm specified	< 25 or > 40	0 %	< 20or> 40	0 %
	≥ 40 ≤ 50	100 %	≥ 40 ≤ 50	100 %
40 mm specified	≥ 35 < 40	40 %	≥ 30 < 40	40 %
40 sp.	< 35 or > 50	0 %	<30or>50	0 %
p	≥ 50 ≤ 60	100 %	≥ 50 ≤ 60	100 %
50 mm specified	≥ 45 < 50	40 %	≥ 40 < 50	40 %
eds 20	< 45 or > 60	0 %	< 40or> 60	0 %
70	≥ 60 ≤ 70	100 %	≥ 60 ≤ 70	100 %
60 mm specified	≥ 55 < 60	40 %	≥ 50 < 60	40 %
60 mm specifie	< 55 or > 70	0 %	< 50or> 70	0 %
g	≥ 65 ≤ 75	100 %	≥ 65 ≤ 75	100 %
65 mm specified	≥ 60 < 65	40 %	≥ 55 < 65	40 %
65 mm specifie	< 60 or > 75	0 %	< 55or > 75	0 %

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	70	≥ 75 ≤ 85	100 %	≥ 75 ≤ 85	100 %
	⊑ <u>ë</u>				
	E Gi	≥ 70 < 75	40 %	≥ 65 < 75	40 %
	75 mm specified	< 70 or > 85	0 %	<65 or> 85	0 %
	80 mm specified	≥ 80 ≤ 90	100 %	≥ 80 ≤ 90	100 %
	mn ecif	≥ 75 < 80	40 %	≥ 70 < 80	40 %
	90 80	< 75 or > 90	0 %	<70 > 90	0 %

Percentage payment for concrete cover shall be based on the average result of the total number of cover meter tests performed on a particular concrete element.

The overall percentage payment applied to a concrete member shall be based on the average of the percentage payments applicable to each durability parameter, together with the percentage payment based on the strength requirements described in the project specifications.

The reduced payments shall apply to the relevant payment items scheduled in the Schedule of Quantities.

## PSG 7.3.11 Grouting

The Contractor shall, where so ordered, carry out a site test for each grouting procedure. The tests shall be carried out on a dummy bedplate similar in configuration to that which is to be grouted, but not exceeding 1 m2 in area unless otherwise ordered. When the dummy bedplate is dismantled, the underside shall show a minimum grout contact area of 80% with reasonably even distribution of the grout over the surface grouted except that, in the case of expanding grout, the minimum grout contact area shall be 95%. The test shall show evidence of good workmanship and materials and the results shall be to the satisfaction of the Engineer.

The Contractor shall, when so ordered, make standard test cubes from various grout mixtures and also subject them to compression tests to determine whether the specified strength has been achieved. Test procedures shall comply with the relevant requirements of Sub-clauses 7.2.1 to 7.2.3.

#### **PSG 8 MEASUREMENT AND PAYMENT**

#### PSG 8.1.1 Formwork

Add the following Sub-clause:

#### PSG 8.1.1.7 Edges of blinding layer

No separate payment will be made for formwork to the edge of the blinding layer. The rates tendered for concrete to the blinding layer shall cover the cost of such formwork.

#### PSG 8.1.1.8 Chamfers and fillets

No additional payment will be made for chamfers and fillets up to 40 mm wide. Larger fillets and chamfers will be measured by length in accordance with Sub-clause 8.2.5.

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## PSG 8.1.2 Reinforcement

Add the following to Sub-clauses 8.1.2.2 and 8.1.2.3:

Notwithstanding the method of measuring and paying for reinforcement specified in Sub-clauses 8.1.2.2 and 8.1.2.3, reinforcement will be measured and paid for as scheduled.

#### PSG 8.1.3 Concrete

Add the following to Sub-clauses 8.1.3.3:

The rates for concrete shall also cover:

the use of dolomitic aggregate where prescribed,

the cost of the preparation of design mixes by an approved laboratory and submission for approval by the Engineer,

screeded finish of unformed surface as specified in <u>PSG 5.5.10.1</u>, as amended, <u>Screeded finish</u>, and inclusion of admixtures where specified.

#### PSG 8.2 Scheduled Formwork Items

Add the following payment item to this clause:

PSG 8.2.7 Kickers Unit: m<sup>2</sup>

Formwork to the edges of kickers will be measured as plane (or circular) vertical (not as narrow widths).

#### PSG 8.2.8 Edges of blinding layer

No separate payment will be made for formwork to the edge of the blinding layer. The rates tendered for concrete to the blinding layer shall cover the cost of such formwork.

#### PSG 8.2.9 Chamfers and fillets

No additional payment will be made for chamfers and fillets up to 40 mm wide. Larger fillets and chamfers will be measured by length in accordance with Sub clause 8.2.5.

Unit: m<sup>2</sup>

Unit: m<sup>2</sup>

#### PSG 8.4 Concrete

#### PSG 8.4.4 Unformed surface finishes

Add the following to this Sub-clause:

The rates for unformed surface finishes shall cover the cost of providing the respective surface finish as specified in <u>PSG 5.5.10</u>, as amended, <u>Concrete Surfaces</u>.

#### PSG 8.5 Joints

Add the following to this clause:

Only designated joints as shown on the drawings will be measured for payment according to the length of each type of joint constructed. The rate shall cover the cost of all materials, labour and plant required to construct each type of joint specified on the drawings, including the cost of all shuttering, treatment of the

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joint as specified in Sub-clause 5.5.7.3, as amended, the provision of chamfers as specified where concrete is exposed, as well as testing and repairing where necessary.

Non-designated joints will not be measured for payment.

Add the following Sub-clause to this payment clause:

#### PSG 8.5.1 Formed joints

Formed joints will be measured by the length of the joint.

The rates shall cover the cost of all operations and materials specified in Sub-clause 5.5.7, as amended, and Sub-clause PSG 5.5.7.2, as amended, Formed joints (generally vertical or near vertical), and detailed on the drawings such as joint filler, dowel bars and tubes, bitumen coats, etc., but excluding waterstops or waterbars.

Waterstops and waterbars will be measured by length separately for each type.

## PSG 8.7 Grouting

Add the following to this payment clause:

Grouting of base plates and equipment bases will be measured by the volume of grout used.

The rate shall cover the cost of the supply and floating in of grout under the plates to ensure solid and complete filling of the gap.

#### PSG 8.8 HD Bolts and miscellaneous Metal Work

Unit: t

Unit: m<sup>2</sup>

Add the following to this payment clause:

Fixing of holding down bolts will be measured by number. The rate shall cover the cost of all things necessary to ensure that the bolts are effectively and rigidly held in position during casting, complete with sleeved pockets, all as detailed on the drawings.

Add the following payment items:

## PSG 8.9 Impervious membrane

Unit: m²

Unit: m

The impervious membrane will be measured by the surface area covered excluding laps and wastage. The rate shall cover the cost of the supply, laying, jointing of sheets as recommended by the supplier and final trimming of outer edges.

#### PSG 8.10 No-fines concrete

Unit: m<sup>3</sup>

No-fines concrete will be measured by volume.

The rate shall cover the cost of supplying materials, constructing and placing in position the no-fines concrete, and shall include for the steel floated 20 mm mortar skim.

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Unit: No.

Unit: m<sup>2</sup>

Unit: m<sup>2</sup>

Unit: m<sup>3</sup>

Unit: No.

### PSG 8.11 Items cast in concrete

Items cast in concrete will be measured by number separately for each type of item.

Notwithstanding Sub-clause 8.2.6, the rate shall cover the cost of fixing in position and casting in the item as construction proceeds, irrespective of whether the Contractor chooses to fix the item in the formwork and cast it in directly or to box out a hole and grout the item in subsequently.

The item will be measured and paid separately.

The rate for the puddle pipes shall cover the cost of all things necessary to ensure that the fitting are effectively and rigidly held in position during casting including the certification and all as detailed on the drawings. Repairs for leaking cast in items will not be paid for.

#### PSG 8.12 Granolithic screeds

Special floor finish will be measured by area. The rate shall cover the cost of the supply and application of the specified material, complete as specified by the manufacturer and to the approval of the Engineer. Repairs to unsatisfactory work will not be paid for.

Measurement of granolithic screeds will be by the surface area covered.

The unit rate or lump sum shall cover the cost of all materials, labour and equipment required to provide the screed as specified in Sub-clause <u>PSG 5.5.10.4</u>, as amended, <u>Granolithic screeds</u>. The rate shall include the steel float finish.

## PSG 8.13 Precast paving slabs

Precast paving slabs will be measured by the area paved.

The rate shall cover the cost of compacting the area, application of weed-killer, supplying, laying and bedding the slabs, grouting the joints and filling any gaps, all as specified.

#### PSG 8.14 PFA concrete

Measurement and payment for PFA concrete shall be as specified in Sub-clause 8.1.3 as amended.

The tendered rate shall cover all costs in connection with the supply, storage, handling on site and mixing in of PFA.

#### PSG 8.15 Watertightness test

The watertightness test will be paid by a lump sum separately for each structure.

The sum shall cover the cost of all labour, equipment and materials to carry out the tests, as specified in Sub-clause <u>PSG 5.5.11</u>, <u>as amended, Watertightness test</u>, to rectify faults and to achieve a test result to the satisfaction of the Engineer.

The sum shall include for all water required over and above that required for one filling of the water retaining structure based on the assumption that water will be available.

A provisional item is provided for an extra payment to the above to allow for the water not being available in time and the Contractor has to make his own other arrangements for providing water for testing. Such an arrangement shall only come into effect on the Engineer's instruction.

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#### PSG 8.16 Miscellaneous Metalwork

Unit: No.

Payment shall be by number. Separate items shall be scheduled for the following where required:

#### Manhole covers

The manhole cover in the reservoir roof shall be installed to the details shown on the drawings. The rate shall include supply, bitumen coating, installation and casting of the frame into the supporting concrete.

#### Reservoir ventilators

The reservoir ventilators in the reservoir roof shall be installed to the details shown on the drawings. The rate shall include fabrication, galvanising, shuttering, grouting and installation.

#### Step irons

Cast iron step irons shall be cast into the side of the reservoir wall, sump and manholes as detailed. The rate shall include for the supply and installation of the step irons.

## PSG 8.17 Black Plastic Bond Breaker Unit: m<sup>2</sup>

A 500 micron black plastic continuous layer is to be laid over the no-fines concrete under the reservoir floor. The side and end laps shall not be less than 100mm. Just before casting the sheeting shall be perforated in a grid pattern at 1 m centres.

Payment shall be by the square meter laid. Care shall be taken not to rip or tear the sheeting. All repairs shall be at the Contractor's expense.

#### PSG 8.18 Teflon Sliding Bearings

Neoprene (Kilcher or similarly approved) Teflon sliding bearings shall be placed on the top of the reservoir wall prior to casting the roof slab. A 3T50/75 bearing shall be used for the reinforced concrete reservoir, while a 3T50/100 bearing shall be used for the prestressed concrete reservoir. The top of the wall shall be cast to a smooth steel float finish.

Payment shall be per linear metre for the preparing and placing of the bearings. The rate shall include the supply, laying, jointing and masking of the bearings to the polystyrene strip.

## PSG 8.19 Polyurethane sealants

Unit: m

Unit: m

A polyurethane sealant (UV-resistant) shall be used on the outside joint between the reservoir roof and walls to the details shown and shall be finished off neatly leaving a smooth regular finish.

Payment shall be per linear metre. The rate shall include the supply, preparation, sealing and finishing.

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**Unit: Prov Sum** 

PSG 8.20 Commercial Laboratory

A Provisional Sum for the services of a commercial laboratory has been included in the Bill of Quantities for the Engineer's Acceptance Testing. The use of this laboratory is for additional testing required over and above the testing specified in SANS 1200 G and the variations to SANS 1200 G specified above. Testing shall only be paid on written instruction for additional testing from the Engineer.

The procedure for sampling and manufacturing, storing, curing and testing test cubes shall be in accordance with SABS 863.

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PSL: MEDIUM PRESSURE PIPELINE (Applicable to SABS 1200 L – 1983)

PSL 3: MATERIALS

PSL 3.7: OTHER TYPES OF PIPES

Add the following new sub-clause:

#### PSL 3.7.3: GALVANISED RESTRAINED STEEL PIPES

The piping system shall have a spigot and socketed and fittings that shall comply with SANS 966-2. All pipes shall be supplied in 6m lengths with the length tolerance as per SANS 966-2

PSL 7.3: STANDARD HYDRAULIC PIPE TEST

PSL 7.3.1: HYDRAULIC TESTING

Add the following sub-clauses:

#### **PSL 7.3.1.6: GENERAL REQUIREMENTS**

"The Contractor shall make his own arrangements for the procurement of water and for filling of sections of the pipelines for hydraulic testing purposes.

The Contractor shall test the pipeline in short sections of pipeline so as to allow timeous backfilling of the trenches. On the completion of a pipeline, a test of the full length will be required as part of the commissioning of pipeline, and as the acceptance test.

The cost of all hydraulic tests is for the Contractor's cost."

#### PSL 7.3.1.7: PIPE SECTION ACCEPTANCE TESTING

"The test pressure varies with the position of the measuring gauge. The measuring gauge should always be positioned at the lowest elevation of the section being tested with the test pressure not exceeding the pipe class at any point along the pipeline."

#### PSL 7.3.1.8: FILLING OF PIPELINES FOR TESTING

"Prior to the commencement of filling, the Contractor shall ensure that all scour valves, air valve isolating valves and in-line isolating valves are in the open position, man all temporarily blanked off ends are firmly anchored against thrust blocks.

The Contractor's proposed methodology for filling shall be submitted to the Engineer for approval. No filling shall commence until the Engineer's approval to do so has been obtained.

The filling process shall be carried out slowly and scour valves are to be continuously monitored to ensure no erosion or damage to property occurs. Scours shall be closed once they begin to discharge water. Blank flanges/end caps shall be installed on the downstream flange after the water in the pipeline has been left to stand for 24 hours. Once the flange has been installed, scour valves are to be re-opened for the duration of the hydraulic test. The Contractor is to ensure that air is vented out of the pipeline as the filling proceeds. It is essential that all air is expelled.

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No separate payment will be made for the Contractor's attendance during filling, the Contractor will be deemed to have included for such in his rates.

No scour valve shall be opened without the prior approval of the Engineer."

#### **PSL 8: MEASUREMENT AND PAYMENT**

Add the following new payment items:

PSL 8.2.16: PIPE MARKERS Unit: No.

"The Contractor shall allow an all-inclusive rate for excavation and installing pipe markers complete as per supplied drawings."

PSL 8.2.17: VALVE MARKERS Unit: No.

"The Contractor shall allow an all-inclusive rate for excavation and installing valve markers complete as per supplied drawings."

PSL 8.2.18: TIE INTO EXISITING PIPELINE/CHAMBERS ALL

INCLUSIVE Unit: Sum

"The rate tendered for this item is to include for the at the existing valve chamber, all fittings, couplings and jointing materials, etc. necessary for the connection from the existing main. Demolishing of the concrete anchor block is also to be included."

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## C3.8 GENERIC LABOUR-INTENSIVE SPECIFICATION

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

#### **C3.8.1 Scope**

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

- a) trenches having a depth of less than 1.5 metres
- b) stormwater drainage
- c) low-volume roads and sidewalks

#### **Precedence**

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

#### C3.8.2 Hand excavateable material

Hand excavateable material is material:

#### a) granular materials:

 (i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

### b) cohesive materials:

(i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

#### Note:

- 1) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

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Table 2: Consistency of materials when profiled

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

## C3.8.3 Trench excavation

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

#### Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- a) to 90% Proctor density;
- b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

## C3.8.4 Excavation

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

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

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## C3.8.5 Clearing and grubbing

Grass and small bushes shall be cleared by hand.

#### C3.8.6 Shaping

All shaping shall be undertaken by hand.

### C3.8.7 Loading

All loading shall be done by hand, regardless of the method of haulage.

#### C3.8.8 Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

#### C3.8.9 Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage

### C3.8.10 Spreading

All material shall be spread by hand.

## C3.8.11 Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved.

### C3.8.12 Grassing

All grassing shall be undertaking by sprigging, sodding, or seeding by hand.

#### C3.8.13 Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m. Grout shall be mixed and placed by hand.

#### C3.8.14 Manufactured Elements

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them.

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## C4 <u>SITE INFORMATION</u>

## C4.1 CONDITIONS ON SITE

The Contractor will not have exclusive use of the site.

The geotechnical reports for the investigations undertaken for the project sites will be emailed to all contractors.