O. R. TAMBO DISTRICT MUNICIPALITY



PROJECT NUMBER: ORTDM SCMU 34-23/24

DESCRIPTION: SIDWADWENI REGIONAL WATER SUPPLY SCHEME – WATER CONSERVATION AND DEMAND MANAGEMENT

MUNICIPAL INFRASTRUCTURE GRANT (MIG)

APRIL 2024

NAME OF TENDERER:		
TENDER AMOUNT:		
CSD SUPPLIER NUMBER:		
CLOSING DATE & TIME:	22 MAY 2024 @12H00	

Prepared for:

The Municipal Manager

O. R. Tambo District Municipality

Private Bag X6043

MTHATHA

5099

Tel. No. (047) 501 6400

Prepared by:

Infrastructure Water and Sanitation

O. R. Tambo District Municipality

Private Bag X6043

MTHATHA

5099

Tel. No. (047) 501 6425

PLEASE CHECK	x / √
That you have read all the pages of the tender 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.	
 That you have attached ALL necessary documentation relating to the composition of the tendering entity, i.e. Company registration documents naming the shareholders and close corporation etc. Joint venture agreement if tendering entity is a joint venture. 	
That the COMPLETE tender document is submitted.	
That the FORM OF OFFER is completed in full and signed.	
That ALL returnable documents are submitted.	
That ALL returnable schedules are completed and signed.	

Ensure that your tender is submitted by 12H00PM on the closing date of the tender.

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT NUMBER: ORTDM SCMU 34-23/24

SIDWADWENI REGIONAL WATER SUPPLY SCHEME – WATER CONSERVATION AND DEMAND MANAGEMENT

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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 a project funded by the Municipal Infrastructure Grant under the O. R. Tambo District Municipality.

Project Number	Name and Description	CIDB Grading
	SIDWADWENI REGIONAL WATER SUPPLY SCHEME - WATER CONSERVATION AND DEMAND MANAGEMENT	7CE or higher
23/24		

A compulsory clarification meeting with representatives of the Employer will take place at 10H00 on **Friday, 26th of April 2024 at the Mhlontlo Local Municipality, Tsolo**, 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 should be downloaded on the e-Tender website (www.etenders.gov.za) alternatively on the O.R. Tambo website (www.ortambo.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 12H00, **22 May 2024.**

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 22 May 2024**. 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.

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 may be.
- Original Valid Tax Clearance Certificate or a Confirmation of Tax Validity with the pin issued by SARS

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 bid at the appropriate spaces provided or next to errors.
- Fill and properly sign the form of offer
- Attach proof of registration with CSD.
- Attach joint Venture Agreement or Consortium Agreement signed and initialled on each page (if applicable).
- Attach consolidated company registration documents, bank account, SARS Tax pin, CSD (for JV or Consortium)
- 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).

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

Bids will be evaluated in three stages, namely:

- Stage 1- Mandatory Requirements
- Stage 2- Minimum conditions of tender
- Stage 3 Price and specific goals

Item	Weight
Stage 2 of Evaluation-Minimum Conditions of Tender	100
Company Experience with respect to similar projects	40
Qualifications and Experience of key staff assigned to the contract	60
Stage 3 of Evaluation- Price & Specific Goals	100
Specific Goals	20
Price	80

Tender offers will be allocated a minimum conditions of tender score out of 100 in terms of the Criteria given. The score will be determined by the Employer, based on interpretation of the comparative quality of the various tender offers, as evidenced by the documentation provided in the tender offer.

The minimum score for the minimum conditions of tender criteria that tender offers must attain in order to be deemed responsive is **70** out of **100**. Tenderers whose tender offer does not achieve this minimum qualification score will be rejected as non-responsive

CONDITIONS OF THE TENDER WITH REGARDS TO SUB-CONTRACTING

IT IS THE CONDITION OF THIS TENDER THAT THE SUCCESSFUL TENDERER MUST SUBCONTRACT A MINIMUM OF 20% 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: nkosiyabon@ortambodm.gov.za.

All Supply Chain Management enquiries may be directed to Mr. S. Hopa, telephone number 047 5016449 or Email: sakhiwoh@ortambodm.gov.za during office hours: Monday to Friday 08H00-13H00 and 13H30-16H30.

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 of contributor as follows:

The specific goals allocated points in terms of this tender	Number of points Allocated on 80/20 system
The promotion of enterprises located in a specific region (O.R Tambo District): The Tenderer and Directors are based in the ORTDM region and pay their municipal rates and taxes	05
Promotion of 51% Black-owned enterprises	05
Promotion of 100% Women-owned enterprises	05
Promotion of Youth-owned enterprises	05

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

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.

Clause	Wording / Data		
C.1.1	General		
C.1.1.1	The E	mployer is:	O. R. Tambo District Municipality Private Bag X6043 Mthatha, 5099
	Telep	hone:	047 501 6425
	Email	:	nkosiyabon@ortambodm.gov.za
C.1.1.2 C.1.2	Tenderers shall declare any perceived, known and potential conflict of interest under Returnable Documents: Declaration of Interest of Persons in Service of State (MBD 4) and Declaration of Tenderers Supply Chain Management Practices.		
O. 11.2	·		and Invitation to Tender. ons of Tender be Documents aments for Tender Evaluation Purposes aments to be Incorporated into the Contract and Contract data and Acceptance arantee (Pro Forma)
	Part (C2: Pricing Data	

Clause	Wording / 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 Annexures (Sp	pecifications)		
	Don't CA: Cita Informa			
	Part C4: Site Informa	ation		
04.0		look of Drawing issued Separately		
C1.3	Interpretation			
		dditional requirements contained in the tender schedules that are included iments are deemed to be part of these conditions of tender.		
C.1.4	Communication:			
		he fact that verbal information, given by the Employer's Agent during site		
		etings or at any other time prior to the award of the Contract, will not be		
		n the Employer. Only information issued formally by the Employer's Agent		
	in writing to tenderers	in writing to tenderers will be regarded as amending the Tender Documents.		
	The Employer's Agent is:			
	Name: Zutari South Africa (Pty) Ltd			
	Address:	1 Pearce Street		
		Berea		
		EAST LONDON		
		5241		
	Contact person:	Gcobani Tshayana		
	Telephone:	043 721 0900		
	Email:	Gcobani.Tshayana@zutari.com		
C.2	Tenderer's obligatio	ns		
C.2.1.1	Only those tenderers who are registered with the Construction Industry Development E			
	(CIDB) (as "Active" at	the time of tender closing) or are capable of being so prior to the evaluation		
	of submissions, in a contractor grading designation equal to or higher than a contractor grading			
	designation determined in accordance with the sum tender for a 7 CE or Higher class of			
	construction work, are eligible to submit a tender offer.			
		ligible to submit a tender offer provided that:		
	a) Every member of tender closing).	of the joint venture is registered (as "Active") with the CIDB (at the time of		
	b) The Lead partner has a contractor grading designation in the CE class of construction work and not lower than one level below the required grading designation in the class construction works under considerations and possess the required recognition status.			

Clause	Wording / Data		
	c) The combined contractor grading designation calculated in accordance with the Construction Industry Development Board Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for 7 CE or Higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.		
	d) Tenders submitted by joint ventures of two or more firms must be accompanied by the document of formation of the joint venture, authenticated by a notary public or other official deputed to witness sworn statements, in which it defines precisely the conditions under which the joint venture will function, its period of duration, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.		
	e) The Tenderer, if a Joint Venture, must submit a signed JV Agreement with the tender specific to the tendered Contract and clearly showing the percentage contribution of each partner to the Joint Venture. The value of work to be undertaken by each partner must be within their CIDB grading limit.		
	Tenderers are eligible to submit a tender offer, provided they have submitted the following tender requirements as listed below:		
	a) Tenderers shall be registered and in good standing with the South African Revenue Services (SARS) and must submit/append documentary evidence/proof in the form of a valid Tax Clearance PIN Number and/or a valid Tax Number issued by SARS. Failure to provide a valid Tax Clearance PIN number and/or Tax Number will result in the tender being rejected.		
	Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance PIN Number and/or Tax Number.		
	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:		
	 Tenderers who are not registered are not precluded from submitting bids but must be registered prior to Contract Award. 		
	 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 https://secure.csd.gov.za/Account/Register .		
	 c) A resolution authorizing a person to sign the bid documents (Full completion and signing of Form 2.2.2 Authority of Signatory 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 tender offer. e) A valid CIDB registration with a minimum grading of 7 CE 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.		

of Section 80 of the Compensation for Occupational Injuries and Diseases (COID) Act (Ac No 130 of 1993). In the case of Joint Ventures, the above shall be provided for each JN Partner. h) Proof of latest municipal rates and taxes statement indicating that rates and taxes are not in arrears for more than 3 months. i) Annual financial statements of the bidding entity as per MBD5. i) 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 prohibiter from doing business with the public sector. k) The Tenderer has not abused the Employer's Supply Chain Management System i) The Tenderer has not failed to perform on any previous contract and has not been given written notice to this effect. m) The tenderer has completed the Compulsory Enterprise Questionnaire and there are not 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. In addition to all the documents requested in Section T2.1 and T2.2 (Returnable Documents) The above documents shall be included in the Supporting Documents file. C.2.3 Amend the Clause to read: "and notify the Employer's Representative of any discrepancy" 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 Schedules. 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) rise the Tender Notice and Invitation to Tender (T1.1) of	Clause	Wording / Data	
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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 Schedules. 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 Tender Notice and Invitation to Tender (T1.1) 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 7 working days before the tender closing time. C.2.9 The employer does not provide insurance. The contractor is responsible for providing furinsurance cover for the contract.	C.2.3	Amend the Clause to read:	
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C.2.9 The employer does not provide insurance. The contractor is responsible for providing fu insurance cover for the contract.		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.	
insurance cover for the contract.	C.2.8	The employer shall respond to clarifications received up to 7 working days before the tender closing time.	
C.2.11 Add the following to the Clause:	C.2.9	The employer does not provide insurance. The contractor is responsible for providing full insurance cover for the contract.	
	C.2.11	Add the following to the Clause:	

Clause	e Wording / Data	
	"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.	
	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:	
	 Tender Document, as proof of specifications tendered on and duly completed and signed. Indexed Lever-Arch file (or files) with all supporting documentation clearly marked with 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 Schedules listed in T2 to the effect that supporting documentation must be attached to the associated Returnable Schedule, 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. Pdf copies of the blank documents have been included in the accompanying DVD/USB for the purposes of distributing among members of the bidding team."	
C.2.13.3	Number of Duplicate Copies required is none.	
C.2.13.4	Add the following to the clause:	

Clause	Wording / Data	
	"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 COMPANY 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 CLOSE CORPORATION submitting a tender, include a copy of a <u>resolution</u> <u>by its members</u> authorising a member or other official of the corporation to sign the documents on each member's behalf.	
	In the case of a PARTNERSHIP 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 JOINT VENTURE/CONSORTIUM 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 authorization 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 NO. ORTDM SCMU 34-23/24 SIDWADWENI REGIONAL WATER SUPPLY SCHEME – WATER CONSERVATION AND DEMAND MANAGEMENT	
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 not be accepted.	
C.2.14	The tenderer is required to provide all the data or information as requested below:	
	 All the documents and schedules as listed under T2.1 & T2.2: Returnable Schedules required for tender evaluation purposes. 	
	 All the documents and schedules as listed under T2.3: Returnable Schedules that will be incorporated in the Contract. 	
	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	

Clause	WanageMen / Wording / Data	
Clause		
	his ability to perform and complete the Works timeously, safely and with satisfactory qualit furnishing details in Part T2 – Returnable Documents.	у, ру
	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 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 22 May 2024 at 12:00p	om
	The employer's address for the delivery of tender offers and identification details to be shon each tender offer package are given below. Only tenders submitted to this tender box wopened and considered. It is the Tenderer's responsibility to make sure it is delivered intender box before closing.	ill be
	Location of Tender Box: O. R. Tambo District Municipality	
	Physical Address: O. R. Tambo District Municipality	
	Myezo Park	
	Nelson Mandela Drive Mthatha	
	5099	
	Identification Details: Place the signed tender offer in a package marked "TENDER FOR CONTRACT NO. ORTDM SCMU 34-23/24 SIDWADWENI REGIONAL WATER SUPPLY SCHEME – WATER CONSERVATION AND DEMAND MANAGEMENT"	
	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 90 weeks .	
	If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall re valid and open for acceptance until the closure of business on the following working day."	main
C.2.16.3	Where a tenderer, at any time after the opening of his tender offer but prior to entering a corbased on his tender offer:	ntract
	 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. 	
	Withdrawal is accepted and tenderers shall sign a letter to acknowledge withdrawal of bid.	
C.2.17	Clarification of Tender Offer after Submission	
	Add the following to the end of Clause C.2.17:	
	"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	on

Clause	Wording / Data	
Olddoo	submission stated in the Emple	yer'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 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	•	ested by the Employer to do so, submit any additional
0.000	<u> </u>	s clause within 5 working days of the date of request.
C.2.22	The tenderer is required to retu closing time for the submission	rn all tender documents with the Tender Offer, prior to the of Tender Offers.
C.3.1.1	Delete the contents of Clause	C.3.1.1 and replace with the following:
		a request for clarification received up to seven working days stated in the Tender Data and notify all tenderers who drew
C.3.2	The Employer shall issue adde	nda until three working days before the tender closing time.
	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 op Time: 12:00pm on 22 May 202	
C.3.4.2	Tenders will be opened immedi	ately after the closing time for tenders at:
	Location: O	. R. Tambo District Municipality
	M N M	. R. Tambo District Municipality lyezo Park elson Mandela Drive Ithatha 099
C.3.5	A two-envelope procedure will	not be followed.
C.3.7	Grounds for rejection and dis	squalification
	Add the following to the end of Clause C.3.7:	
	"Tenderers will be disqualified i	f,
	Register of Tender Defa	reholders of the Tenderer are listed on the National Treasury aulters in terms of the Prevention and Combating of Corrupt a person prohibited from doing business in the public sector.
	,	n in the completed Compulsory Enterprise Questionnaire, the there is a potential conflict of interest which may potentially process.

Clause	Wording / Data	
	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 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. 	
	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)."	
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 on 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 	

Clause	Wording / Data	
	the line item total shall be corrected. Where there is an obviously gr decimal point in the unit rate, the line-item total as quoted, and corrected.	•
	b) Where there is an error in the total of the prices either as a result of of by this checking process or in the tenderer's addition of prices, the be corrected.	
	c) Where the unit rates are imbalanced adjust such rates by increas and selected others while retaining the total of the prices derived af made under a) and b) above.	•
	Where there is an omission of a line item, no correction is possible declared non-responsive.	e, and the offer may be
	Declare as non-responsive and reject any offer from a tenderer who corrections proposed and subject the tenderer to the sanction under C The tenderer is required to submit balanced unit rates for rate only itenschedule. The rates submitted for these items will be considered in the	.2.16.3. ns in the pricing
C.3.11	The Employer reserves the right to contact references and make enqu tenderer's competence, reliability, experience, reputation, and capabilic contract.	
C3.11.1	Evaluation of tender offers	
	Replace the contents of the entire sub-clause with the following:	
The procedure for evaluation of responsive tender offers will be m 294: 2004. Financial offer & Preferences. The bid will be awarded the highest points for price and specific goals combined BUT the preferences. The bid will be awarded the highest points for price and specific goals combined BUT the preference that the procedure of the proce		he bidder who has scored quisite will be to obtain at
	Nevertheless, O. R. Tambo District Municipality retains the right to accept any bid.	
	Evaluation of tender offers will be performed in three stages.	
	Stage D1: Mandatory RequirementsStage D2: Minimum Conditions of Tender	
	Stage D3: Price and Specific Goals	
	Minimum Conditions of Tender will be evaluated as follows:	
	ITEM	WEIGHT
	Minimum Conditions of Tender (see detailed criteria below)	100
	Experience with respect to similar projects	60
	Qualifications and Experience of key personnel	40
	Only tenderers who score a minimum of 70 points or more on Stafurther and therefore eligible for award.	age D1 will be evaluated

Clause	Wording / Data		
	STAG	E D1: Mandatory Requirements	
	of the	ds will be checked to ensure that they comply with the bid rules and all project document. In particular, the following documentation must be ed within the bid.	•
	• Au	ne form of Offer and Acceptance sudited financial statements for any tender price over R10million extified company registration documents and ID of members form C: Compulsory Enterprise Questionnaire	
	• Fo	orm D: Certificate of Authority for Signature orm E: Amendments, Qualifications and Alternatives orm H: Certificate of Good Standing orm I: Relevant company experience	
	• Fo	orm J: Details of key staff and CVs orm M: Preference Points Claim Form in Terms of the Preferential Procur 1922	rement Regulations
	• Ac	information supporting the above forms deenda issued during the bid period, if any. The pricing schedule	
		e to supply the required information will compromise the bid E D2: Quality / Minimum Conditions of Tender	
	The m	aximum score for minimum conditions of tender shall be 100 , distribute	ed as follows:
		Category of Quality / Minimum Conditions of Tender	Maximum tender evaluation points provided
		Experience on similar projects	60
		Experience on similar projects: Proven experience in Water Conserval Management/ Non Revenue water projects which includes activities sudetection, pressure management, replacement and logging of water materials by pressure logging, etc.	ch as leak
		Copies of Certificate of Completion or Practical Completion MUST be sold with the Contract number, Contract Name, Contract Value, Employed Agent and Date of Completion clearly shown.	er and Employer's
		No points will be awarded where Certificates of Completion have not be the Bid. If the value of completed project is not reflected on the certificate contractor's appointment letter or letter from the Employer with values. The Tenderer has successfully completed at least Three (3) projects	
		in the past 10 years, to a total combined value of R12 Million , that satisfies the above criteria and is to provided evidence of successful completion of such projects	60
		The Tenderer has successfully completed at least Two (2) projects in the past 10 years, to a total combined value of R8 Million , that	40

Clause	Wording / Data		
		satisfies the above criteria and is to provided evidence of successful completion of such projects	
		The Tenderer has successfully completed at least One (1) projects in the past 10 years, to a total combined value of R4 Million , that satisfies the above criteria and is to provided evidence of successful completion of such projects	20
		Tenderer failed to provide evidence of experience or has not done any Similar projects	0
	D1.2	Qualifications and Experience of key personnel (NB no key personnel member may be assigned more than one duty on the Contract, i.e. different personnel must be assigned for each of the following key positions): - Contracts Manager = Minimum BTech/ BEng in Civil	40
		 Engineering, Construction Manager = Minimum National Diploma in Civil Engineering, Civil Engineering Foreman = Minimum Grade 12/ N3 Civil Engineering/ building. Construction Health and Safety Officer 	
		Tenderers must submit CV's/Resume and contactable references. Contracts Manager, Construction Manager, Foreman, Construction Health and Safety Officer	
		Contracts Manager Favourable previous experience in Water Conservation Demand Management/ Non Revenue water projects with a minimum of; 10 years in the Civil Engineering field = 15 points, 5 years in the Civil Engineering field = 10 points below 5 years in the Civil Engineering field = 0 points.	15
		Construction Manager Favourable previous experience in the Civil Engineering field with a mimmof; 5 years = 10 points 4 years = 8 points 3 years = 6 points 1-2 years = 4 points Less than 1 = 0 points.	10
		Foreman Favourable previous experience in the Civil Engineering field with a minimum of: 5 years; = 8 points, 3-4 years = 6 points 1-2 years = 4 points. Less than 1 = 0 points.	8
		Construction Health and Safety Officer Favourable previous experience in the Civil Engineering field with a minimum of: 5 years; = 7 points,	7

Clause	Wording / Data	
	3-4 years = 5 points	
	1-2 years = 3 points.	
	Less than 1 = 0 points.	
	Tenderer failed to provide evidence of qualification and experience.	0

STAGE D3: EVALUATION FOR PRICE AND SPECIFIC GOALS (80/20)

PRICE 80
SPECIFIC GOAL POINTS CONTRIBUTION: 20

Points Awarded for Price (Ps)

A total of 80 points will be awarded to the Tenderer with the lowest balanced price. The other tenders will be awarded points on the ratio to bench mark price as follows

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

Where

Ps = Points scored for price of bid under

consideration

Pt = Rand value of bid under consideration Pmin = Rand value of lowest acceptable bid

Points awarded for Specific Goals Contribution

In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a tenderer for attaining the Specific Goal Points contribution in accordance with the table below:

The specific goals allocated points in terms of this tender	Number of points Allocated on 80/20 system
The promotion of enterprises located in a specific region (O. R. Tambo District): The Tenderer and Directors are based in the ORTDM region and pay their municipal rates and taxes	05
Promotion of 51% Black-owned enterprises	05
Promotion of 100% Women-owned enterprises	05
Promotion of Youth-owned enterprises	05

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.

The total calculated points will be rounded to the second decimal place.

- a) Determine if there are any grounds for disqualification
- b) Determine acceptability of preferred tenderer
- c) Prepare a tender evaluation report
- d) Confirm the recommendation contained in the tender evaluation report.

Clause	Wording / Data	
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:	
	a) reasonableness of the financial offer;b) reasonableness of unit rates and prices.	
	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 the Tenderer has submitted all documents required to prove eligibility as listed in Tender Clause 2.1.1.	
C.3.14	Prepare Contract documents 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,	
	c) other revisions agreed between the employer and the successful tenderer, and d) The schedule of deviations attached to the form of offer and acceptance, if any.	
C.3.14	Notice to unsuccessful tenderers: After the successful tenderer has acknowledged the employer's notice of acceptance, after written request, the employer will notify the tenderers that their tender offers have not been accepted on the O. R. Tambo District Municipality's website: www.ortambodm.gov.za , by listing the successful tender.	
C.3.17	The number of paper copies of the signed contract to be provided by the employer is one .	
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 required to subcontract a minimum 20% spend to local EMEs or QSEs from the immediate area of the Site. The details of any EMEs / QSEs need not be submitted with the tender but will be required of the preferred tenderer prior to the signing of the Contract.	

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 with integrity, 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 aware of 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 proceed with 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.
- **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.
- **C.1.3.3** For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially; s
 - 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 employs that 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 the award 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-
- due to changed circumstances, there is no longer a need for the services, works or goods 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 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 submit tender 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 ranked in 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 are to 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 may be 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 as the basis in a prior process to 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 costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer 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 as not 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 employer only 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 familiarize 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 before the 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.

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 as provided 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 contract identified 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 the requirements 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 tender data.
- **C.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (if they 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 authorized 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 "ORIGINAL" and "COPY". Each package 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.2.13.6** 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 the employer'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 the tender 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 the requirements 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 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 is sought, 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 a competitive 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 notarized 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.3 The employer's undertakings

C.3.1 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) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms 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 of the 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 the prequalification process.

C.3.2 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.3.3 Return late tender offers

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

C.3.4 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.3.5 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.3.6 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 the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 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.3.8 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.3.9 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 tender offer 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 an obviously gross misplacement of the decimal point in the unit rate, 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 to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 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.3.11 Evaluation of a tender offer

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders 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	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access 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

C.3.11.1 General

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

C.3.12 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.3.13 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, equipment
 and 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.3.14 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.3.15 Complete adjudicator's contract

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

C.3.16 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 works contract is accepted in writing by the Employer, register and publish the award on the cidb Register of Projects.

C.3.17 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 as soon as possible after completion and signing of the form of offer and acceptance.

C.3.18 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.

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 Returnable 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 Key Personnel				
Form 2.2.9	Schedule of Proposed Sub-Contractors				
Form 2.2.10	Financial References				
Form 2.2.11	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				
Form 2.2.12	Schedule of proposed plant and equipment				
Form 2.2.13	Health and safety plan				
Form 2.2.14	Preliminary programme				
Form 2.2.15	Estimated monthly expenditure				
Form 2.2.16	Declaration regarding fulfilment of the Construction Regulations, 2014				
Form 2.2.17	CIDB Registration				
Form 2.2.18	Letter of Good Standing				

T2.3 Returnable Documents that will be incorporated into the contract					
1	Form 2.3.1	Record of Addenda to Tender Documents			
2	Form 2.3.2	Procurement Form			

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 Key Personnel
Form 2.2.9	Schedule of Proposed Sub-consultants
Form 2.2.10	Financial References
MBIMBIMBIMBIMBI	Municipal Bidding Documents (MBDs) O 1 — Invitation to bid O 4 — Declaration of Interest O 5 — Declaration for Procurement above R10 million O 6.1 — Preference Points Claim Form in Terms of PPPFA O 8 — Declaration of Bidder's Past Supply Chain Management Practices O 9 — Certificate of Independent Bid Determination
Form 2.1.12	Schedule of Proposed Plant and Equipment
Form 2.1.13	Health and Safety Plan
Form 2.1.14	Preliminary Programme
Form 2.1.15	Estimated Monthly Expenditure
Form 2.1.16	Declaration Concerning Fulfilment of The Construction Regulations, 2014
Form 2.1.17	CIDB Registration
Form 2.1.18	COID Letter of Good Standing

FORM 2.2.1 GENERAL INFORMATION OF TENDERER

		e of Tenderer:act details	
Add	dress :	:	
Tel	no :		
Fax	k no :		
Cel	ll no :		
E-n	nail addr	dress:	
3.	Legal e	ll entity: Mark with an X.	
	Ţ	Sole proprietor	
	Ī	Partnership	
	Ī	Close corporation	
	Ī	Company (Pty) Ltd	
	Ī	Joint venture	
		Joint venture member Type of	entity (as defined above)
4.	Income	me tax reference number:	
(in d	case of a	of a joint venture, provide for all joint venture members)	
5.	Munici	icipal services area where the enterprise is registere	ed:
(in d	case of a	of a joint venture, provide for all joint venture members)	
6.	Compa	pany / close corporation Registration Number:	
(in (case of a	of a joint venture, provide for all joint venture members)	
7.	VAT	AT Registration number:	
(in (case of a	of a joint venture, provide for all joint venture members)	
8.	CID	DB registration number:	
(in d	case of a	of a joint venture, provide for all joint venture members)	

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

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	В	C)	E
	Company	Partnership	Joint Venture S	Sole Proprietor	Close
					Corporation
	A. Certificate	for Company			
l,		,	chairperson of th	ne board of	directors of
		, ا	hereby confirm that by	resolution of the	board (copy attached) taker
			acting in the		,
sign	all documents in co	nnection with this te	nder and any contract	resulting from it	on behalf of the company.
Λο.ν	vitness				
AS V	viiness				
1					
			Chairman		
_					
2					
			Date		
	B. Certificate	of Partnership			
We,	the undersigned, be	ing the key partners	in the business trading	ı as	
			_		
here					ting in the capacity
			gn all documents		
Con	ıracı		and ar	ny contract resu	Iting from it on our behalf.
	NAME	ADDRESS	SIGNATURE	DATE	
		1			l l

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.

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

acting in the capacity of lead partner, to sign all documents in connection with the tender offer for

C. Certificate for Joint Venture

Venture shall be appended to this Schedule.

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

Contract and any other contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY		
Lead partner				
		Signature	:	
CIDB registration no		Name	:	
		Designation	:	
CIDD registration no		Signature	:	
CIDB registration no		Name	:	
		Designation	:	
		Signature	:	
CIDB registration no		Name	:	
		Designation	:	
CIDB registration no		Signature	:	
Old legistiation no		Name		
		Designation	·	

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A copy of the Joint Venture Agreement showing clearly the percentage contribution of each partner to the Joint

D.	Certificate for Sole Proprietor		
l,	, he	ereby confirm that I am the so	le owner of the business trading
as			
As Witnes	S:		
1			
		Signature: Sole owner	
2			
		Date	
E.	Certificate for Close Corporatio	n	
We, the u	undersigned, being the key membe	rs in the business trading	
as	h	ereby authorise Mr/Mrs	
	ne capacity of ct and any contract resulting from i		ents in connection with the tender
NAM	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

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

SCHEDULE OF PREVIOUS EXPERIENCE **FORM 2.2.3**

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).

Completion certificates must be submitted for project to be considered for evaluation of Quality / minimum conditions of tender as per Tender Clause C3.11.1.

	Value (R) VAT	Year(s) Referen	Reference	;e		
Description	excluded	work executed	Name	Organisation	Tel no	

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

FORM 2.2.4 SCHEDULE OF CURRENT PROJECTS

Provide the following information on current relevant projects. <u>This information is material to the award of the Contract.</u>

<u>ract.</u>	Value (R) VAT	Date	Reference		
Description	excluded	Appointed	Name	Organisation	Tel no
·				3	

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

FORM 2.2.5 DECLARATION OF GOOD STANDING REGARDING TAX

SOUTH AFRICAN REVENUE SERVICES	Tender No:
DECLARATION OF GOOD STANDING REGARDING TAX	
PARTICULARS	
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	f 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>

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).

- 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.

Tax Compliance Status PIN	
rax compliance states int	

- 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.

	FORM 2.2.6	REGISTRATION ON THE CENTRAL SUPPLIER DATABASE
	proof of registration wi	ith the National Treasury Central Supplier Database. This information is material <u>tt.</u>
ATTAC	CH CERTIFIED PROO	F OF REGISTRATION ON THE NATIONAL CENTRAL SUPPLIER DATABASE

FORM 2.2.7 CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to c	ertify that	(Tendere	r)
		(address)	
	sented by the person(s) named below at the co	ompulsory meeting held for all tenderers at	
	(location)on	(date),
starting at			
matters in		acquaint ourselves with the site of the works and / ender documents in order for us to take account es 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 confir	med by the Employer's representative, namely:	
Name		Signature	
Capacity		Date & Time	

FORM 2.2.8 PROPOSED KEY PERSONNEL

The Tenderer shall list below the key personnel (including first nominee and the second choice alternate), whom he proposes to employ on the project should his Tender be accepted, both at his headquarters and on the Site, to direct and for the execution of the work, together with their CV depicting their experience, positions held, their nationalities and certified qualifications.

The proposed key personnel will be evaluated for minimum conditions of tender based on Clause C3.11.1.

No	Job Description	Name	Qualification	Number of years
				of experience
	Contracts Manager			
	Construction Manager			
	Foreman			
	Plumber			
	All plumbers working on Municipal			
	infrastructure must be registered at the Plumbing Industry Registration Board (PIRB)			
	and shall have and maintain a Technical			
	Operator Practitioner designation "Drainage".			
	Attach CV and proof of registration at PIRB			
	H&S Officer			
	(SACPCMP)			
	Attach CV and proof of registration and			
	qualification			
	Other			
Nam	ne of Tenderer:	Dat	:e:	
		Dai		
Sigr	nature:			
Full	name of signatory:			

FORM 2.2.9 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 a shall take all reasonable and practical r	nat a minimum of 20% 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.			
Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Employer's Agent.				
Name of Tenderer:	Date:			
Signature:				
Full name of signatory:				

FORM 2.2.10 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
Name of Tenderer:	Date:	
Full name of signatory:		

ATTACH AUDITED FINANCIAL STATEMENTS					

FORM 2.2.11 MUNICIPAL BIDDING DOCUMENTS (MBD)

MBD 1 - PART A INVITATION TO BID

BID NUMBER:	PROJECT NUMBER: ORTOM SCMU	CLOSING DATE:	22 MAY 2024	CLOSING TIME:	12h00
	34-23/24				
DESCRIPTION:					
SIDWADWENI REGIONAL WATER SUPPLY SCHEME-WATER CONSERVATION AND DEMAND MANAGEMENT					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT: TENDER BOX, GROUND FLOOR, O. R. TAMBO DISTRICT MUNICIPALITY BUILDING NELSON MANDELA DRIVE MYEZO PARK MTHATHA EASTERN CAPE SUPPLIER INFORMATION NAME OF BIDDER POSTAL ADDRESS STREET ADDRESS TELEPHONE NUMBER CODE NUMBER CELLPHONE NUMBER FACSIMILE NUMBER CODE NUMBER E-MAIL ADDRESS VAT REGISTRATION NUMBER TAX COMPLIANCE STATUS TCS PIN: CSD No: STATEMENT OF RATES AND STATEMENT OFRATES AND TAXES OF THE BIDDER Yes No TAXES OF THE COMPANY Yes STATEMENT OF RATES AND TAXES OF THE BIDDER AND OF THE COMPANY/ LEASE AGREEMENT FOR LEASED PROPERTY MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS [ARE YOU THE ACCREDITED ARE YOU A FOREIGN BASED SUPPLIER FOR REPRESENTATIVE IN SOUTH Yes Nο Yes Nο AFRICA FOR THE GOODS [IF YES ENCLOSE PROOF] THE GOODS [IF YES, ANSWER PART B:3 SERVICES /WORKSOFFERED? SERVICES /WORKS OFFERED? TOTAL NUMBER OF ITEMS OFFERED TOTAL BID PRICE R SIGNATURE OF BIDDER DATE CAPACITY UNDER WHICHTHIS BID IS SIGNED BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO: TECHNICAL INFORMATION MAY BE DIRECTED TO: DEPARTMENT SCM DEPARTMENT CONTACT PERSONMr. N. Noto TELEPHONE CONTACT PERSON Mr. Sakhiwo Hopa 047 501 6425 NUMBER TELEPHONE NUMBER 047 501 6449 N/A **FACSIMILE** NUMBER FACSIMILE NUMBER N/A E-MAIL ADDRESS nkosiyabon@ortambodm.gov.za sakhiwoh@ortambodm.gov.za E-MAIL ADDRESS

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PROJECT NUMBER: **ORTDM SCMU 34-23/24** SIDWADWENI REGIONAL WATER SUPPLY SCHEME – WATER CONSERVATION AND DEMAND MANAGEMENT

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.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

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

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:	

MBD 4 - DECLARATION OF INTEREST

- 1. No bid will be accepted from persons in the service of the state¹.
- 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 Full Name of bidder or his or her representative:	
3.2 Identity Number:	
3.3 Position occupied in the Company (director, trustee, shareholde	er²):
3.4 Company Registration Number:	
3.5 Tax Reference Number:	
3.6 VAT Registration Number:	
3.7 The names of all directors / trustees / shareholders members, state employee numbers must be indicated in paragraph 4 belo	-
3.8 Are you presently in the service of the state?	YES / NO
3.8.1 If yes, furnish particulars	
Regulations: "in the service of the state" means to be – (a) a member of – (i) any municipal council; (ii) any provincial legislature; or (iii) the national Assembly or the national Council of	

- (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 institutionwithin 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.
- ² 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 ar 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

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

Full name	Identity number	State employee number
Signature		Date
O and a site.		Name of Bidden
Capacity		Name of Bidder

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 (TICK WHICH RESPONSE IS APPLICABLE)		
		YES	NO	
1.	Are you by law required to prepare annual finance statements?	cial		
1.1	If yes, submit audited annual financial statement establishment if established during the last 3 years.	-	ree years or since the dateof	
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 uservices towards any municipality for more than 3 which payment is overdue for more than 30 days.	months or othe	•	
2.2	If yes, provide details:			
NO.	QUESTION	ANSWER (TIC APPLICABLE)	K WHICH RESPONSE IS	
		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 noncompliance or dispute concerning the execution of such contract?			
3.1	If yes, provide details:			

NO	QUESTION	ANSWER (TICK WHICH RESPONSE IS		
-		APPLICABL YES	.E) NO	
		I ES	INO	
4.	Will any portion of the goods of services be			
	sourced from outside the Republic, and if			
	so, what portion, and whether any portion of			
	payment from the municipality is expected to			
	be transferred outside of the Republic?			
4.1	If yes, provide details:			
	••••			
CEF	RTIFICATION			
I, TH	HE UNDERSIGNED (NAME)			
	RIFY THAT THE INFORMATION FURNIS RRECT.	HED ON TH	HIS DECLARATIO	N FORM IS
	CCEPT THAT THE STATE MAY ACCLARATIONPROVE TO BE FALSE.	T AGAINST	ME SHOULD	THIS THIS
	Signature		Date	
	Davitan		Name of Divi	
	Position		Name of Bidd	aer

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

- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) The highest acceptable tender will be used to determine the accurate system once tenders are received.

c) The maximum points for this tender are allocated as follows:

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

- 1.3 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.4 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) "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 points is allocated for price on the following basis:

$$Ps = 80 \left(1 - rac{ extit{Pt-Pmin}}{ extit{Pmin}}
ight)$$
 or

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest 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:

The specific goals allocated points in terms of this tender	Number ofpoints allocated (80/20 system)	Number of pointsclaimed by Tenderer (To be completedby the Tenderer)
The promotion of enterprises located in a specific region (O. R. Tambo District): The Tenderer and Directors are based in the ORTDM region and pay their municipal rates and taxes	05	
Promotion of 51% Black-owned enterprises	05	
Promotion of 100% Women-owned enterprises	05	
Promotion of Youth-owned enterprises	05	

The following documents shall be submitted to prove compliance with the above Specific Goals where claimed:

- Copy of business registration documents, as issued by CIPC.
- Certified copy of identity documents of directors/ shareholders/ partners / members, as the case may be.
- Original Valid Tax Clearance Certificate or a Confirmation of Tax Validity with the pin issued by SARS.
- Proof of latest municipal rates and taxes statement **of the bidder** indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal rates and taxes statement of each **company director** indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal water and sanitation charges statement **of the bidder** 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.
- Proof of latest municipal water and sanitation charges statement of 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.
- Confirmation of address from a ward councillor where the bidder and company directors operate and reside in a periurban area where no rates and taxes and service charges are not billed.
- A copy of a valid lease agreement where the bidder does not own the property they are operating from.

5.	DECLA	ECLARATION WITH REGARD TO COMPANY/FIRM				
5.1.	Nan	Name of company/firm				
5.2.	Con	Company registration number:				
5.3.	PE 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				
	[Tic	K APPLICABLE BOX]				

- 5.4. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
 - i) The information furnished is true and correct;
 - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
 - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs

- 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

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

The following documents shall be submitted to prove compliance with the above Specific Goals where claimed:

- Copy of business registration documents, as issued by CIPC.
- Certified copy of identity documents of directors/ shareholders/ partners / members, as the case may be.
- Original Valid Tax Clearance Certificate or a Confirmation of Tax Validity with the pin issued by SARS.
- Proof of latest municipal rates and taxes statement of the bidder indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal rates and taxes statement of each company director indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal water and sanitation charges statement of the bidder 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.
- Proof of latest municipal water and sanitation charges statement of 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.
- 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.
- A copy of a valid lease agreement where the bidder does not own the property they are operating from.

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

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. willfully 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 National Treasury's		
	website (<u>www.treasury.gov.za</u>) and can be accessed by clicking on its link at the bottom of the home page.		
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12of 2004)?	Yes	No
	The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.		
4.2.1	If so, furnish particulars:	1	1
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	Yes	No
	five years?		
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 charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?		
4.4.1	If so, furnish particulars:		
4.5		Yes	No
	other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?		
4.7.1	If so, furnish particulars:		
I, THE I CERTIF	FICATION UNDERSIGNED (FULL NAME) FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CO EPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAK D.D.D.D.D.D.D.D.D.D.D.D.D.D.D.D.D.D.D		
	Signature Date		
	Position Name of Bidder		

MBD 9 - CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ 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).² 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:
- ¹ Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

PROJECT NO.: ORTDM SCMU 34-23/24

SIDWADWENI REGIONAL WATER SUPPLY SCHEME 5 - WATER CONSERVATION AND DEMAND MANAGEMENT

in response to the invitation for the bid made by:

O. R. TAMBO DISTRICT MUNICIPALITY

do hereby make the following statements that	certify to be true and complete in every respect:
I certify, on behalf of:	that:(Name of Bidder)

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line 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 consortium³ will not be construed as collusive bidding.
- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill, and knowledge in an activity for the execution of a contract.

any restrictive practices related to bids and contract reported to the Competition Commission for investigadministrative penalties in terms of section 59 of the may be reported to the National Prosecuting Authorized from conducting business with the ten (10) years in terms of the Prevention and Combe 2004 or any other applicable legislation.	cts, bids that are suspicious will be igation and possible imposition of the Competition Act No 89 of 1998 and or prity (NPA) for criminal investigation and or the public sector for a period not exceeding
Signature	Date

Name of Bidder

Position

FORM 2.1.12 SCHEDULE OF PROPOSED PLANT AND EQUIPMENT

Quantity	
	Description, Size, Capacity, etc
Attach additional pages i	if more space is required.
	major equipment that will be hired or acquired for this contract if my/our ten
acceptable	
Quantity	Description, Size, Capacity, etc
	if more space is required.
Attach additional pages i	

Position

Name

FORM 2.1.13 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 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) Health and safety precautions and Procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- 4) Regular monitoring Procedures to be performed.
- 5) Regular liaison, consultation and review meetings with all parties.
- 6) Site security, welfare facilities and first aid.
- 7) 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.

(If nil, enter NIL)

Date

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 Schedu

Number of sheets appended by the Tenderer to this Schedule

SIGNED BY/ON BEHALF OF TENDERER:

Signed

Name	 Position

FORM 2.1.14 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.

FORM 2.1.15 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.

	Amount (VAT Included)					
Payment	Α	В		A - B	Judedy	
Certificate No.	Payments	Expenditure		Net cash flow		Cumulative cash flow
	Received					
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						
etc						
Maximum negative cash flow: take the largest negative number in the last column and write it here						
	>>>>>	>>>>>>	>>>	>>>>>>>	>	

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

FORM 2.1.16 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.

Tenderers :	shall	answer	the	auestions	belo	ow:

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

(Tick)	
YES	
NO	

Indicate which approach shall be employed to achieve compliance with the Regulations.
 (Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract 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 wi	II be undergone:	
5.	List potential key risks identified and measures for	addressing risks:	
6.	I have fully included in my tendered rates and pric Quantities) for all resources, actions, training ar Regulations for the duration of the construction an	res (in the appropriate payment items provided in the Bill and any other costs required for the due fulfilment of the defects repair period	of he
	(Tick)		
	YES		
SICA	NATURE OF PERSON(S) AUTHORISED TO SIG	N TUIC TENNED.	
SIGN	NATURE OF PERSON(S) AUTHORISED TO SIG	N INIS IENDER.	
1.		ID NO:	
(Nan	ne in Print):		
2.		ID NO:	
(Nan	ne in Print):		

FORM 2.1.17 CIDB REGISTRATION

FORM 2.1.17 CIDS REGISTRATION	
Proof of Contractor's (active) registration on the Construction Industry Development Board (CIDB)	

FORM 2.1.18 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).

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 2.3.1 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		
		Date:
ame of	f signatory:	

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.

With regard to the above, certain actions or errors are unacceptable, and warrants **REJECTION OF THETENDER**, 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 noncompliance of Tenderrequirements 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.

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 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

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. TamboDistrict Municipality for a period of 5 years.

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			

C1 AGREEMENT AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Performance Guarantee
- C1.4 Adjudication
- C1.5 Occupational Health and Safety Agreement

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:

PROJECT NUMBER: ORTDM SCMU 34-23/24: SIDWADWENI REGIONAL WATER SUPPLY SCHEME - WATER CONSERVATION AND DEMAND MANAGEMENT

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

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

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:			
Rand (in words); R		(in figures).	
This Offer may be accepted by the Acceptance and returning one copy of stated in the Tender Data, whereupo Conditions of Contract identified in the	f this document to the Tenderer befor on the Tenderer becomes the party	e the end of the period of validity	
Signature(s)	Date		
Name(s)			
Capacity			
For the Tenderer			
	(Na	ame and address of organization)	
Name & Signature of Witness			
Signature	-		
Name	Date		

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

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

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

The tenderer shall, within 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 Employer		
	(Name and address of organization)	1
Name & Signature		
Of Witness		
Name and Signature	Date	

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

1.	Subject
	Details
2.	Subject
	Details
3.	Subject
	Details
4.	Subject
	Details
5.	Subject
	Details
6.	Subject
	Dotaile

By the duly authorized 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)	<u> </u>
Capacity	
	(Name and address of Organisation)
Name & Signature	
Of Witness	Date
FOR THE EMPLOYER:	
Signatures (s)	
Name(s)	
Canacity	
Capacity	
	(Name and address of Organisation)
Name & Signature	
Of Witness	Date

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) today:

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

C1.2 CONTRACT DATA (PART 1)

The General Conditions of Contract for Construction Works, third edition, 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 - 8055947

	PAI	RT 1: DATA PROVIDED BY THE EMPLOYER			
The follow	ing amendments and	additions to the Clauses are the contract specific data applicable to this Contract:			
Clause	Description / Wording				
	The conditions of contract are:				
	The General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015)				
1	General				
1.1.1.13	There will be no De	efects Liability Period			
1.1.1.14	Refer Clause 5.5.1				
1.1.1.15	The Employer is:				
		ct Municipality, represented by the DIRECTOR: INFRASTRUCTURE AND			
		d/or such other person or persons duly authorised thereto by the Employer in			
1.1.1.16	writing. The Employer's Ad	ent is Zutari South Africa (Pty) Ltd represented by an employee duly authorised			
1.1.1.10	thereto in writing.	ent is Zutan Gouth Amoa (1 ty) Eta represented by an employee duly authorised			
1.1.1.26	The Pricing Strategy is:				
	A re-measurement				
1.2.1.2		dress for receipt of communications is:			
	Address (Postal):	O. R. Tambo District Municipality			
		Private Bag X6043			
		Mthatha,			
	5099				
	Address (Physical)	O. R. Tambo District Municipality			
		Nelson Mandela Drive			
		Myezo Park			
	T.1 1	Mthatha			
	Telephone:	047 501 6400			
1010	Email:	ortambodm@ortambodm.gov.za			
1.2.1.2	Telephone:	ent's address for receipt of communications is: 043 721 0900			
	Email:	Gcobani.tshayana@zutari.com			
	Address (Postal):	P.O BOX 19553			
	7 (a a 1 o o o (1 o o (a)).	Tecoma			
		5214			
	Address (Physical)	: No.1 Pearce Street			
		Berea			
		East London			
		5241			

3	Employer's Agent				
3.2.3	The Employer's Agent shall first consult and obtain specific approval from the Employer before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:				
	5.12 - Granting of extension of time for Practical Completion excluding Clause 5.12.2.2 (Abnormal climatic conditions) 6.3 – Variation Orders				
3.2.4	Imialu Environmental and Safety Services has been appointed as the Employer's Health and Safety Agent on this contract, in terms of Clause 5 of the Construction Regulations, 2014 as promulgated in terms of Section 43 of the Occupational Health and Safety Act, 1993.				
	The Principal Contractor shall compile his OHS plan in line with OHS specification and submit for approval prior to any works commencing. The duly appointed H&S Officials will be responsible for further monitoring and the auditing of the approved H&S plan for legal compliance.				
4	Contractor's General Obligations				
4.12.2	Add the following to the end of Sub-Clause 4.12.2 :				
	"The Employer's minimum requirements for approval of the Contractor's staff is as follows:				
	a) Must be in the employment of the Contractor;				
	b) Contracts Manager = Minimum BTech/ BEng in Civil Engineering,				
	c) Construction Manager = Minimum National Diploma in Civil Engineering,				
	d) Civil Engineering Foreman = Minimum Grade 12/ N3 Civil Engineering/ building.				
	e) Construction Health and Safety Officer				
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.				
	Compliance with the National Environmental Management Act (NEMA), Act 107 of 1998 is compulsory. Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers."				
	"The 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: "4.3.3 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.
- (iv) 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.
- 4.3.4 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 5(1)(b) of the Construction Regulation 2014 and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 7(1)(b) of the Construction Regulation 2014 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 seven (7) days after the Commencement Date 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."

5 Time and Related Matters

- 5.3.1 The documentation required before commencement with Works execution are:
 - Health and Safety Plan (Refer to Clause 4.3)
 - Initial programme (Refer to Clause 5.6) including Cash flow forecast.
 - Security (Refer to Clause 6.2)
 - Insurance (Refer to Clause 8.6). Submit copies of receipts of registration, or payment for the premiums for the following insurances, as required in the Contact Data.
 - Quality Management Plan
 - Cashflow projection
 - OHS Agreement form
 - Environmental method statement
 - Letter of Good Standing from the Compensation Commissioner.
 - The documentation required from the Provisional Director (Department of Labour) required before commencement of works are:

 Construction Work Permit and site-specific number for each construction site in terms of
 - Construction Work Permit and site-specific number for each construction site in terms of Regulation 3(3) of the Construction Regulations, 2014.

5.3.2	 In terms of Regulation 3(1) of the 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. Commence of the works is estimated to be sixty (58) days after the commencement of the Contract The Contractor shall submit the documentation required under subclause 5.3.1 including that required
	for the application of 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 Clause 5.3.3 after the last sentence: "The Contractor shall not commence working until they have 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."
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,"
5.4.2	The access and possession of Site shall not be exclusive to the Contractor. 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 own cost any additional facilities outside the Site required by him for the purposes of the Works.
5.5.1	The stipulated maximum time limit for Practical Completion is 606 days, 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) 28 days to comply with Clause 5.3.1 b) 30 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 Construction Health and Safety Agent. c) 548 days of construction period.
5.8.1	Delete the words "between sunset and sunrise" in the first line and replace with "outside normal working hours". Normal working hours shall be those as stated in the applicable Sectoral Determination applicable to a 6 (six) day week (Monday to Saturday) from 07:00 to 17:00. Non-working days are Sundays. Special non-working days are all applicable gazetted public holidays, election day of the local government elections and national elections (when applicable) and the year-end break. For the purposes of this Contract the year-end break shall be as declared by Bargaining Council for the Civil Engineering Industry (BCCEI). Add the following to Clause 5.12.2.2:
0.12.2.2	No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working dates listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of clause 5.12 The number of days quoted Contract Data Clause 5.12.2.2 shall be regarded as fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work. Claims for delays for abnormal climatic conditions shall be

accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day is experienced. It shall be noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be considered. The time period specified as the time for completion includes allowances for delays and days on which it is expected that work, on the critical path items of the Works, would be prevented due to normal weather conditions such as wind, rainfall, or the subsequent waterlogged condition. Based on average weather conditions of wind, rain, and sunshine the allowances for actual and consequential delays shall be as follows: 3 working days per month for the months of January to March 1 working day per month for the months of April to September 2 working days for the month of October 3 working days per month for the months of November to December If the Contractor has been prevented by these weather conditions from working on the critical path items of the works, then he must notify the Employer's Agent in writing. The submission shall be made within five days of the resumption of work. The Employer's Agent shall upon considering all the relevant factors determine the extension of time to be granted on the basis that an extension of time to the Contract will only be granted if the total number of days upon which work on the critical items was prevented, exceeds the total number of days calculated in terms of the above allowance and considering the official contract period as a whole. The time periods of the appropriate time-related items shall be increased to take account of the extensions of time granted. 5.12.5 Add the following to Clause 5.12 5.12.5 Critical Path Provision A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the 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 six normal working days, will be taken in account for the extension of time. 5.13.1 The penalty for failing to complete the Works is R5 000 per day, based on the approved programme and work packages to be agreed. Penalties may also be applicable to portions of work packages and their agreed completion dates as per the accepted programme. 5.14.1 The requirements for Practical Completion are that the Works reach a state of readiness, fit for the intended purpose and occupation without danger or undue inconvenience to the Employer as set out in the Scope of Work Replace "the Employer's Agent" in the second line with 5.14.2 the following: ", the Contractor shall notify the Employer's Agent, who shall inspect the works. Provided the Employer's Agent finds that the work has been completed satisfactorily, failing which he shall issue an updated list" 5.14.5.5 Delete the contents of Clause 5.14.5.5 and replace with: "Insurance of the Works shall continue until the expiration of the Defects Liability Period, in terms of the amended Clause 8.6 contained in this Contract Data".

6	Payment and related matters				
6.2.1	Replace the wording "as selected" in Clause 6.2.1 with "as stated". The security to be provided by the Contractor shall be: •a Performance Guarantee of ten per cent (10%) of the Contract Sum. The Performance Guarantee shall be from an approved Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Performance Guarantee. The wording of the Performance Guarantee shall be identical to the pro-forma provided. The time to deliver the Performance Guarantee is within fourteen (14) days after the Commencement Date.				
Replace the entire contents of Clause 6.2.2 with the following: "If the Contractor fails in his obligations to provide the stated security within the period 5.3.2, or if the Performance Guarantee shall differ from the pro-forma provided ur Performance Guarantee of the Contract Data, the Employer may terminate the Con Clause 9.2."					
6.2.3	Replace the entire contents of Clause 6.2.3 with the following: "The Contractor shall ensure that the Performance Guarantee remains valid and enforceable until the issue of the Certificate of Completion."				
6.8.2	Add the following to the end of Sub-Clause 6.8.2 :				
	"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]				
	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:				
	 "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. "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. "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. "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. 				
6.8.3	Price adjustments for variations in the costs of special materials are not allowed.				
6.10.1.5	The advance payment percentage limit for plant and materials delivered to Site but not yet built into the Permanent Works is: 80% of the value of the materials .				
6.10.1.5	The advance payment percentage limit for plant and materials not yet supplied to Site is: Not applicable for this contract				
6.10.3	"Payment of the amounts referred to in Clauses 6.10 shall be subject to a retention by the Employer of an amount (called "the retention money"), being the percentage retention stated in the Contract Data, of the said amounts due to the Contractor, until the retention money reaches the "Limit of retention money" stated in the Contract Data.				

	MANAGEMENT					
	The percentage retention shall be ten percent (10%) of payments due up to the "Limit of retention"					
	money" which shall be five per cent (5%) of the Contract Price, excluding Value Added Tax.					
6.10.4	Replace the wordings "within 7 days" and "within 28 days" in Clause 6.10.4 with the wording "within 5					
0.10.4	working days: and "within 30 days".					
7	Quality and related matters					
7.8	There will be no Defects Liability Period					
	Risks and related matters					
8						
8.6	Proof of insurance is to be submitted to the Employer's Agent within 14 days after the Commencement					
0.0440	date.					
8.6.1.1.3	The amount to cover professional fees for repairing damages and loss to be included in the insurance					
0.04.0	sum is 10% (ten percent) of the Contract Price.					
8.6.1.3	The limit of indemnity shall be R 10 000 000,00.					
	Add to Clause 8.6.1.3:					
	"The minimum amount of insurance required in terms of this Clause shall be per event, the number of					
	events being unlimited."					
8.6.1.5	Amend Clause 8.6.1.5 to read:					
	"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	Add to Clause 8.6.5:					
0.0.0	"The Employer shall approve (or disapprove) the terms of the insurances within seven (7) days from the					
	date of receipt of the policies provided in terms of Clause 8.6.5."					
8.6.6	Add to Clause 8.6.6:					
0.0.0	"The policies and the proof of payment of premiums and continuity of the policies shall be produced					
	within fourteen (14) days from the commencement of the Contract."					
8.6.8	Add Clause 8.6.8:					
0.0.0	"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."					
8.6.9	Add Clause 8.6.9:					
0.0.0	"With regard to the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993),					
	where applicable, the Contractor shall before commencement of the Works deliver to the Employer a					
	letter, either:					
	(a) from his insurance company certifying that the Contractor has effected 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."					
9	Termination of Contract					
9.1.4	Replace the contents of Clause 9.1.4 with the following:					
J. 1. T	"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:					
	1 × m·					
	a) will be entitled to an extension of time for working days lost as may be approved by the Employer's Agent, and					
	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.
10	Claims and disputes
10.3.2	Dispute resolution shall be by amicable settlement.
10.5.1	Dispute resolution shall be by ad-hoc adjudication.
10.5.3	The Adjudication Board shall consist of one (1) member
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be by arbitration.
12	Add the following additional clause:
	Details to be confidential.
	The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Employer's Agent.
13	Add the following additional clause:
	"A minimum of 20% of the value of the Contract shall be subcontracted to local EE's as stated in Part
	C3: Scope of Works, Section C3.3: Procurement. "
	It shall remain the Contractor's responsibility to ensure that the target percentage is attained.
	No additional mark-up or costs will be payable to the contractor for work described above.

C1.2: CONTRACT DATA (PART 2)

Notes to Tenderer:

- 1. The Tenderer is required to complete this data in full.
- 2. Please read both the General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015) and the relevant parts of its Guidance Notes to understand the implications of this Data which the tenderer is required to complete.
- 3. The number of the clause which requires the data is shown in the left-hand column for each statement; however, other clauses may also use the same data.

PART 2: DATA PROVIDED BY THE CONTRACTOR

CL ALICE	CTATEMENT	DATA
CLAUSE	STATEMENT	DATA
	The conditions of contract are	The General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015)
1	General	
1.1.1.9	The Contractor is: (The legal name of the contractor)	
1.2.1.2	The Contractor's address is:	
	Physical Address:	
	Postal Address:	
	Telephone:	
	Email Address:	
4		Contractor's General Obligations
4.4.2	The Contractor must Sub- Contract any parts of the Contract.	To which this Contract relates shall be the <i>minimum of 20% of the Contract Sum excluding CPA and contingencies</i> that must be Sub-Contracted to a Local SMME or the Designated Groups as agreed during the Procurement of the Sub-Contractors.
4.10.2	Contractor shall provide monthly reports outlining compliance with	Site progress and Employer's CPG and EPWP objectives at intervals specified in Part C3: Employer's Works Information of this document.
4.11.1	Contractor's Competent Employees are:	
	Title	Construction / Contract Manager
	Name	

	Qualifications			
	Tel No			
	Email			
	77'4			
	Title	Construction Manager		
	Name			
	Qualifications			
	Tel No			
	Email			
	Title	Foreman		
	Name			
	Qualifications			
	Tel No			
	Email			
	Title	Safety Officer		
	Name			
	Qualifications			
	Tel No			
	Email			
	SACPMP			
	Registration			
01 1141	Number			
Should the Contractor decide to use other Personnel rather than the one's listed above, must do it in writing, and the proposed Personnel must have the same or very similar Qualifications and experience				
6	Payment and relat	ed matters		
6.5.1.2.3	The percentage allowance to cover overhead charges is 10%.			

C1.3 PERFORMANCE GUARANTEE (PRO FORMA)

PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition, 2015.

GUARANTOR DETAILS A	ND DEFINITIONS
"Guarantor" means:	
Physical address:	
"Employer" means:	O. R. TAMBO DISTRICT MUNICIPALITY
"Contractor" means:	
"Employer's Agent" means:	Zutari (Pty) Ltd
"Works" means:	SIDWADWENI REGIONAL WATER SUPPLY SCHEME - WATER CONSERVATION AND DEMAND MANAGEMENT
"Site" means:	The Site as defined by clause 1.1.1.29 of the General Conditions of Contract, 2015.
"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 Guara	ntee: FIXED
"Expiry Date" means:	Within 14 days after the issue of the Certificate of Completion by the Employer's Agent in terms of Clause 5.14.4 of the General Conditions of Contract
CONTRACT DETAILS	
Employer's Agent issues:	Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

2. PERFORMANCE GUARANTEE

- 2.1 The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
- 2.2 The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, 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.

2.3 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. CONDITIONS APPLICABLE TO FIXED PERFORMANCE GUARANTEES

- 3.1 The Guarantor hereby acknowledges that:
 - 3.1.1 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
 - 3.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money.
- 3.2 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:
- 3.2.1 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 3.2.2:
- 3.2.2 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 3.2.1 and the sum certified has still not been paid;
- 3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified 3.2.
- 3.3 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, 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:
- 3.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
- 3.3.2 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 3.3; and
- 3.3.3 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.
- 3.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.
- 3.5 Where the Guarantor has made payment in terms of 3.3, 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 3.2 or 3.3 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 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 3.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider 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.
- 3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, 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.
- 3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 3.12 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:

GUARANTOR (1)	SIGNATURE
DATE	CAPACITY
GUARANTOR (2)	SIGNATURE

ı	DATE	i	CAPACITY	
	WITNESS (1)	ı	SIGNATURE	
	WITNESS (2)		SIGNATURE	

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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.

C1.5 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'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 GCC.

- 4 The Mandatary declares himself to be conversant with the following:
 - (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 theirrespective 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	hereon	in :	the	presence	of t	he	subscrib	ing
witnesses:																

Signature(s) of authorized agents: _		
N		
Name(s) (in block letters):		

Capacity of	authorized agents:
for and on b	ehalf of the Mandatary:
	(Name and address of organization)
Witness:	(Full name – in block letters – and signature)
	(Name)
	(Signature)
Data	
Date:	·
For and on	behalf of the Employer:
Signature(s)	of authorized agent(s):Date:
Name(s) (in	block letters):
Capacity of	authorized agents:
for the Empl	loyer:
	(Name and address of organization)
Witness:	(Full name – in block letters – and signature)
	(Name)
	(Signature)
	(Oignature)
Date:	

C2 PRICING DATA

- C2.1 Pricing Instructions
- C2.2 Bill of Quantities

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 SABS 1200 Standardized 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 Standardized 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 Standardized 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 Quantities¹. Should any requirement of the measurement and payment clause of the appropriate Standardized 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 Standardized 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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¹ The standard system of measurement of civil engineering quantities published by the South African Institution of Civil Engineers.

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 Standardized 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

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
m².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
l	=	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.

C2.2 BILL OF QUANTITIES

	PAYMENT REFERS	NARY & GENERAL DESCRIPTION	UNIT	TENDER QUANTITY	TEN	IDER RATE	ı	TENDER AMOUNT
1	SANS 1200 A	SECTION 1 : PRELIMINARY & GENERAL						
1.1		FIXED CHARGED ITEMS						
1.1.1	8.3.1 PSA 8.3.1	Contractual requirements (including Performance Guarantee and insurances etc.)	Sum	1				
	8.3.2 8.3.2.3	Establishment of Facilities on the Site:						
1.1.2	8.3.2.1 PSA 8.3.2.1 PSAB 3.1	Facilities for the Employers Agent including name boards, 1 office facility, 1 boardroom, covered parking bays protective clothing, data and internet connection, medical facilities and survey equipment (Sharing printing facilities with contractor).	Sum	1				
1.1.3	8.3.2.2 PSA 8.3.2.2	Facilities for the Contractor including name boards, offices and storage sheds, workshops, laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power, communications, printing equipment, dealing with water, access and plant.	Sum	1				
1.2		TIME RELATED ITEMS						
1.2.1	8.4.1 PSA 8.4.1	Contractual requirements (including Performance Guarantee and insurances)	Sum	1				
1.2.2	8.4.2.1 PSA 8.4.2.1	Facilities for Employers agent	Sum	1				
1.2.3	8.4.2.2 PSA 8.4.2.2	Facilities for Contractor	Sum	1				
1.2.4	8.4.3	Supervision	Sum	1				
1.2.5	8.4.4	Company and Head Office overhead costs	Sum	1				
1.2.6	PSA 8.5	Accommodation for Employers Agent's staff	ProvSum	1	R	144,000.00	R	144,000.00
	PSA 8.4.6	Other time related obligations: Compensation for delays incurred (incl Weekends and public holidays)						
1.2.7		(a) Plant	Sum/day	15				
1.2.8		(b) Labour	Sum/day	15				
1.2.9		(c) Supervision	Sum/day	15				
1.2.10		(d) Other services, facilities etc. not covered by the above (a), (b) and (c)	Sum/day	15				

ITEM NO	PAYMENT REFERS	INARY & GENERAL DESCRIPTION	UNIT	TENDER QUANTITY	TEN	NDER RATE		TENDER AMOUNT
ection 1	1 : Preliminary	and General - Brought Forward						
	8.5	Sums stated provisionally by the Engineer						
1.2.11	PSA 8.5.3	Community Liaison Office (CLO)	Prov Sum	1	R	180,000.00	R	180,000.0
1.2.12	PSA 8.5.3	Overheads, charges and profit on item above	%	180,000.00				
1.3	8.7 PSA 8.7	DAYWORKS Labour						
1.3.1		Skilled	h	50				
1.3.2		Semi-skilled	h	50				
1.3.3		Unskilled	h	50				
1.3.4		Field Technician	h	50				
1.3.5		Plumber (Qualified Artisan)	h	50				
1.3.6		Artisan/ Plumber Assistant	h	50				
		Vehicles, Plant and Equipment						
1.3.7		LDV	h	50				
1.3.8		TLB	h	50				
1.4	8.8 PSA 8.8	TEMPORARY WORKS						
1.4.1	8.8.2	Dealing with traffic	Sum	1.0				
1.4.2	8.8.6 PSA 8.8.6	Dealing with water	Sum	1.0				
1.4.3	8.8.4 PSA 8.8.4	Existing services (c) Excavate by hand in soft material to expose existing services	m³	10.0				

NO	PAYMENT REFERS	NARY & GENERAL DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE		TENDER AMOUNT
ection 1	1 : Preliminary	and General - Brought Forward					
1.5		PROVISIONS FOR HEALTH & SAFETY					
1.5.1	PSA 8.8.7 (a)	The sum shall cover all preparation of risk assessments, safe work procedures, the project H&S File, the H&S Plan, including hazards and potential hazard identification, Standard Working Procedures, and Method Statements and all other costs necessary in complying generally with the Occupational Health and Safety Act 85 of 1993, (as amended), the Construction Regulations 2014	Sum	1.0			
1.5.2	PSA 8.8.7(b)	Provision for ensuring SMME Contractor(s) Safety File is detailed, up-to-date and approved compliance to statutory requirements, including issuing of PPE and medicals per SMME Employee etc	Sum	1.0			
1.5.3	8.8.7 PSA 8.8.7	Provision of competent Health and Safety Officer on site.	month	18.0			
1.6		PROVISIONS FOR COMPLIANCE TO THE SPECIFICATION EMA: ENVIRONMENTAL MANAGEMENT (BASIC)					
1.6.1	PSA 8.9	The sum shall cover the cost of all activities necessary to comply with the Specification EMA: Environmental Management (Basic), which have not been included in the tendered rates for the scheduled items allowed elsewhere in the bill of quantities	Sum	1.0			
1.7		SMME MANAGER					
1.7.1	PSA 8.10	Contractor to provide managers for dealing with SMME's for duration of contract.	Sum	1.0			
1.8		SECURITY FOR EMPLOYERS AGENT					
1.8.1	PSA 8.11	Armed Security on an ad-hoc basis where required or area is deemed a security risk	Prov Sum	1.0	R 500,000.00	R	500,000.0

CONTRA		T MUNICIPALITY - WCDM INITIATIVES				
ITEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
2	SANS 1200L	SECTION 2: LEAK DETECTION AND DETECTION OF SERVICES				
2.1	PSL 8.2.18	LEAK DETECTION				
	PSL 8.2.18 (a)	Leak detection service: Level 1 Visual inspection (includes inspecting the individual existing pipe lines, as per layout drawings, recording and quantifying the results)				
2.1.1		a) Sidwadweni East (Bulk reticulation)	km	104.02		
2.1.2		b) Sidwadweni West (Bulk reticulation)	km	84.02		
2.1.3		c) Tsolo town (Reticulation)	km	11.70		
2.1.4		d) Villages (Reticulation)	km	265.00		
	PSL 8.2.18 (b)	Leak detection service: Level 2 Sounding (includes acoustic inspection of the individual existing pipe lines with subsurface leak detection equipment, as per visual inspection and directed by Employers Adent. recording and quantifying of leaks)				
2.1.5		a) Sidwadweni East (Bulk reticulation)	km	10.40		
2.1.6		b) Sidwadweni West (Bulk reticulation)	km	8.40		
2.1.7		c) Tsolo town (Reticulation)	km	1.17		
2.1.8	-	d) Villages (Reticulation)	km	26.50		
	PSL 8.2.18 (c)	Leak detection service: Level 3 Correlation (includes inspection of the individual existing pipe lines using correlation equipment, as per visual inspection and directed by Employers Agent, recording and quantifying of leaks)				
2.1.9		a) Sidwadweni East (Bulk reticulation)	km	2.60		
2.1.10		b) Sidwadweni West (Bulk reticulation)	km	2.10		
2.1.11		c) Tsolo town (Reticulation)	km	0.29		
2.1.12	,	d) Villages (Reticulation)	km	6.63		
SECTIO	N 2 : TOTAL	CARRIED FORWARD TO THE SUMMARY		1		R

TEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
3	SANS 1200L	SECTION 3: FLOW AND PRESSURE LOGGING				
3.1	PSL 8.2.19	FLOW LOGGING				
	PSL 8.2.19 (a)	Supply, Install and maintain flow logging of bulk flowmeters up to 300mmø (For entire duration of project)				
3.1.1		a) Sidwadweni East	No.	3.0		
3.1.2		b) Sidwadweni West	No.	3.0		
3.1.3		c) Tsolo	No.	1.0		
	PSL 8.2.19 (b)	Supply, Install and maintain of bulk flow meter logging (clamp on type) Provisional				
3.1.4		a) Sidwadweni East	No.	2.0		
3.1.5		b) Sidwadweni West	No.	2.0		
3.2	PSL 8.2.19	PRESSURE LOGGING				
	PSL 8.2.19 (c)	Supply, Install and maintain of 24hr Pressure logging at strategic points				
3.2.1		a) WTW's	No.	2.0		
3.2.2		b) Pumpstations	No.	1.0		
	PSL 8.2.19 (c)	Supply, Install and maintain of 7day Pressure logging at strategic points				
3.2.3		a) WTW's	No.	2.0		
3.2.4		b) Pumpstations	No.	1.0		
3.4	PSL 8.2.19	DATA LOGGING EQUIPMENT HIRE				
3.4.1	PSL 8.2.19 (d)	Data logger - GSM	Day	20		
3.4.2	PSL 8.2.19 (e)	Data logger - pressure	Day	5		
3.4.3	PSL 8.2.19 (f)	Data logger - flow	Day	13		
3.4.4	PSL 8.2.19 (g)	Data logger - pressure & flow	Day	20		
3.4.5	PSL 8.2.19 (h)	Supply, install and maintain software to monitor flow and pressure for all bulk water meters (Items 3.1.1 to 3.2.4) (My City or similar approved, automated cloud based meter reading sent at pre-selected time based intervals).	Sum	1		

NO NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
4		SECTION 4: SURVEYS				
4.1	PSL 8.2.20	CONNECTIONS, WATER SUPPLY SYSTEM/RETICULATION, WATER TREATMENT WORKS				
4.1.1	PSL 8.2.20 (a)	Audit of each domestic consumer meter	No.	500.00		
4.1.2	PSL 8.2.20 (b)	Investigate each domestic consumer and update audit for 'second sweep'	No.	50.00		
4.1.3	PSL 8.2.20 (a)	Investigate each industrial consumer and complete audit	No.	1.00		
4.1.4	PSL 8.2.20 (b)	Investigate each industrial connection and update audit for 'second sweep'	No.	1.00		
4.1.5	PSL 8.2.20 (a)	Investigate each institutional consumer and complete audit	No.	5.00		
4.1.6	PSL 8.2.20 (b)	Investigate each institutional connection and update audit for 'second sweep'	No.	2.00		
4.1.7	PSL 8.2.20 (a)	Investigate each commercial consumer and complete audit	No.	7.00		
4.1.8	PSL 8.2.20 (b)	Investigate each commercial connection and update audit for 'second sweep'	No.	2.00		
4.1.9	PSL 8.2.20 (a)	Investigate each communal standpipe and complete audit	No.	1150.00		
4.1.10	PSL 8.2.20 (c)	Water loss audit at WTW's. Determine process losses and make recommendations to reduce losses.	No.	2.00		
4.1.11	PSL 8.2.20 (d)	Water loss audit for toilet cistems at all indigent households. Determine losses and make recommendations to reduce losses.	No.	800.00		
4.1.12	PSL 8.2.20 (e)	Water loss audit at all reservoirs Determine losses and make recommendations to reduce losses.	No.	20.00		
4.1.13	PSL 8.2.20 (f)	Audit of each bulk water meter	No.	20.00		
4.1.14	PSL 8.2.20 (g)	Investigate each bulk water meter and update audit for 'second sweep'	No.	5.00		
4.1.15	PSL 8.2.20 (h)	Status quo audit on telemetry system at all installations	Sum	1.00		
4.2		Network Data validation				
4.2.1	PSL 8.2.20 (i)	Complete Audit of all other attributes on the bulk and reticulation network, including valves and FH's condition assessment and status assessment (Inspection, test and report)	km	450.00		

NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
5	SANS 1200 DB	SECTION 5: DIGGING AND TRENCHING FOR LEAK REPAIR AND PIPE INSTALLATION				
5.1	8.3.1	SITE CLEARANCE				
5.1.1		a) Clear vegetation, grass, shrubs, etc. and trees of girth up to 1m and remove.	m	500		
		c) Remove & stockpile, maintain and reinstate topsoil (150mm deep) for shrubs, trees and grass along route of water pipes - 2m wide	m2	1000		
5.2	SANS 1200 DB	EXCAVATION				
5.2.1	8.3.2 PSDB 8.3.2 (a)	Exploratory excavations in all material to a maximum depth of 1.5m for location of existing pipework / services and retrofitting/laying, bedding, backfill, compact and dispose of unsuitable material.	m ³	240.00		
	PSDB 8.3.2(a)	Excavate in all materials for trenches, backfill, compact and dispose of surplus / unsuitable material for :				
		Trenches of widths up to 800mm for water mains up to 200mm dia				
		Over and Up to in soft material				
5.2.2		0,0 m 1,0 m	m	50.00		
5.2.3		1,0 m 1,5 m	m	400.00		
5.2.4		1,5 m 2,0 m	m	50.00		
5.2.5	PSDB 8.3.2(b)(3)	Extra over for hand excavation in soft soil (where ordered by the engineer) for installation of pipework / services and retrofitting, backfill and compact and dispose of unsuitable material.	m ³	100.00		
5.2.6	8.3.2(b)	Extra over items 5.2.1 and 5.2.5 for hard rock excavation	m³	5.00		
5.2.7	8.3.3.1(c) PSDB 8.3.3.1(c)	Extra over 5.2.1 & 5.2.2 including for selected backfilling and additional compaction at road crossings. c) by importation from commercial sources	m ³	50.00		
	8.3.6.1 PSDB 8.3.6.1	Extra over 5.2.1 & 5.2.2 including for reinstatement of road finishes:				
5.2.8	PSDB 8.3.6.1	b) Medium grade asphalt	m2	20.00		
5.2.9	PSDB 8.3.6.1	c) Gravel wearing course	m2	100.00		

ITEM	PAYMENT REFERS	G AND TRENCHING FOR LEAK REPAIR AND PIPE INS DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
Section 5	5: Digging ar	nd trenching for leak repair and pipe installation - Brought	Forward			
5.3	8.3.5(a)	EXISTING SERVICES Existing services that intersect a pipe trench:				
		Temporary Protection of:				
5.3.1		Telkom/Electric cable	N°	10.00		
5.3.2		Water supply pipes up to 250mm dia.	Nº	5.00		
5.3.3		Fence	N°	10.00		
	8.3.5(b)	Services intersecting a trench at an angle in plan less than 45° or parallel: Temporary protection of:				
5.3.4		Telkom/Electric cable	m	20.00		
5.3.5		Water supply pipes up to 250mm dia.	m	100.00		
5.3.6		Fence	m	100.00		
5.4	SANS 1200 LB	BEDDING				
	8.2.1	Provision of bedding from trench excavation:				
5.4.1		a) Selected granular material	m³	5.00		
5.4.2		b) Selected fill material	m³	5.00		
	8.2.2	Supply of bedding by importation from:				
	8.2.2.3	Commercial Sources				
5.4.3		a) Selected granular material	m³	160.00		
5.4.4		b) Selected fill material	m³	0.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	Prv Sum	1.00	260,000.00	-260,000.
	1	1	1			

TEM	PAYMENT	METER SUPPLY AND INSTALL OF DOMESTIC WAT	UNIT	TENDER	TENDER	TENDER
NO	REFERS	DESCRIPTION	ONII	QUANTITY	RATE	AMOUNT
	SANS	SECTION 6: WATER METER SUPPLY AND				
6	1200 LF	INSTALL OF DOMESTIC WATER METERS				
	PSLF 8.2.4	WATER METERS (supply only)				
6.1	(a)	WATER METERS (supply only)				
		This rate includes for 1m of 20mm/25mm polycop				
		pipe, all anticipated connections and elbows required				
		etc) 15mm SABS approved Class C Meter and fittings				
6.1.1		(Kent, Sensus or similar approved type)	No	600.00		
6.1.2		20mm SABS approved Class C Meter and fittings				
0.1.2		(Kent, Sensus or similar approved type)	No	200.00		
	PSLF 8.2.7	Surface boxes (supply only)				
6.1.4		SABS approved standard polymer surface mount		200.00		
		water meter box	No			
		SABS approved above ground polymer Gooseneck				
6.1.5		water meter box (ABG Box)	No	600.00		
040		Established Constitution (constitution)	NI.	40.00		
6.1.6		Extra over for flow restrictor (smart meter)	No	10.00		
6.1.7		Extra over for Remote Reading Transmitter to be	No	450.00		
		supplied and fitted for residential meters	140			
6.1.8		Extra over for Remote Reading Transmitter to be	No	5.00		
		supplied and fitted for industrial meters				
6.1.9		Mater reading cost for 10 months (outsmoted aloud	Month	18.00		
0.1.9		Meter reading cost for 18 months (automated cloud based meter reading sent at pre-selected time based	Month	18.00		
		interval (only for meters in 6.1.7, and 6.1.8)				
		WATER METERS AND SURFACE BOXES (install				
6.2		only)				
6.2.1	PSLF 8.2.4	Rate to install any of the above meters including the meter boxes	No	800.00		
	(b)	Infetel boxes				
	SANS	EXCAVATION (same as trenching)				
6.2.2	1200 DB					
6.2.3	8.3.2	Exploratory excavations in all material inside the erf	m ³	33.75		
	PSDB 8.3.2	boundary to a maximum depth of 1m for location of	""			
		existing pipework and retrofitting, backfill and				
		compact and dispose of unsuitable material.				

ITEM NO	PAYMENT REFERS	METER SUPPLY AND INSTALL OF DOMESTIC WAT DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
ection 6	3: Water met	er supply and install of domestic water meters - Brough	t Forward			
6.3	SANS 1200 LF	ERF CONNECTIONS				
		Supply, lay, joint and bed on-site supply pipeline:				
	8.22 PSLF 8.22	(a) PE 80 PN12,5 black HDPE pipes of 15mm diameter connecting to existing mains of diameter (including excavation, bedding, backfilling and all fittings):				
6.3.1		32mm	m	20.00		
6.3.2		40mm	m	20.00		
6.3.3		63mm	m	20.00		
6.3.4		75mm	m	20.00		
6.3.5		90mm	m	20.00		
6.4		STANDPIPES				
6.4.1	PSLF 8.2.9 (a)	SUPPLY Readymade Standpipe for domestic use for 15mm pipework (rate includes for 90mm PVC sleeve, concrete, piping, elbows, fittings and tap) refer to drawing	N°	150.00		
6.4.2	PSLF 8.2.9 (b)	INSTALL readymade Standpipe for domestic use for 15mm pipework (rate includes for 90mm PVC sleeve, concrete, piping elbows, fittings and tap) refer to drawing	N°	150.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	Prv Sum	1.00	890,000.00	-890,000

CONTRA	CT NO.	T MUNICIPALITY - WCDM INITIATIVES				
ITEM NO	PAYMENT REFERS		UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
7		SECTION 7: CISTERNS				
7.1		Supply Cistern and Internals (SANS approved) (To include total supply cost including contractors markup, handling, transport to site etc)				
7.1.1		Internal flush mechanism type 1	each	25.00		
7.1.2		Internal flush mechanism type 2	each	25.00		
7.1.3		Complete plastic Cistern including flush mechanism (6 Litre)	each	300.00		
7.1.4		Complete plastic Cistern including flush mechanism (9 Litre)	each	50.00		
7.1.5		Supply taps/valve/stopcock before entry to Cistern (per cistern connection)	each	400.00		
7.2		Install of Plumbing and Drainage (internally) (To include the total and final installation cost for				
		scheduled items)				
7.2.1		Install cistern flush mechanism complete	No.	50.00		
7.2.2		Install complete Cistern units where necessary	No.	350.00		
7.2.3		Install taps / stopcocks where necessary	No.	400.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	PrvSum	1.00	230,000.00	-230,000.00
SECTION	N 7: TOTAL C	ARRIED FORWARD TO THE SUMMARY			l	R

O.R.TAMBO DISTRICT MUNICIPALITY - WCDM INITIATIVES CONTRACT NO. SECTION 8: MATERIAL SUPPLY						
ITEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
8		SECTION 8: INSTALL NEW AND REPAIR OF WATER RETICULATION				
	SANS 1200A PSA 8.6	Material Supply only				
		Installation rates to be covered under trenching and Dayworks rates				
8.1	PSA 8.6 (a)	Prime Cost Sum for supply of miscellaneous piping and fittings, bulk meters, valves and all associated materials (excl. Domestic meters, cistems and stand	PC Sum	1.00	R 1,000,000.00	R1,000,000.00
8.1.1	PSA 8.6 (b)	Contractors mark up on Above items	%	1,000,000.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	Prv Sum	1.00	440,000.00	-440,000.00
SECTION	N 8: TOTAL C	ARRIED FORWARD TO THE SUMMARY				R

TEM	PAYMENT			TENDER		TENDER
NO	REFERS	DESCRIPTION	UNIT	QUANTITY	TENDER RATE	AMOUNT
9		SECTION 9: CHAMBERS AND ANCILLARIES				
	SANS 1200 L 8.2.13	CHAMBERS Construct chambers complete as shown on the drawings, all inclusive.				
9.1.1	PSL 8.2.13	i) Valve Chamber - In carriageway	No.	1.00		
9.1.2		ii) Valve Chamber - Outside carriageway	No.	5.00		
9.1.3		iii) Scour Valve Chamber	No.	1.00		
0.1.4		iv) Bulk Water Meter Chamber up to 160mm diameter	No.	2.00		
.1.5		iv) Bulk Water Meter Chamber over 160mm diameter	No.	3.00		
.1.6		v) Pressure Reducing Valve Chamber	No.	2.00		
	PSL8.2.16 8.2.16	Concrete valve and hydrant markers	No.	10.00		
9.2	PSG	ANCILLARIES				
	SANS 1200 L	Anchor/Thrust Blocks				
	8.2.11 PSG 8.1.3	a) Concrete mix 25 MPa/20 mm	m³	3.00		
.2.2		b) Formwork	m²	15.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	Prv Sum	1.00	80,000.00	-80,000

ITEM	PAYMENT	LATION OF PIPEWORKS AND FITTINGS		TENDER	TENDED DATE	TENDER
NO	REFERS	DESCRIPTION	UNIT	QUANTITY	TENDER RATE	AMOUNT
10		SECTION 10: INSTALLATION OF PIPEWORKS AND FITTINGS				
	SANS1200A PSA 8.6	Installation costs only				
	8.6 (c) PSA 8.6 (c)	Extra-over Item for laying, jointing, bedding, FBE coating, testing SG and other specials for use with uPVC/AC piping for material purchased under section 8:				
10.1		Adaptors				
10.1.1		200mmø Flange Adaptor fbe	No.	2.00		
10.1.2		150mmø Flange Adaptor fbe	No.	2.00		
10.1.3		100mmø Flange Adaptor fbe	No.	2.00		
10.1.4		75mmø Flange Adaptor fbe	No.	2.00		
10.2		Spool Pieces (one side plain ended and other side flanged)				
10.2.1		200mmø GMS spool piece 1000mm long	No.	2.00		
10.2.2		150mmø GMS spool piece 1000mm long	No.	2.00		
10.2.3		100mmø GMS spool piece 1000mm long	No.	2.00		
10.2.4		75mmø Flange Adaptor fbe	No.	2.00		
10.3		VJ Flange Adaptors				
10.3.1		200mmø	No.	2.00		
10.3.2		150mmø	No.	2.00		
10.3.3		100mmø	No.	2.00		
10.3.4		75mmø	No.	2.00		
10.4		Bulk Flowmeters				
	8.6 (c) PSA 8.6 (c)	Install flanged bulk water meter PN16 along with adjoining fittings. Drilling shall be to SABS 1123 Table 16. (Sensus Meistream or similar approved)				
10.4.1		250mmø	No.	2.00		
10.4.2		200mmø	No.	5.00		
10.4.3		160mmø	No.	4.00		
10.4.4		100mmø	No.	2.00		
10.4.5		90mmø	No.	1.00		
10.4.6		75mmø	No.	1.00		
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

10.5		Gate Valves				
	8.6 (c) PSA 8.6 (c)	Install spigotted and socketed waterworks pattern PN16,anti dockwise dosing, non-rising spindle with cap top.				
10.5.1		100mmø Wedge Gate Valve class 16 Ainsworth or Similar Approved (f.b.e)	No.	2.00		
10.5.2		150mmø Wedge Gate valve class 16 Ainsworth or similar approved (f.b.e)	No.	2.00		
10.5.3		200mmø Wedge Gate valve class 16 Ainsworth or similar approved (f.b.e)	No.	2.00		
	8.6 (c) PSA 8.6 (c)	Non Return Valve				
10.6.1		100mmø Wafer single door swing check valve class 16 Ainsworth or similar approved	No.	2.00		
10.6.2		150mmø Wafer single door swing check valve class 16 Ainsworth or similar approved	No.	2.00		
10.6.3		200mmø Wafer single door swing check valve class 16 Ainsworth or similar approved	No.	2.00		
10.7	8.6 (c) PSA 8.6 (c)	Pipe installation of uPVC pipes class 9 of diameters: Installation including laying and jointing				
10.7.1		315mmø	m	10.00		
10.7.2		250mmø	m	10.00		
10.7.3		200mmø	m	10.00		
10.7.4		160mmø	m	10.00		
10.7.5		110mmø	m	10.00		
10.7.6		90mmø	m	10.00		
10.7.7		75mmø	m	10.00		
10.8		Pressure Reducing Valves for pipe diameters				
10.8.1		315mmø	No.	1.00		
10.8.2		250mmø	No.	1.00		
10.8.3		200mmø	No.	1.00		
10.9		VJ Couplings for pipe diameters:				
10.9.1		250mmø	No.	1.00		
10.9.2		200mmø	No.	1.00		
10.9.3		150mmø	No.	1.00		
10.9.4		100mmø	No.	1.00		
10.9.5		75mmø	No.	1.00		
		Provisional Sum for work to be allocated to SMME Subcontractors for this section and to be deducted from the above items (corresponding to the provisional Sum in Section 12 - SMME's)	Prv Sum	1.00	90,000.00	-90,000

CONTRA	CT NO.	T MUNICIPALITY - WCDM INITIATIVES UNITY WATER AWARENESS AND EDUCATION				
ITEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
11		SECTION 11: COMMUNITY WATER AWARENESS AND EDUCATION				
		As far as possible these will be functional items e.g. calendars, rulers, diaries etc. The message they carry will therefore have a prolonged "lifespan". All printed material should be in both isiXhosa and English and in colour.				
		All designs and material will need to be approved by municipality before printing and distribution.				
11.1		Design and Print A3 posters	No.	25.00		
11.2		Design and supply WCDM banners for municipality	No.	5.00		
11.3		Design and print Pamphlets and information leaflets	No.	100.00		
11.4		Design and print A1 Calendars	No.	50.00		
11.5		Supply branded pens and rulers for school water awareness campaigns	No.	150.00		
11.6		Supply branded 20I buckets for distribution at community and school awareness campaigns	No.	150.00		
11.7		Supply branded 250ml mugs with handles for distribution at schools during water awareness campaigns.	No.	10.00		
SECTION	N 11: TOTAL	CARRIED FORWARD TO THE SUMMARY				R

TEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
12		SECTION 12: SMME PORTION OF THE WORKS				
12.1	PSA 8.14 (a)	SMME Subcontract works for section 5 - digging and trenching for leak repair and pipe installation	Prov Sum	1	260,000	R 260,000
12.2	PSA 8.14 (a)	SMME Subcontract works for section 6 water meter supply and install of domestic water meters	Prov Sum	1	890,000	R 890,000
12.3	PSA 8.14 (a)	SMME Subcontract works for section 7 - retrofitting of cisterns	Prov Sum	1	230,000	R 230,000
2.4	PSA 8.14 (a)	SMME Subcontract works for section 8 - material supply	Prov Sum	1	440,000	R 440,000
12.5	PSA 8.14 (a)	SMME Subcontract works for section 9 - chambers and	Prov Sum	1	80,000	R 80,000
2.6	PSA 8.14 (a)	SMME Subcontract works for section 10 - installation of pipework and fittings	Prov Sum	1	90,000	R 90,000
12.7	PSA 8.14 (b)	Preliminary and General and Profit for EME	%	44%	R 1,990,000.00	R 875,600
2.8		Contractor's compensation on items 12.1 - 12.7, PSA 8.14 (a) and PSA 8.14 (b)	%		R 2,865,600.00	
2.9	PSA 8.15 (a)	SMME training Accredidate training by the Department of Labour or other service providers	Prov Sum	1	R 20,000.00	R 20,000
2.10	PSA 8.15 (b)	Handling cost and charges for the Contractor on item 12.4 above	%		R 20,000.00	

CONTRA		T MUNICIPALITY - WCDM INITIATIVES UMS				
ITEM NO	PAYMENT REFERS	DESCRIPTION	UNIT	TENDER QUANTITY	TENDER RATE	TENDER AMOUNT
	SANS 1200 A 8.5	Provisional Sums (to be ordered at the discretion of the Engineer)				
13	PSA 8.5	SECTION 13 : Provisional Sums				
		Telemetry				
13.1.1	PSA 8.5.1	Repairs/upgrade to the telemetry system	Prov Sum	1.00	R 230,000.00	R 230,000.00
		Water Treatment Works				
13.1.2	PSA 8.5.1	Repairs of high priority items at Tsolo WTW	Prov Sum	1.00	R 1,265,000.00	R 1,265,000.00
13.1.3	PSA 8.5.1	Repairs of high priority items at Sidwadweni WTW	Prov Sum	1.00	R 1,426,000.00	R 1,426,000.00
		Pressure & Flow Logging Fittings				
13.1.4	PSA 8.5.1	Additional fittings required to fit Loggers to the reticulation as specified by the manufacturers	Prov Sum	1.00	R 50,000.00	R 50,000.00
13.1.4	SANS 1200DB 8.3.7	Accommodation of traffic	Prov Sum	1.0	R 100,000.00	R 100,000.00
SECTIO	N 13: TOTAL	CARRIED FORWARD TO THE SUMMARY				R 3,071,000.00

O.R.TAMBO DISTRICT MUNICIPALITY - WCDM INITIATIVES CONTRACT NO. SUMMARY				
	SUMMARY OF THE BILL OF QUANTITIES			
SECTION 1	PRELIMINARY & GENERAL	R		
SECTION 2	LEAK DETECTION AND DETECTION OF SERVICES	R		
SECTION 3	FLOW AND PRESSURE LOGGING	R		
SECTION 4	SURVEYS	R		
SECTION 5	DIGGING AND TRENCHING FOR LEAK REPAIR AND PIPE INSTALLATION	R		
SECTION 6	WATER METER SUPPLY AND INSTALL OF DOMESTIC WATER METERS	R		
SECTION 7	CISTERNS	R		
SECTION 8	INSTALL NEW AND REPAIR OF WATER RETICULATION	R		
SECTION 9	CHAMBERS AND ANCILLARIES	R		
SECTION 10	INSTALLATION OF PIPEWORKS AND FITTINGS	R		
SECTION 11	COMMUNITY WATER AWARENESS AND EDUCATION	R		
SECTION 12	SMME PORTION OF THE WORKS	R		
SECTION 13	PROVISIONAL SUMS	R		
	NET TOTAL OF TENDER	R		
	ADD 10% FOR CONTINGENCIES	R		
	NET TOTAL OF TENDER	R		
	ADD 8% FOR CONTRACT PRICE ADJUSTMENT	R		
	NET TOTAL OF TENDER	R		
	ADD 15% VALUE ADDED TAX	R		
	AMOUNT CARRIED TO FORM OF OFFER AND ACCEPTANCE	R		
	I	R		

SIGNED BY/ON BEHALF OF TENDERER

DATE

COMPANY STAMP

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Declaration			
(In respect of completeness of T	ender)		
O. R. TAMBO DISTRICT MUNIC	CIPALITY		
Nelson Mandela Drive			
Myezo Park			
Mthatha			
Part C2 of this Contract Docume	ent in consecutive order upo 23/24 – SIDWADWENI RE	properly priced Bill of Quantities form on which my/our tender for the PROJE GIONAL WATER SUPPLY SCHEMI has been based.	CT
SIGNED BY/ON BEHALF OF TE	ENDERER		
NAME	SIGNATURE	DATE	

Part C3: SCOPE OF WORK

OR TAMBO DISTRICT MUNICIPALITY

CONTRACT NO: ORTDM SCMU 34-23/24

SIDWADWENI REGIONAL WATER SUPPLY SCHEME -WATER CONSERVATION AND DEMAND MANAGEMENT

		Page
C3.1	Description Of The Works	133
C3.2	Engineering	137
C3.3	Procurement	139
C3.4	Construction	144
C3.5	Management	153
C3 6	Annexes (Specifications)	165

Status

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Specification(s) forming part of this contract or any drawings, the order of precedence, unless otherwise specified, is:

- Drawings
- Project Specifications (including amendments to standard and particular specifications)
- Bill of Quantities
- Particular Specifications
- Standard Specifications.

The above notwithstanding, any discrepancy shall be brought to the attention of the Employer's Agent for clarification.

C3.1. DESCRIPTION OF THE WORKS

STATUS

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Specification(s) forming part of this contract or any drawings, the order of precedence, unless otherwise specified, is:

- The Form of Offer and Acceptance
- Contract Data
- Special/Particular Conditions of Contract
- General Conditions of Contract
- Project Specifications (including amendments to standard and particular specifications)
- Particular Specifications
- Standard Specifications.
- · Bill of Quantities
- Drawings.

The above notwithstanding, any discrepancy shall be brought to the attention of the Employer's Agent for clarification.

C3.1.1 Employer's Objectives

The objective of the Employer (O.R. TAMBO DISTRICT MUNICIPALITY) is to embark on a Water Conservation and Demand Management initiative to reduce unaccounted for water in the O.R TAMBO DISTRICT municipal region and to proceed with the project as quickly as possible

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.

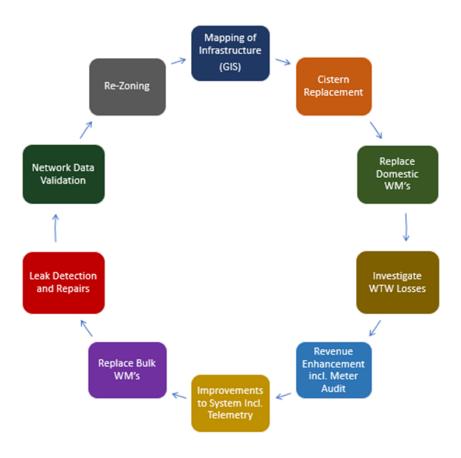
C3.1.2 Overview of the Works

The contract forms part of the O.R. TAMBO DISTRICT MUNICIPALITY's (ORTDM) proposed WCDM initiative and covers a wide area in the municipal district.

C3.1.3 Extent of the Works

The works will entail the execution of various work packages as shown in the flow diagram to follow, after the status quo of the system has been established. The agreement of work packages will be carried out in conjunction with the Employer's Agent (EA) and his Representative (EAR):

- 1. The first order of work will be to establish the status quo of the water supply by carrying out a leak detection survey, by means of visual, sounding and correlation surveys. A programme will then be established between the EA and the Contractor on the way forward.
- 2. At the WTW establish if there are any leakages, repair and then install or repair flow meters to determine the inflow and outflows at the WTW.
- 3. A water meter audit of all existing water meters, domestic, commercial, and institutional properties
- 4. Replace existing domestic water meters and install new meters to where there are none and are required.
- 5. Replace bulk water meters and install new meters where required.
- 6. Investigate water losses by installing data logging equipment in conjunction with the ER and the AER to read flows and pressures of bulk watermains.
- 7. Rezoning of areas where water pressures are deemed too high or low.
- 8. Audit and replace cisterns in areas where there are flush toilets.
- 9. Water loss audits.
- 10. Check and improve telemetry systems.



This description of the Works is not necessarily complete. The above diagram shall not limit the work to be carried out under this Contract.

C3.1.4 Location of the Works

The works will be executed in numerous villages, treatment works and reservoirs in the Tsolo area of the O.R. TAMBO DISTRICT municipal region.

C3.1.5 Description of Site and Access

The site encompasses a large area of the O.R Tambo district municipality and will be refined and defined in conjunction with the Employers Agent.

The contractors site office could possibly be located at the Tsolo Water Treatment Works, as this seems to be the most central. Tsolo is situated on the R396, the turn-off is approximately 40km north of Mthatha along the N2. Also refer section C3.4.4.

As this a large area to be serviced, the contractor may change the position of his site camp to suit the extent of work to be carried out. No additional compensation will be made to the Contractor for such changes in position.

C3.1.6 Temporary Works

Normal temporary work such as supports for formwork, shoring of trenches, road diversion equipment etc. will be required to facilitate construction.

The Contractor shall be responsible for designing and providing any temporary works required. Such temporary works shall be removed upon completion of the Works.

Such temporary works shall be removed upon completion of the Works and the site of such temporary works re-instated to a pristine condition acceptable to the Environmental requirements.

C3.1.7 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 take into account 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 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.

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
 Employer

Basic engineering and detail layouts to tender stage
 Employer

Final design to approved construction stage
 Employer

Temporary works
 Contractor

Preparation of record drawings and GIS information
 Contractor/Employer

C3.2.2 Employer's Design

The extent of the Employer's Agent's design is shown on the layout plans.

The Contractor will be responsible for design of all temporary works and all construction methods, all shoring and lateral support that may be required. The Contractor will also be responsible for the preparation of method statements before commencing with construction.

C3.2.3 Drawings

The drawings issued to Tenderers as part of the Tender Document must be regarded as provisional and preliminary for the Tenderer's benefit to generally assess the scope of the work. The drawings are issued separately in a book of drawings.

The work shall be carried out in accordance with the latest available revision of the drawings to be issued by the Employer's Agent for construction. At commencement of contract, the Employer's Agent shall deliver to the Contractor two sets copies of the construction drawings and any instructions required for the commencement of the works.

From time to time thereafter during the progress of the works, the Employer's Agent may issue further drawings or revisions for construction purposes as may be necessary for adequate construction and completion of the works and defects correction.

The Contractor will be required to mark up one complete set of prints of the construction drawings with as-built information and submit these to the Employer's Agent at the end of construction, prior to issue of the Certificate of Practical Completion.

The drawings for tender purposes, issued separately on a DVD/flash drive, are listed as follows:

503081-WCDM-DRG-CC-0900 - Bulk and Reticulation Locality Plan

503081-WCDM-DRG- CC -0901 - Layout Plan Sheet 1 of 4

503081-WCDM-DRG-CC -0902 - Layout Plan Sheet 2 of 4

503081-WCDM-DRG-CC -0903 - Layout Plan Sheet 3 of 4

503081-WCDM-DRG-CC -0904 - Layout Plan Sheet 4 of 4

503081-WCDM-DRG- CC -0905 - Trench Details

503081-WCDM-DRG- CC -0906 - Typical Air, Scour and Gate Valve Details

503081-WCDM-DRG- CC -0907 - Typical Gate Valve Chamber, Standpipe and Pipe Marker Details

503081-WCDM-DRG- CC -0908 – Water Meter Chamber and Details (Sheet 1 of 2)

503081-WCDM-DRG- CC -0909 – Water Meter Chamber and Details (Sheet 2 of 2)

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

The Contractor shall note that the Employer is committed to local Exempt Micro Enterprises (EME) and Qualifying Small Enterprises (QSE) development.

It is a Condition of Contract for the Contractor to enter in a subcontract with a local Emerging Enterprise/s, where twenty percent (20%) of the work shall be subcontracted in accordance with the subcontracting procedures referred to in this scope of work who are registered with the CIDB with a **Contractor Grading Designation of 1** in an appropriate class of construction work.

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:

- 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.

C3.3.6 SANCTIONS

In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal outcomes 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, the Contractor shall be liable to pay to the Employer a financial penalty calculated in the following manner:

 $P = 0,50 X (\underline{D-D_0}) x N_A$ (100)

Where D = tendered Contractor participation goal percentage.

 D_o = the Contract Participation Goal, which the Employer's Representative based on the credits passed, certifies as being achieved upon completion of the contract.

 N_A = Net Amount of the Tender

P = Rand value of penalty payable.

The penalties will be calculated with each certificate, based on the information provided under the monitoring indicated in clause C3.3.4 below.

C3.3.7 MONITORING / REPORTING

The reporting requirements below will be adhered to:

CPG attainment will be monitored monthly, and for this the Contractor will supply the relevant information at a time set by the Employer's Agent.

The Contractor shall submit all the documentation required in terms of details of his plan to achieve CPG, compliance with the contract and C3.3.4.2 timeously and, together with his programme of activities, a schedule which indicates clearly the expected commencement and completion dates of work and services to be performed by all the targeted enterprises engaged on the contract for the purpose of securing credits towards the contract participation goal. This schedule shall be updated by the Contractor whenever a change in date occurs.

The Contractor shall prepare and attach to his claim for payment, in a form approved by the Employer, the following:

- a) a brief report which describes the commercially useful functions performed by the targeted enterprises in the performance of the contract, both over the interim period and on a cumulative basis;
- b) a schedule reflecting the estimated total value of the contracts, the cumulative value of the contracts and the value of supplies provided, or work and services performed (or both) over the period for which payment is claimed in respect of each and every targeted enterprise performing commercially useful functions.

Should random inspections conducted by the Employer's Agent on targeted enterprise activities indicate that such enterprises are not performing in accordance with the requirements of this part, the Contractor shall provide, in addition to the above requirements, separate weekly resource returns and any other relevant information in respect of such targeted enterprises in a format approved by the Employer's Agent.

The Employer's Agent shall certify the value of the credits counted towards the contract participation goal whenever a claim for payment is issued to the employer and shall notify the Contractor of this amount.

The Contractor shall, upon completion of each individual targeted enterprise's contract, issue a completion certificate and certify the amount paid to such targeted enterprises. He shall submit the certificates, counter-certified by the relevant targeted enterprise, to the Employer's Agent for record-keeping purposes. The Contractor shall furnish reasons to the Employer whenever it is not possible to obtain such counter certification.

C3.3.8 CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED EME AND QSE

(1) Dispute Avoidance and Resolution Procedures

The 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 EME and QSE subcontractor concerned.
- (b) closely monitor all EME and QSE subcontracts and issue reasonable warnings when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Contractor shall give EEs reasonable opportunity to avoid or make good any such contravention.

When taking any disciplinary actions or imposing any penalties provided for in the subcontract, the Contractor shall explain fully that such actions are in accordance with the conditions of subcontract.

Should any dispute arise between the Contractor and an EE, such dispute shall be resolved in accordance with the provisions of the subcontract.

Should an EME or QSE subcontractor be terminated, the Contractor shall replace such subcontractor with a local EME or QSE subcontractor listed on the ORTDM database.

(2) Quality of Work and Performance of EME or QSE subcontractors

If, in the opinion of the Employer's Agent, an EME or QSE Subcontractor fails to comply with any of the criteria listed below, he/she shall issue a written warning to the Contractor stating all the areas of non-compliance.

- (a) Acceptable standard of work as set out in the subcontract specifications.
- (b) Progress in accordance with the time constraints in the subcontract.
- (c) Site safety.

The circumstances that may warrant the issue of a written warning are, however, not limited to those listed above.

A copy of the letter of warning shall be forwarded to the Employer.

C3.3.9 ISSUING OF COMPLETION CERTIFICATE

The Contractor shall, within 7 days of the completion of each subcontract completed in accordance with the provisions of this specification, issue free of charge to the EME or QSE a Certificate of Completion co-signed by the Employer's Agent and a senior representative of the Contractor who has been duly authorised to do so.

C3.3.10 MEASUREMENT AND PAYMENT

Measurement and payment for work by subcontractors will be in accordance with PSA 1200 A, Variations and Additions to Requirements of Standardised SANS 1200A Specifications.

C3.4. CONSTRUCTION

C3.4.1 PLANT AND MATERIALS

C3.4.1.1 Plant and materials supplied by the employer

The Employer shall not supply any plant or materials for use on this contract. The Contractor shall provide all plant and materials.

C3.4.1.2 Materials, samples and shop drawings

Materials or work, which does not conform to the approved samples submitted in terms of Clause 7.4 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 7.1 of the Conditions of Contract, be for the Contractor's account.

C3.4.2 CONSTRUCTION EQUIPMENT

C3.4.2.1 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.

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.

C3.4.2.2 Equipment provided by the Employer

The Employer shall not supply any equipment.

C3.4.3 EXISTING SERVICES

The Contractor shall familiarize himself with all existing services and liaise with all relevant authorities for the location and detection of existing services. The Contractor shall also use all necessary means to locate and expose services without damage to such services. The Contractor shall protect any services which are visible or can be reasonably expected to be in certain positions. If the Employer's Agent rules that the Contractor has negligently damaged services, the Contractor shall pay the amount certified by the Employer's Agent to the Employer. The Employer's Agent ruling shall be final.

If the Employer's Agent rules that the damage was not due to the Contractor's negligence, the Employer shall pay for the repair of the services so damaged. The responsibility shall remain with the Contractor to establish the position of existing services prior to commencing any

excavation.

C3.4.4 <u>SITE ESTABLISHMENT</u>

C3.4.4.1 Location of site camp and materials storage area

The Contractor shall establish his Site camp and materials storage area at a mutually acceptable location. Written confirmation of the owner's permission to occupy the chosen location shall also be issued to the Employer's Agent if it falls outside the bounds of the site.

The site of the camp must be kept clean and tidy, and on completion of the works the Contractor shall remove all temporary offices, sheds, etc. and shall reinstate the area to the Employer's Agent and/or the owner's satisfaction.

The Employer shall not provide any services to the site during construction.

C3.4.4.2 Water Supply

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

The Contractor shall take note that no separate or direct payment of any kind whatsoever will be made for any cost incurred to obtain, distribute, consume and use water or for the provision of a water supply point or for the cost of water drawn. 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.

C3.4.4.3 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, 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.

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 obtainment, distribution and consumption of electricity, the costs of which will be deemed to be in the Contractor's tendered rates and prices.

C3.4.4.4 Sanitary facilities

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, all to the satisfaction of the responsible health authorities in the area of the Site as well as 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.

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.

C3.4.4.5 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 landowner and Employer.

C3.4.5 SITE USAGE

Access to site shall be limited to the Contractor and his personnel. The Contractor shall be responsible to control unauthorized 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.

C3.4.6 PERMITS AND WAY LEAVES

The contractor is responsible for obtaining all necessary permits and wayleaves from all relevant authorities. The time to obtain such permits and wayleaves should be factored on the programme of works. No time extension will be awarded to the contractor for permit and wayleave applications.

C3.4.7 FACILITIES PROVIDED BY THE CONTRACTOR

C3.4.7.1 Office for the Employer's Agent

The Contractor shall provide facilities for the Employer's Agent as per PSAB 5.2 Employer's Agent's Office.

C3.4.7.2 Sanitary facilities

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 wastewater shall be disposed of off-site.

C3.4.7.3 Security on site

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.

C3.4.7.4 Additional Security on site

Due to the increase of incidents around the country, where site staff are being held up or threatened with violence additional armed security may be required. A provisional sum will be allowed for in the Bill of Quantities for providing this type of security, on an as and when required basis. This will only be approved by the Employer's Agent and the Employer after a thorough risk assessment has been carried out or an incident has occurred and armed security is deemed necessary.

C3.4.8 FEATURES REQUIRING SPECIAL ATTENTION

C3.4.8.1 Site maintenance

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.

C3.4.8.2 Access to properties (where relevant)

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 8.1.1 of the Conditions of Contract.

Where applicable and 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 above, 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.

C3.4.8.3 Monthly statements and payment certificates

The statement 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 three (3) 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.

C3.4.8.4 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.

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.

C3.4.8.5 Workmanship and quality control

The Employer, the Contractor and the Employer's Agent shall operate and maintain their own individual contract administration and quality assurance systems.

The Contractor shall implement his own Quality Assurance plan for executing the works for compliance with the aforementioned standards and specifications.

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

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 C3.4.8.5 (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 C3.4.8.5 (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. Costs of testing

(a) Tests in terms of subclause C3.4.8.5 (i)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.4.8.5 (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 C3.4.8.5 (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 C3.4.8.5 (i) Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution 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.

C3.4.8.6 Public Safety

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

Where the works area is adjacent to a residential area the Contractor shall take special precautions to prevent public access to any dangerous areas on the Works, e.g. by temporary barricades and/or fencing.

C3.4.8.7 Sand and Dust Control

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.4.8.8 Employment of local labour

It is the intention that this Contract should make maximum use of the local labour force that is presently unemployed. The Contractor shall limit the utilisation on the Contract of non-local employees to that of key personnel only and to employ and train local labour to the extent necessary for the execution and completion of this Contract.

The Contractor shall fill in the form entitled Key Personnel in the Forms to be completed by the Tenderer. The data stated on the above-mentioned form will be strictly monitored during the Contract period and any deviations therefrom shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld.

C3.4.9 EXTENSION OF TIME DUE TO ABNORMAL RAINFALL

A claim for extension of time in respect of delays suffered by the Contractor in consequence of abnormal wet climatic conditions will be considered by the Employer's Agent in terms of Clause 5.12 of the Conditions of Contract and in accordance with provisions set out hereunder.

For the purposes of extension of time, a delay caused by abnormal wet climatic conditions will be regarded as a delay only if, in the opinion of the Employer's Agent, all progress on an item or items of work on the critical path of the Contractor's working programme as approved in terms of Clause 5.6 of the Conditions of Contract has been brought to a halt.

Unless it is customary to carry out the work, in respect of which a delay was suffered, by rotary shifts or by day and by night, only delays to critical path items experienced as a result of wet climatic conditions during normal working hours (as defined in Clause 5.8 of the Conditions of Contract) will be taken into account for extension of time. This will apply notwithstanding the fact that a delay may have occurred on a portion of the Works on the critical path due to wet climatic conditions, which work was being executed outside the said normal hours with the permission of the Employer's Agent, granted in terms of Clause 5.8 of the Conditions of Contract.

The Contractor shall make due allowance within his programme submitted in terms of Clause 5.6 of the Conditions of Contract, for the total delay to work items on the critical path resulting from normal wet climatic conditions. The specified allowances for this Contract are defined in Clause 5.12.2.2 of the Contract Data.

Extension of time, if granted by the Employer's Agent, will be determined as the aggregate number of normal working hours for which all progress on the item or items on the critical path was brought to a halt as a result of wet climatic conditions, less the number of normal working days specified in Clause 5.12 of the Contract Data.

In determining the revised Due Completion Date of the Contract, the Employer's Agent shall add the equivalent number of normal working days delay determined in accordance with this Clause and all intervening normal non-working days to the prevailing Due Completion Date.

C3.4.10 <u>VARIATIONS AND ADDITIONS TO SABS 1200 STANDARDIZED</u> SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

The following variations and additions to the SABS 1200 Standardized Specifications referred to shall apply to this Contract. The prefix "PS" indicates an amendment to SANS 1200. The prefix "PSA" indicates an amendment to SABS 1200 A, "PSDB" to SABS 1200 DB and so on. The letters and numbers following these prefixes respectively indicate the relevant Standardized Specification and clause numbers in SABS 1200 to which the variation or addition thereto applies.

An asterisk (*) placed next to a PS Subclause number denotes the inclusion of an additional Subclause for which no equivalent appears in SABS 1200.

The term "project specifications" appearing in any of the SABS 1200 Standardized specifications must be replaced with the term "Scope of Work".

Further to the above it should be noted that where in a specific Standardized Specification reference is made to a Subclause in another Standardized Specification, any amendment or addition to the Subclause referred to, as provided for in the Specification, shall apply. The aforementioned shall also apply with respect to Clauses referred to in a Particular Specification.

C3.5. MANAGEMENT

C3.5.1 MANAGEMENT OF THE WORKS

C3.5.1.1 Planning and Programming

If the programme submitted by the Contractor in terms of Clause 5.6 of the Conditions of Contract has to be revised because the Contractor is falling behind in his programme, he shall submit a revised programme of how he intends to regain lost time to ensure completion of the Works within the period defined in Clauses 5.12 of the Conditions of Contract or within a granted extension of time.

Proposal to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the Site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Employer's Agent to take steps as set out in Clause 9.2 of the Conditions of Contract.

The approval of a programme by the Employer's Agent shall have no contractual significance other than that the Employer's Agent will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Employer's Agent to instruct the Contractor to vary the programme if necessary.

C3.5.1.2 Sequence of the Works

To be determined by the Contractor.

C3.5.1.3 Software Application for Programming

Not applicable.

C3.5.1.4 Methods And Procedures

The Works shall be executed in terms of the various and applicable 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.

C3.5.1.5 Quality Plans and Control

Refer the various and applicable 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.

C3.5.1.6 Environment

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.5.1.7 Accommodation of Traffic on Public Roads Occupied by the Contractor

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.

Work shall be undertaken in accordance with the S.A. Road Traffic Signs Manual and Road Signs Note No. 13, Roadwork (CSRA-CUTA Road Traffic Signs Sub-Committee).

C3.5.1.8 Recording of Weather

Refer C3.4.10.

C3.5.1.9 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) Daily Register of labour and plant status.
- (f) One full set of Contract Drawings and documents.
- (g) 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.

C3.5.1.10 Key Personnel

Key personnel shall be on site at all times to control and supervise construction activities

C3.5.1.11 Management Meetings

Formal project meetings will be held on site in the conference facility as provided by the Contractor required by PSAB 5.2 Employer's Agent's Office. Representatives of the Employer, Employer's Agent and Contractor will be required to attend. The representatives are to have the necessary authority in respect of aspects such as planning and health and safety. The Contracts Manager and Construction Manager (Site Agent) are required to attend all such meetings.

The Contractor shall attend the following meetings during the Contract:

- a) Monthly site meetings, on Site or as called by the Employer's Agent, from the commencement of the Works until the issue of the Practical Completion Certificate (or where necessary as determined by the Employer's Agent).
- b) Monthly technical meetings called by the Employer's Agent (or where necessary as determined by the Employer's Agent).
- c) The following reports shall be submitted by the Contractor before the monthly Site Meetings:
 - Progress Report
 - Plant and Labour returns
 - Updated Programme vs Baseline Programme
 - Updated cashflow projection.

The cost of these requirements shall be included in the rates tendered for Time Related Items.

C3.5.1.12 Forms for Contract Administration

The Employer's Agent's Representative will have a full set of contract administration forms for use on site. This includes forms for recording test results, claims, inspections and the like. The Contractor may use such as a basis for his documentation should he not have adequate similar templates.

C3.5.1.13 Electronic Payments

The Contractor must ensure that all interim payment certificates are accompanied by a Tax Invoice, with the Contractor's and the Employer's VAT Registration numbers printed thereon, to ensure timeous payment of the certificate. Contractors must allow 30 days from date of invoice for the payment to be effected.

Contractors wishing to be paid electronically must ensure that their correct banking details are also printed on their Tax Invoice.

C3.5.1.14 Daily Records

A complete set of daily records indicating labour and plant on site, weather, work performed and any safety incidents, is to be kept on site and must be available for perusal by the Employer's Agent at all times.

C3.5.1.15 Bonds And Guarantees

Bonds and guarantees are to be submitted to the Employer from whom they can be collected once they are released, in accordance with the contract.

C3.5.1.16 Payment Certificates

Measurements for interim and final certificates must be agreed with the Employer's Agent prior to the issuing of a Tax Invoice by the Contractor.

The Contractor is to provide all invoices, vouchers and receipts in respect of payments made by him in connection with provisional or prime cost items when he requires payment for such.

The Contractor is to provide all invoices or receipts in respect of materials purchased and delivered to the site when he requires payment for such. Invoices or receipts are to clearly identify the material, the unit rate thereof, and the quantity/number purchased.

It is a specific requirement of this Contract that the Contractor shall collect and record all relevant information for the completion of end-of-month documentation to be submitted with each payment claim. The Payment Certificate (prepared by the Employer's Agent) will not be accepted by the Employer unless accompanied by the following:

- Local Labour Schedule (in EPWP format; ie giving employee names, IDs, gender, age group and disability status if applicable)
- Monthly Progress Report (from Site Meeting).

C3.5.1.17 Permits

Not applicable.

C3.5.1.18 Proof of Compliance with the Law

The Contractor shall insure his employees against accident in terms of the Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), as amended. A Letter of Good Standing with the Compensation Fund, as issued by the Department of Labour, must be submitted as part of the Tender.

Where the Letter of Good Standing expires during the contract period, the Contractor will be required to submit new, valid documentation. Failing to do so will result in work being stopped.

C3.5.1.19 Insurance Provided by the Employer

No insurance will be provided by the Employer.

C3.5.2 Health and Safety

C3.5.2.1 Health and Safety Requirements and Procedures

- (a) 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, the following arrangements and procedures shall apply between the Contractor and the Employer 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) The Contractor shall furthermore, in compliance with Constructional Regulations 2014 (Notice No 10113, dated 7 February 2013) to the Act acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented coherent site specific health and safety plan as contemplated in regulation 7(1)(a) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted for approval, to the Employer or his agent, within 14 days of the Commencement Date and shall be implemented and maintained from the commencement of the Works. The Contractor shall at all times be responsible for full compliance with the approved plan as well as with the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.
- (vii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to monitor 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.

(viii) The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the C3.4: Construction, the Bill of Quantities, the Drawings, and in the Employers' health and safety specification (regulation 5(1) of the Construction Regulations 2014).

Payment items are included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

C3.5.2.2 Protection of the Public

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

No excavation may left open during the builder's holiday. Excavations left open over other non-working days shall be adequately safeguarded at all times.

C3.5.2.3 Barricades and Lighting

The Contractor is responsible for the safety of the site and shall provide all necessary watching, barricading and lighting. This is especially significant at excavations.

C3.5.2.4 Traffic Control on Roads

The Contractor shall accommodate any pedestrian traffic on the walkways and road past the site, as well as vehicular traffic in the roads.

Accommodation of traffic, where applicable shall comply with SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

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

C3.5.2.5 Measures Against Disease and Epidemics

As specified elsewhere.

C3.5.2.6 Aids Awareness

Not applicable.

C3.5.2.7 Community Participation

The establishment of Project Steering Committee (PSC) shall be through Institutional and Social Development facilitator (ISD).

The Steering Committee provides support, guidance and oversight of progress. The PSC will liaise with the Project Manager in performing the following activities:

- Providing input to the development of the project, including the evaluation strategy
- Providing advice on the budget
- Defining and helping to achieve the project outcomes
- Identifying the priorities in the project where the most energy should be directed
- Identifying potential risks
- Monitoring risks
- Monitoring timelines
- Monitoring the quality of the project as it develops
- Providing advice (and sometimes making decisions) about changes to the project as it develops.

Members do not usually work on the project themselves. Generally, the Project Manager, and other members of the Project Team, actually do the work implementing the project.

The Project Manager will normally attend meetings of the Steering Committee to report on progress and answer any questions raised by members. It's useful to have an additional person (such someone else working on the project or an administrative staff member) attend to assist the Project Manager by recording the minutes and decisions of the meeting.

Role of individual members of the PSC.

Individual Steering Committee members are not directly responsible for managing project activities, but provide support and guidance for those who do. So, individually, Steering Committee members should:

- Understand the aim, strategy and intended outcomes of the project
- Appreciate the significance of the project for their own organisation and clients
- Be genuinely interested in the project and the outcomes that are intended
- Be an advocate for the project by doing what they can to promote its outputs
- Have a broad understanding of project management issues.

C3.5.2.8 Community Liaison Officer

The employment of local labour shall be through a Community Liaison Officer (CLO).

A Provisional Sum allowance has been made for the short-term employment of CLO in accordance with the following Terms of Reference (ToR):

- a) The local leadership will select candidates for the CLO.
- b) The accepted CLO will responsible for liaising with a Project Steering Committee (PSC) for each area.
- c) The CLO is to be appointed for the period of on-site activity, plus a period of 14 days prior to this period.
- d) Remuneration for the CLO will be R 7 500 wages plus R500 cell phone allowance per month for the period of employment.

The CLO will liaise with the Contractor in performing the following activities:

- Organise and assist the contractor in explaining to all workers the labourbased construction model
- Ensure labourers understand their task and the principles behind task work
- Ensure labourers are informed of their conditions of temporary employment
- Attend all site meetings and briefing for work procedures
- Keep written record of interviews and community liaison which should be summarised and included in the monthly progress reports
- Collect monthly welfare reports and submit to social facilitators
- Ensure that contractor's workers are paid what is due to them and in time
- Assist in the recruitment of labour
- Promote and maintain sound relations with community stakeholders and other role players
- 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
- 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
- Keep the labour register of labour and manage records of project local labourers and be able to provide reports on employment statistics

- Consult on all decisions regarding local problems and any matters of importance that, in any way will be of relevance to the Contract.
- To be on site on a daily basis
- To register concerns / perceptions and raise them in the PSC meetings
- Attend site and PSC meetings to present monthly report on the local community labour involvement and site matters
- Identify possible labour dispute and any disciplinary matter and advise the site agent / foreman and assist in the resolution, where necessary must call for the assistance of the Social Consultant for the resolution of the conflicts
- Assist the contractor in preparing records of project employees. Assist the contractor in making task measurements and the records thereof
- Monitor the production of individual task workers and arrange replacement of those workers who fail to produce a reasonable task output
- Attend disciplinary proceedings to ensure that hearings are fair and reasonable
- Communicate daily with the contractor to determine additional labour requirements with regard to numbers and skills and pass this to the PSC
- Attend weekly meetings with the contractor and make a weekly written report which shall be a prerequisite to being paid.

The CLO will liaise with the Social Facilitators in performing the following activities:

- · Assist in convening of workshops
- Disseminate information to PSC members
- Articulate implementing agency policies to PSC members
- Communicate labour requirements
- Attend induction training programmes for workers and induct labourers
- Submit monthly welfare reports to the social facilitators PSC
- Communicate labour and skills requirements to the PSC
- · Assist in the recruitment and engagement of work force
- Verify labour records and ensure all engaged qualify as per the Contract requirements

 Investigate and report all labour dispute matters to the PSC, advise site agent on resolution.

The community is represented by a PSC. All liaisons with the community and the committees are the responsibility of the Social Facilitator in conjunction with the O.R. Tambo District Municipality, the Employer and the Project Steering Committee. The Contractor will be required to liaise through them for any matters pertaining to the community.

C3.5.2.9 Employment of the Local Community Members

The employer's objectives are to deliver public infrastructure using labour intensive methods. It is the intention that this contract should make maximum use of the local labour force that is presently under-unemployed. The Contractor is to limit the import of labour to skilled personnel only. Semi-skilled and unskilled labour is to be sourced from the local community where possible.

It is a requirement that, at least, all unskilled labour taken-on by the Main Contractor and his sub-Contractors are sourced from the immediate local community (but extending to the local Ward where necessary) and that such employment is arranged through the CLO and PSC.

Employment of all temporary labour, whether employed directly or through a Subcontractor, shall comply in all respects with the National Government Department of Labour's regulations; including the minimum wage applicable to construction work in the Eastern Cape or O.R. Tambo District Municipality.

Labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work.

C3.5.2.10 Training of Local Targeted Labour Group

Contractors having a CIDB contractor grading designation of 7CE and higher 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.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1CE, 2CE, 3CE and 4CE shall have personally completed, or are registered on a skills programme for the NQF level 2.

All other site supervisory staff in the employ of such 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	This	unit

	1017 (1 40 1017 (1 4		
		Construction Systems and Techniques to Work Activities	standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation	any one of these 3 unit standards
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman / supervisor	4	Implement Labour- Intensive Construction Systems and Techniques	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain	
		Roads and Stormwater Drainage Use Labour- Intensive Construction Methods to Construct and Maintain	any one of these 3 unit standards
		Water and Sanitation Services Use Labour- Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e. the contractor's most senior representative that is resident on the site)	5	Manage Labour-Intensive Construction Processes	Skills Programme against this single unit

		standard

C3.5.2.11 Certificate of Service

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.

C3.6. ANNEXES (SPECIFICATIONS)

PAGE

- C3.6.1 Variations And Additions To Requirements Of Standardised SANS 1200 166 Specifications: General, Civil And Structural Works
- C3.6.2 Particular Specification EMA: Environmental

Particular Specification – Labour Intensive Construction Methods

Particular Specification: Project Health and Safety Specification

Particular Specification HIV/AIDS Awareness Education Specification

Annex C3.6.1 Variations and Additions to Requirements of Standardised SANS 1200 Specifications: General, Civil and Structural Works

PSA GENERAL (SANS 1200A)

PSA 1 SCOPE

Replace the contents of Clause 1.1, including the notes, with the following:

"1.1 This specification covers requirements, principles and responsibilities of a general nature which are generally applicable to civil engineering construction and building works contracts, as well as the requirements for the Contractor's establishment on the Site."

PSA 2 INTERPRETATIONS

PSA 2.3 DEFINITIONS

In the opening phrase, insert the words: "the definitions given in the Conditions of Contract and" between the words "specification" and "the following".

a) General

Add the following definitions:

"General Conditions and Conditions of Contract. The General Conditions of Contract specified for use with this Contract as amended in the Contract Data.

<u>Specified</u> As specified in the Standardized Specifications, the Drawings, or the Scope of Work. "Specifications" shall have the corresponding meaning."

c) <u>Measurement and payment</u>

Replace the definitions for "Fixed charge", "Time-related charge" and "Value-related charge" with the following:

"<u>Fixed charge</u>. A charge that is not subject to adjustment on account of variations in the value of the Contract Price or the time allowed in the Contract for the completion of the work.

<u>Time-related charge</u>. A charge, the amount of which varies in accordance with the Time for Completion of the Works, adjusted in accordance with the provisions of the Contract.

<u>Value-related charge</u>. A charge, the amount of which varies pro rata with the final value of the measured work executed and valued in accordance with the provisions of the Contract."

PSA 2.4 ABBREVIATIONS

a) Abbreviations relating to standard documents

Add the following abbreviation:

"CKS: SABS Co-ordinating Specification."

PSA 3 MATERIALS

PSA 3.1 QUALITY

Where applicable, materials shall bear an official standardization mark.

Add the following:

"Where proprietary materials are specified, it is to indicate the quality or type of materials or articles required, and where the terms "or similar approved" or "or approved equivalent" are used in connection with proprietary materials or articles, it is to be understood that the approval shall be at the sole discretion of the Employer's Agent."

"PSA 3.3" ORDERING OF MATERIALS

The quantities set out in the Bill of Quantities have been carefully determined from calculations based on data available at the time of its compilation but are to be considered as approximate quantities only. Before ordering materials of any kind the Contractor shall be solely responsible for determining, from the Drawings issued or approved by the Employer's Agent for construction purposes, the actual quantities of materials required for the execution of the Works. No liability or responsibility whatsoever shall be attached to the Employer or the Employer's Agent in respect of materials ordered by the Contractor except when ordered in accordance with the Drawings issued or approved by the Employer's Agent for construction purposes."

PSA 4 PLANT

PSA 4.1 SILENCING OF PLANT

Replace the contents of Clause 4.1 with the following:

"The Contractor's attention is drawn to the applicable regulations pertaining to noise and hearing conservation, framed under the Occupational Health and Safety Act (Act No. 85 of 1993) as amended.

The Contractor shall at all times and at their own cost, be responsible for implementing all necessary steps to ensure full compliance with such regulations, including but not restricted to the provision and use of suitable and effective silencing devices for pneumatic tools and other Plant which would otherwise cause a noise level in excess of that specified in the said regulations.

Where appropriate, the Contractor shall further, by means of temporary barriers, effectively isolate the source of such noise in order to comply with the said regulations."

PSA 4.2 CONTRACTOR'S OFFICES, STORES AND SERVICES

Add the following new paragraph before the existing paragraph in Clause 4.2:

"The Contractor's buildings, sheds and other facilities erected or utilised on the Site for the purposes of the Contract shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. as may be required by the Contractor. The facilities shall always be kept in a neat and orderly condition.

No personnel may reside on the Site. Only night-watchmen may be on the Site after hours."

Delete "and first-aid services" in the second paragraph of Clause 4.2 and add the following:

"The Contractor shall provide on the Site and in close proximity to the actual locations where the work is being executed, one toilet per 15 workmen The toilets shall be effectively screened from public view and their use enforced. Such toilets shall be relocated from time to time as the location of the work being executed changes, to ensure that easy access to the toilets is maintained.

The Contractor shall, where applicable, make all necessary arrangements and pay for the removal of night soil."

PSA 5 CONSTRUCTION

PSA 5.1 SURVEY

PSA 5.1.1 Setting out of the Works

The installed benchmarks shown on the Drawings shall be used by the Contractor for setting out the works.

Add the following paragraph:

"The Contractor shall be required to check and verify, prior to commencement of any construction work, all benchmarks and boundary reference pegs, as shown and detailed on the Drawings. Reference and benchmark pegs disturbed and/or removed during the construction period shall be replaced by a Professional Land Surveyor and the Contractor shall bear the cost of such replacement. Payment to check and verify the reference and benchmark pegs will be made in terms of PSA 8.8.5."

PSA 5.1.2 <u>Preservation and replacement of survey beacons and pegs subject to the Land Survey Act</u>

Delete from the second sentence "Before the commencement "to" apparently in their correct positions" and replace with the following:

"Immediately on taking over the site, the Contractor, in consultation and liaison with the Employer's Agent, shall search for all pegs and the Contractor shall compile a list of pegs that are apparently in their correct position."

Replace the third sentence of Clause 5.1.2 with the following:

"At completion of the Contract, the Contractor shall expose and mark all pegs that were listed at the commencement of the construction as being in order and the Contractor shall arrange with a registered Land Surveyor the replacement of pegs that have become disturbed or damaged. The Contractor shall, as a precedent to the issue of the Certificate of Completion, provide to the Employer's Agent, a certificate from the Registered Land Surveyor, certifying that all the pegs listed at the commencement of construction in accordance with the provisions of this Clause, have been checked and that those found to have been disturbed, damaged or destroyed have been replaced in their correct positions, all in accordance with the provisions of the said Act.

The costs of replacement and certification as aforesaid shall be entirely for the Contractor's account, provided always that the Contractor shall not be held liable for the cost of replacement of pegs which:

- (a) cannot reasonably be re-established in their original positions by reason of the finished dimensions of the Permanent Works; and
- (b) the Contractor can prove beyond reasonable doubt and to the satisfaction of the Employer's Agent, were disturbed, damaged, or destroyed by others beyond their control, and
- (c) were in close proximity to the work and which would unavoidably be removed, subject to the Employer's Agent approval being given to remove such pegs."

PSA 5.2 WATCHING, BARRICADING AND LIGHTING AND TRAFFIC CROSSINGS

Add the following:

"The Contractor shall comply in all aspects with the requirements of the Occupational Health and Safety Act (Act 85 of 1993), refer also PSA 5.7, PSA 5.9 and PSA 5.10."

PSA 5.3 PROTECTION OF STRUCTURES

Replace: "Machinery" and "Occupational Safety Act, 1983, (Act No. 6 of 1983)" with: "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), as amended," and insert the following after "(Act No. 27 of 1956)": "as amended".

PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

Replace the heading and the contents of Clause 5.4 with the following:

"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES

PSA 5.4.1 <u>Location of existing services</u>

Before commencing with any work in an area, the Contractor shall ascertain the presence and actual position of all services which can reasonably be expected by an experienced and competent Contractor to be present on, under, over or within the Site.

Not in any way limiting their liability in terms of the Conditions of Contract in relation to damage to property and interference with services, the Contractor shall, in collaboration with the Employer's Agent, obtain the most up-to-date plans as are available, showing the positions of services existing in the area where it intends to work.

Neither the Employer nor the Employer's Agent offer any warranty as to the accuracy or completeness of such plans and because services can often not be reliably located from plans, the Contractor shall ascertain the actual location of services depicted on such plans by means of careful inspection of the Site. No excavation may commence until the position of the service at the crossing point has been marked out and verified by an official of the responsible authority.

Thereafter, the Contractor shall, use appropriate methodologies, to carefully expose the services at such positions as are agreed to by the Employer's Agent, for the purposes of verifying the exact

location and position of the services. Where the exposure of existing services involves excavation to expose underground services, the requirements of Clauses 4.4 and 5.1.2.2 of SABS 1200 D (as amended) shall also apply.

The aforesaid procedure shall also be followed in respect of services not shown on the plans, but which may reasonably be anticipated by an experienced Contractor to be present or potentially present on the Site.

All services, the positions of which have been determined as aforesaid at critical points, shall henceforth be designated as "Known Services" and their positions shall be indicated by the Contractor on a separate set of Drawings, a copy of which shall be furnished to the Employer's Agent without delay.

As soon as any service which has not been identified and located as described above is encountered on, under, over or within the Site, it shall henceforth be deemed to be a "Known Service" and the aforesaid provisions pertaining to locating, verifying and recording its position on the balance of the Site shall apply. The Contractor shall notify the Employer's Agent immediately should any such service be encountered or discovered on the Site.

Whilst it is in possession of the Site, the Contractor shall be liable for all loss of, or damage as may occur to:

- (a) Known Services, anywhere along the entire lengths of their routes, as may reasonably be deduced from the actual locations at which their positions were verified as aforesaid, due cognisance being taken of such deviations in line and level which may reasonably be anticipated; and
- (b) any other service which ought reasonably to have been a Known Service in accordance with the provisions of this Clause;

as well as for consequential damage, whether caused directly by the Contractor's operations or by the lack of proper protection; provided always that the Contractor will not be held liable in respect of damages occurring to services not being Known Services.

No separate payment will be made to the Contractor in respect of any costs incurred in preparing and submitting to the Employer's Agent, the Drawings as aforesaid and these costs shall be deemed included in the Contractor's other tendered rates and prices included in the Contract.

Payment to the Contractor's in respect of exposing services at the positions agreed by the Employer's Agent and as described above will be made under the payment items (if any) as may be provided therefore in the respective sections of the Specifications pertaining to the type of work involved.

PSA 5.4.2 <u>Protection during construction</u>

The Contractor shall take all reasonable precautions and arrange their operations in such a manner as to prevent damage occurring to all known services during the period which the Contractor has occupation and/or possession of the Site.

Services left exposed shall be suitably protected from damage and in such a manner as will eliminate any danger arising there from to the public and/or workmen, all in accordance with the requirements of the prevailing legislation and related regulations.

PSA 5.4.3 Alterations and repairs to existing services

Unless the contrary is clearly specified in the Contract or ordered by the Employer's Agent, the Contractor shall not carry out alterations to existing services. When any such alterations become necessary, the Contractor shall promptly inform the Employer's Agent, who will either make arrangements for such work to be executed by the owner of the service or instruct the Contractor to make such arrangements himself.

Should damage occur to any existing services, the Contractor shall immediately inform the Employer's Agent, or if this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases, the Contractor shall take appropriate steps to minimise damage to and interruption of the service.

No repairs of telecommunication cables or electric power lines and cables shall be attempted by the Contractor, unless approved by the Employer's Agent.

The Employer will accept no liability for damages due to a delay in having alterations or repairs effected by the respective service owners. The Contractor shall provide all reasonable opportunity, access and assistance to persons carrying out alterations or repairs of existing services."

PSA 5.7 SAFETY

Replace the contents of subclause 5.7 with the following:

"Pursuant to the provisions of the Conditions of Contract, and without in any way limiting the Contractor's obligations there under, the Contractor shall at their own expense (except only where specific provision (if any) is made in the Contract for the reimbursement to the Contractor in respect of particular items), provide the following:

- (a) Provide to their Employees on the site of the works, all safety materials, clothing and equipment necessary to ensure full compliance with the provisions of the Occupational Health and Safety Act (Act No 85 of 1993) and associated Regulations as amended (hereinafter referred to as the Act) at all times, and shall institute appropriate and effective measures to ensure the proper usage of such safety materials, clothing and equipment at all times; and
- (b) Provide, install and maintain all barricades, safety signage and other measures to ensure the safety of workmen and all persons in, on and around the site, as well as the general public; and
- (c) Implement on the site of the works, such procedures and systems and keep all records as may be required to always ensure compliance with the requirements of the Act; and
- (d) Implement all necessary measures to ensure compliance with the Act by all subcontractors engaged by the Contractor and their employees engaged on the works; and
- (e) Full compliance with all other requirements pertaining to safety as may be specified in the Contract.

The Employer shall in terms of the Regulations make such inspections on the site, as they shall deem appropriate, for the purpose of verifying the Contractor's compliance with the requirements of the Act. For this purpose, the Contractor shall grant full access to the site of all parts of the site and shall co-

operate fully in such inspections and shall make available for inspection all such documents and records as the Employer's representative may reasonably require.

Where any such investigations reveal, or where it comes to the Employer's attention that the Contractor is in any way in breach of the requirements of the Act or is failing to comply with the provisions of this clause, the Employer's Agent shall, in accordance with the provisions of Clause 5.11.2 of the Conditions of Contract, be entitled to suspend progress on the works or any part thereof until such time as the Contractor has demonstrated to the satisfaction of the Employer, that such breach has been rectified.

The Contractor shall have no grounds for a claim against the Employer for extension of time and/or additional costs if the progress on the works or any part thereof is suspended by the Employer's Agent in terms of this clause, and the Contractor shall remain fully liable in respect of the payment of penalties for late completion in accordance with the provisions of Clause 5.13 of the Conditions of Contract should the Contractor fail to complete the Works on or before the specified due completion date in consequence of the suspension.

Persistent and repeated breach by the Contractor of the requirements of the Act and/or this clause shall constitute grounds for the Employer's Agent to act in terms of Clause 9.2 of the Conditions of Contract and for the Employer to terminate the Contract in accordance with the further provisions of the said Clause 9.2."

"PSA 5.9" MAINTAINING SERVICES IN USE

The Contractor shall take note that he shall not cut off any service in use without the prior approval of the Employer's Agent.

Failure on the part of the Contractor to comply with any of the above provisions will constitute sufficient reason for the Employer's Agent to stop the works until the situation has been remedied, or should he deem it necessary, arrange for the situation to be remedied at the Contractor's cost.

No direct payment will be made for the cost of maintaining services in use. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.10" DEALING WITH AND ACCOMMODATING TRAFFIC

The Contractor shall take note that the existing roads and tracks within and to the Sites, shall remain operational throughout the contract period. To this end the Contractor shall provide and maintain all temporary fences, security, barriers, kerb ramps, signs, markings, flagmen, drums, lighting, personnel and all other incidentals necessary to ensure safe and easy passage of all traffic.

Temporary traffic signs etc. as well as all necessary markings shall be erected and maintained by the Contractor and the number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport.

Traffic signs shall have a yellow background with either a red or black border.

No direct payment will be made for the cost of dealing with and accommodating traffic. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work

included under the contract. Further, the provision of PSA 5.2 shall apply."

"PSA 5.11" SITE MEETINGS

The Contractor or their authorised agent will be required to attend regular site meetings, which shall normally be held once a month on dates and at times determined by the Employer's Agent, but in any case, whenever reasonably required by the Employer's Agent. Unless otherwise indicated in the Contract or instructed by the Employer's Agent, such meetings shall be held at the Contractor's offices on the Site. At such monthly meetings, matters such as general progress on the Works, quality of work, problems, claims, payments, and safety etc., shall be discussed, but not matters concerning the day-to-day running of the Contract.

"PSA 5.12" PROVIDING ACCESS TO ERVEN AND PROPERTIES

Access to erven and properties along the route of trenches and roads shall be provided by the Contractor at all times. To this end suitable crossings shall be constructed where required.

Temporary crossings shall be in the form of portable bridges, temporary backfill or other approved means and shall be capable of permitting the safe passage of all vehicles and pedestrians. The Contractor shall also be responsible for maintaining crossings and for removing same when they are no longer required.

If because of restricted road reserve widths and the nature of the Works the construction of bypasses is not feasible, construction shall be carried out under traffic in order to provide access to the properties.

The Contractor may, with the approval of the Employer's Agent, arrange with the occupiers of the affected properties to temporarily close off a portion of a road, footpath entrance, property access road or other access, provided that the Contractor shall give due notice of the intended closure and its probable duration to the occupiers and shall as punctually as possible re-open the route at the prescribed time. Where possible, roads shall be made safe and re-opened to traffic overnight. Any such closure shall be an arrangement between the Contractor and the occupiers and shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs and drums shall be provided by the Contractor to suit the specific conditions.

No direct payment will be made for the cost of providing access. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.14" PROTECTION OF LIVESTOCK

From the time of the occupancy of the Site until the date of the Completion Certificate the Contractor shall take all measures necessary for the protection and control of livestock on the sections of the properties affected by his operations. He shall provide gates in existing fences cut by him for the purpose of access and control, and where necessary, to store materials and plant and the Contractor shall ensure that all gates are kept closed during such time as they are not actually in use by his traffic.

Where the Contractor cannot make alternative arrangements, the Contractor shall erect temporary

fencing where necessary to protect livestock exposed to straying through his operations. The fencing shall be maintained in good order during construction operations and on completion of the work it shall be removed from the Site and all surfaces restored to the satisfaction of the property owner.

Payment for the protection of livestock, including the erection of temporary fences and gates where required, shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract.

Claims by property owners for loss of or injury to livestock due to negligence on the part of the Contractor, shall be settled by the Contractor."

"PSA 5.15" ENVIRONMENTAL MANAGEMENT PLAN, RECORD OF DECISION AND SPECIFICATIONS

The Contractor shall be required to comply with the Environmental Specifications during the Contract period.

Non-compliance with the specifications in any way whatsoever, will be adequate reason for suspension of the Works.

The Contractor shall at all times be responsible for full compliance with the specifications and no extension of time will be considered for delays due to non-compliance with the abovementioned.

The applicable environmental documents are bound as Particular Specification EMA.

No direct payment will be made for the cost of complying with the EMP or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.16" ATTENDANCE ON EME AND QSE's

The Contractor shall closely manage and supervise all EME or QSE's and shall manage, guide and assist each EME or QSE in all aspects of management, execution and completion of his subcontract. This shall typically include assistance with planning his 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 Contractor shall be commensurate with the expertise of relevant EME or QSE and shall be directed at enabling the EME or QSE's to achieve the successful execution and completion of the subcontract.

Measurement and payment for work by subcontractors will be in accordance with PSA 8.14.

PSA 6 TOLERANCES

"PSA 6.4* USE OF TOLERANCES

No guarantee is given that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified, or when clearly not applicable, all quantities for measurement

and payment shall be determined from the 'authorized' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Employer's Agent, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorized' dimensions.

If the work is constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the calculation of quantities will be based on the 'authorised' dimensions, regardless of the actual dimensions to which the work has been constructed.

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Employer's Agent may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be calculated based on the actual dimensions as constructed."

PSA 7 TESTING

PSA 7.1 PRINCIPLES

PSA 7.1.2 <u>Standard of Finished Work Not to Specification</u>

Insert the words "or checks by an approved laboratory ..." after the words "Where the Employer's Agent checks ..." in the first line of Clause 7.1.2.

PSA 7.2 APPROVED LABORATORIES

Replace the contents of Clause 7.2 with the following:

"Unless otherwise specified in the relevant specification or elsewhere in the Scope of Work, the following shall be deemed to be approved laboratories in which design work, or testing required in terms of a specification for the purposes of acceptance by the Employer's Agent of the quality of materials used and/or workmanship achieved, may be carried out:

- (a) any testing laboratory certified by the South African National Accreditation Systems (SANAS) in respect of the nature and type of testing to be undertaken for the purposes of the Contract;
- (b) any testing laboratory owned, managed or operated by the Employer or the Employer's Agent;
- (c) any testing laboratory established and operated on the Site by or on behalf of the Employer or the Employer's Agent;
- (d) any testing laboratory designated by the Employer's Agent."

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 MEASUREMENT

PSA 8.1.1 Method of measurement, all sections of the Schedule

Delete the words "and South West Africa".

PSA 8.1.2 <u>Preliminary and General item or section</u>

PSA 8.1.2.1 Contents

Replace the contents of item (c) with the following:

"The 'duration of construction' applicable to a time-related item shall be the tendered contract period for the total works assignment, <u>plus</u> as applicable, the Civil Engineering Industry Holiday (Dec / Jan) and all gazetted public holidays for the Civil Engineering Industry."

PSA 8.1.2.2 Tendered sums

Replace the contents of this Subclause with the following:

"Except only where specific provision is made in the Specifications and/or the Bill of Quantities for separate compensation for any of these items, the Contractor's tendered sums under items PSA 8.3 and PSA 8.4 shall collectively cover all charges for:

- risks, costs and obligations in terms of the Conditions of Contract and of this standardized specification; and
- head-office and site overheads and supervision; and
- profit and financing costs; and
- expenses of a general nature not specifically related to any item or items of the permanent or temporary work; and
- providing such facilities on site as may be required by the Contractor for the proper performance of the Contract and for their personnel, including, but without limitation, providing offices, storage facilities, workshops, ablutions, services such as water, electricity, sewage and rubbish disposal, access roads and all other facilities required, as well as for the maintenance and removal on completion of the works of these facilities and cleaning-up of the site of the Contractor's establishment and reinstatement to not less than its original condition, and
- providing the facilities for the Employer's Agent and his staff as specified in the Contract and their removal from the site on completion of the Contract.
- Completion of monthly reporting/monitoring of Emerging Enterprise Subcontract."

PSA 8.2 PAYMENT

PSA 8.2.1 Fixed-charge and Value-related items

Replace the contents of Clause 8.2.1 with the following:

"Payment of fixed charges will be made as follows:

(a) EIGHTY PERCENT (80%) of the sum tendered will be paid when the facilities have been provided and approved; and

(b) The remaining TWENTY PERCENT (20%) will be paid when the Works have been completed, the facilities have been removed and the site of the Contractor's establishment has been cleared and cleaned to the satisfaction of the Employer's Agent.

No adjustment will be made to the sum tendered in respect of item 8.3.1 should the value of the Works finally executed, or the Time for Completion vary in any way from that specified in the Tender.

The fixed charged items will include all associated cost to deal with the compulsory sub-contracts, other than cost already included under clause 8.3.1.

PSA 8.2.2 Time-related items

Replace the contents of Clause 8.2.2 with the following:

"Subject to the provisions of sub clauses 8.2.3 and 8.2.4, payment under item 8.4.1 (time-related item) will be made monthly in equal amounts, calculated by dividing the sum tendered for the item by the tendered Contract period in months, provided always that the total of the monthly amounts so paid for the item is not out of proportion to the value of the progress of the Works as a whole.

Should the Employer's Agent grant an extension of time for the completion of the total works, the Contractor will be entitled to an increase in the sums tendered for time-related items, which increase shall be in the same proportion to the original tendered sums, as the extension of time is to the duration of construction as defined in PSA 8.1.2.1. The Contractor shall however note that the aforementioned will not apply to extensions of time granted in terms of PSA 8.4.6.

Payment of such increased sums will be taken to be as full compensation for all additional preliminary and general costs, either time-related costs or fixed costs that result from the circumstances pertaining to the extension of time granted."

The payment to the Contractor for Time-Related Items shall be adjusted in accordance with the following formula in the event of the Contract being extended by means of a Variation Order:

Sum of Tendered amounts for Time Related Items x Extension of Time authorised by Variation Order

Tender Contract period

For the purposes of applying this formula "Extension of Time" will exclude the Contractor's December / January close-down period, if applicable.

The abovementioned adjustment of the payment for Time-Related Items shall be made in the completion Payment Certificate and shall be the only payment for additional Time-Related costs irrespective of the actual period required to complete the Contract including its authorised extensions.

In the case of fixed price contracts, the amount by which the Time-Related Items is adjusted shall not be subject to the Contract Price Adjustment formula.

In the case of contracts subject to Contract Price Adjustment the amount by which the time-related items are adjusted shall be subject to the Contract Price Adjustment formula."

PSA 8.3.1 Contractual requirements

Add the following:

The sums tendered shall include full compensation for all fixed-charge preliminary and general charges as described in subclause PSA 8.1.2.2. Payment will be made as described in subclause PSA 8.2.1.

8.3.2 Establishment of Facilities on the Site

PSA 8.3.2.1 Facilities for Employer's Agent

Replace the contents of this Clause with the following:

Notwithstanding the detail breakdown of items provided, a single sum shall be tendered to cover all these items under the heading of "Facilities for Employer's Agent". Payment will be made as described in subclause PSA 8.2.1.

PSA 8.3.2.2 Facilities for Contractor

Notwithstanding the detail breakdown of items provided (items a to j), a single sum shall be tendered to cover all these items under the heading of "Facilities for Contractor". Payment will be made as described in subclause PSA 8.2.1.

Add the following:

"The sum shall further cover all the time-related establishment costs and be the full compensation to the Contractor for:

- (i) The maintenance of his whole organisation as established for this Contract.
- (ii) The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract, where applicable.
- (iii) Compliance with all general conditions and requirements which are not specifically measured elsewhere for payment in these Contract Documents.

Payment shall be made monthly in compliance with the method laid down in PSA 8.2.2.

The Contractor will not be paid Time-Related Preliminary and General Charges for any special Non-Working Days, as stipulated in the Conditions of Contract, which shall be deemed to have been allowed for in his rates.

The sum shall also include, where applicable, for the cost of providing and maintaining the special risks insurance stipulated in the Conditions of Contract."

PSA 8.4.2.1 <u>Facilities for Employer's Agent</u>

Replace the contents of this Clause with the following:

(a) Two Contract NameboardsUnit: Sum

(b)	Survey labourers and equipment	Unit: Labourer Month
(c)	Office Facility (1 furnished office)	Unit: Sum
(d)	Boardroom Facility (1 furnished boardroom)	Unit: Sum
(e)	Data and Internet	Unit: Sum

The facilities provided shall comply with the applicable requirements of SABS 1200 AB and PSAB.

Payment for the provision of survey labourers will be made pro-rata the period the labourers are provided."

PSA 8.4.2.2 Facilities for Contractor

Notwithstanding the detail breakdown of items provided (items a to j), a single sum shall be tendered to cover all these items under the heading of "Facilities for Contractor".

PSA 8.4.2.3 Replace the words "periods stated" in the second line of this Clause with the following:

[&]quot;duration of construction as defined in PSA 8.1.2.1".

"PSA 8.4.6*	Compensation in terms of Subclause 5.12.2.4 and Clause 9.1.4 of the Conditions of Contract for delays incurred:
(a)	PlantUnit: Sum per working day
(b)	LabourUnit: Sum per working day
(c)	Supervision
(d)	Other services, facilities etc. not covered by
	(a), (b) and (c)Unit: Sum per working day

The sum tendered for each item shall cover the full and final standing cost per day of delaying the specified resource or facility and no additional compensation shall apply, notwithstanding any provisions to the contrary in the contract documents, or in respect of any extension of time granted in relation to the circumstances described in Subclauses 5.12.2.4, 9.1.1 and 9.1.2 of the Conditions of Contract.

For the purposes of calculating the total delay, a working week shall be held to consist of five working days and a working day 9 hours.

Payment for the partial standing of any of the scheduled resources for a day or part thereof, or the standing of a complete resource for a part day, will be made pro-rata in proportion to an appropriate factor assessed by the Employer's Agent.

The amount by which compensation for delays is adjusted shall be subject to the contract price adjustment formula as defined in the Conditions of Contract.

This payment item shall only apply to delays which in the opinion of the Employer's Agent are due to the circumstances described in Subclauses 5.12.2.4, 9.1.1 and 9.1.2 of the Conditions of Contract. No Payment will be made for any salary related or other internally caused strikes. The cost of delays incurred for all other circumstances shall be treated as provided for in the Conditions of Contract.

The provision of this Clause shall in no way prejudice the right of either the Employer or the Contractor to determine the Contract in terms of the provisions of Clause 9 of the Conditions of Contract.

The Contractor shall take note that no payment will be considered for any additional cost incurred in protecting his plant and site establishment, as well as for costs incurred in respect of damage to constructional plant and equipment."

PSA 8.5 SUMS STATED PROVISIONALLY BY THE EMPLOYER'S AGENT

Replace the contents of Clause 8.5 with the following:

The Contractor will be reimbursed in substitution of the Provisional Sums (if any) allowed in the Bill of Quantities for work to be executed by the Contractor, in the amounts determined in accordance with the provisions of Clause 6.6 of the Conditions of Contract.

- PSA 8.5.2 Works Executed and performed by the Selected Subcontractors in Consultation with the Employer

Sub-items (a) and (b) will be provided in the Bill of Quantities for each different Selected Subcontract included in the Contract.

The Contractor shall be reimbursed under sub-item (a), in substitution of the respective Provisional Sums (if any) allowed in the Bill of Quantities, the amounts actually paid or payable by the Contractor to the respective Selected Subcontractors, in accordance with the provisions of Clauses 4.4.3 and 6.6 of the Conditions of Contract.

The Contractor shall be paid under sub-item (b), either:

- (a) where the unit of measurement for sub-item (b) was specified as being a percentage, the respective percentage, as stated by the Contractor in their Tender, of the amount certified by the Employer's Agent for payment under the related sub-item (a), all in accordance with the provisions of Clause 6.6.1.2.1 of the Conditions of Contract: or
- (b) where the unit of measurement for sub-item (b) was specified as being a Lump Sum, an amount which is in the same proportion to the amount certified for payment under sub-item (a) and the tendered Lump Sum is to the amount of the Provisional Sum stated under sub-item (a); provided always that where the Contractor has failed for any reason, to insert a percentage or Sum (as applicable) for sub-

item (b) in their tender, or where no provision was made in the Tender Documents for tenderers to make any such entry, the Contractor will, in accordance with the provisions of Sub-clause 6.6.1.2.2, be paid an amount equal to SEVEN AND ONE HALF PERCENT (7½%) of the amount actually certified by the Employer's Agent for payment under sub-item (a).

The percentage or sum (as applicable) paid under sub-item (b) as aforesaid, shall be deemed to include for full and final compensation to the Contractor for all costs as may be incurred and all charges and profits associated with the engagement, supervision, administration and management of the Nominated Subcontractor and in fulfilling their obligations under the contract as the principal Contractor."

The Contractor will be reimbursed in substitution of the Provisional Sums (if any) allowed in the Bill of Quantities for payment of the Community Liaison Officer for the duration of the contract, in the amounts determined in accordance with the provisions of Clause 6.6 of the Conditions of Contract.

Amend Clause 8.6 with the following:

"PSA 8.6 PRIME COST ITEMS

PSA 8.6 (c) Delete the words "in PSA" after specified in the first sentence and replace with "under SANS applicable standards and as shown on drawings". Also change the unit of "Sum" to number (No.) and or meter (m) as applicable to the relevant type of item scheduled.

Delete the last sentence of the last paragraph and replace it to read, "The unit rate for (c) above shall cover the cost of loading, transporting, handling and installing, as applicable, the goods or materials covered by (a) and (b) above as per relevant SANS specifications and as shown on drawings.

The combined rate for sub-items (a), (b) and (c) must cover the total cost for supplying, installing and testing of the scheduled items.

If the Contractor shall have omitted within their Tender to insert a tendered percentage under sub-item (b), or tendered a zero percentage, the Contractor's tendered rate for sub-item (b) shall be deemed to be zero and the Contractor shall not be entitled to any payment under sub-item (b)."

"PSA 8.7 DAYWORK

Add the following:

"To ensure that the plant is achieving a reasonable output of work, the Employer's Agent personnel will randomly monitor and measure work produced. Poor performance of any item of plant will be noted by the Employer's Agent and certain reductions in payment may be applied.

Furthermore, should the performance of a machine be poor, or persistently break down, the Employer's Agent may order that it be replaced, all at the cost of the Contractor."

PSA 8.8 TEMPORARY WORKS

PSA 8.8.4 Existing services

Replace the heading of paragraph (c) with the following:

Add the following:

"The rate tendered for (c) shall further cover the cost of backfilling the excavation with excavated material compacted to 90% of modified AASHTO maximum density, loading, transporting and disposing of surplus material as directed, keeping the excavation safe, dealing with water, protecting the exposed services, and any other operation necessary to complete the work.

No distinction will be made between the various types of services to be exposed, or the depths to which excavations are taken.

Excavation in excess of that authorised will not be measured for payment."

The sum shall cover the cost for the provision, operation, maintaining and removal of all plant and materials required to deal with any water anywhere on site as required in terms of Sub clause 5.1.3 of SABS 1200 D and Sub clause 5.1.2 of SABS 1200 DB. No additional payment will be made for "Special water hazards".

The sum shall cover the cost of providing the necessary plant or materials, or both, fully erected and operative on the Site, the cost of operating and maintaining pumps, well points, sheeting, close timbering, and other equipment, as applicable, for 24 Hours a day, 7 days a week, throughout the period during which the facilities are required, and the cost of removing such goods and restoring the Site to its original condition on completion of that part of the project for which the temporary works were erected.

Two equal payments will be made, one with the first and the other with the last payment certificate.

"PSA 8.8.7" Compliance with the occupational health and safety act (Act 85 of 1993) and all relevant and applicable regulations, especially the construction regulations, 2014 as promulgated on 7 February 2014 under section 43 of the occupational health and safety act (Act 85 of 1993), as amended from time to time, for the duration of the contract

(a'	Contractor	 Unit:	Sum

The tendered sums shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and the Construction Regulations 2014 at all times, as described in the Scope of Work and Employer's health and safety specification (Refer Particular Specification PB). The successful tenderer shall provide the Employer's Agent with a complete breakdown of this tendered sum, if so required.

The Contractor shall note that all obligations contained in the Act, Regulations and Employers health and safety specification shall be included in this item. No additional claims will be considered; neither will an extension of time be considered for delays due to non-compliance with the Contractor's health

and safety plan.

The sums will be paid to the Contractor in equal monthly amounts."									
"PSA 8.9	Provision for compliance of the Environmental Management PlanUnit: Sum								
'PSA 8.10	SMME ManagerUnit: Sum								
"PSA 8.11*	Additional Security for employers agent								
The provisional sum shall cover any additional security required as specified in subclause C3.4.8.4. The provisional sum shall be expended in accordance with Clause 6.6 of the Conditions of Contract."									
"PSA 8.12*	Installation of Benchmarks by Registered SurveyorUnit: No								
The number tendered shall include full compensation for the installation of benchmarks to mSL, by a registered surveyor as required by the Employer's Agent, during construction and shall include the protection during construction and marking the benchmark on completion of the Works.									
NOTE: The cost to set out the Works in terms of 5.1.1 and PSA 5.1.1 shall be deemed to be covered by the sums tendered for other obligations under Subclauses 8.3.3 and 8.4.5."									
"PSA 8.13*	Sanctions Unit: Prov Sum								
The provisional sum shall cover any sanction or bonus due as specified in subclause C3.3.3. The provisional sum shall be expended in accordance with Clause 6.6 of the Conditions of Contract."									
Add the following clauses for SMME related works and payment.									
"PSA 8.14" SMALL, MEDIUM and MICRO ENTEPRISES (SMME's) PORTION OF THE WORKS									
a) SMME Subcontract Works (Description)									
Provisional sums have been allowed in the BOQ for work packages reserved for work awarded to SMME subcontractors selected in consultation with the Employer. The sum paid shall be as certified by the Employer's Agent for work completed by the SMME Sub-Contractor(s).									
b) Preliminary and General and Profit for SMME Subcontractors on item PSA 8.14 (a) above									
A fixed 20% Preliminary and General will be applied to the sum of the EME Subcontract Work Packages. A further fixed 20% for Profit will be applied to the sum of the Preliminary and General and EME Work Packages.									
The calculation	The calculation of sub-items (a) and (b) above are explained below:								
Typical SMM	Typical SMME subcontract works package build-up:								
1. Deriving SMME Subcontract work package Sum using Contractors Tendered Rates									

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Remove the ___% profit from the Contractor's tendered rates breakdown. These rates, with quantities, will then be used to derive at an EME work package Sum.

2. SMME Preliminary and General and Profit Payment Items

The SMME work package Sum (calculated under 1.) to be subjected to Preliminary and General and Profit.

- 20% Preliminary and General of the package amount calculated under 1 above is added
- 20% Profit on top of the package amount that now includes the 20% P&G's is added

The Contractor shall tender a percentage in the item provided in Section 12 – SMME's in the Bill of Quantities, to cover all costs including but not limited to, management, attendance on SMME subcontractors, administration, transportation, contractual documentation, overheads, finance costs, risk and profit on the sum reserved for SMME subcontract works, including SMME Preliminary and General and Profit as determined under (a) and (b) above and for any additional SMME subcontracting packages that might be required in order to achieve the required percentage SMME participation goal as stipulated in the Contract Data.

"PSA 8.15" PROVISIONAL SUM FOR ACCREDITED TRAINING

Add the following payment items:

The Contractor will liaise with the Employer's Agent and the Community Liaison Officer (CLO) for the training requirements of targeted local labour (including local labour used by SMME's if applicable) and arrange for formal training with the local Department of Labour, or other accredited training service providers.

PSAB EMPLOYER'S AGENT'S OFFICE (SANS 1200AB)

PSAB 3 MATERIALS

PSAB 3.1 NAMEBOARDS

Add the following:-

Employer's nameboards shall be erected within one (1) month of the commencement of construction and shall be placed where ordered by the Employer's Agent. Any damage to these boards shall be repaired within 14 days of a written instruction received from the Employer's Agent. For details of the board refer to the Standard Drawings contained in this document.

Two Contractor's nameboards shall be erected in the area of the Works, at positions approved by the Employer's Agent, who may at any time order their removal if any objections are received.

The boards shall be manufactured from materials specified in Clause 3.1 of SANS 1200 AB.

All nameboards shall be removed 14 days prior to the date of the Final Approval Certificate.

PSAB 3.2 OFFICE BUILDING (S)

Delete the first sentence and substitute the following:

The Contractor shall supply and furnish one air-conditioned "Kwikjack" (6 m x 3 m) office, and one air-conditioned "Kwikjack" (9 m x 3.4 m) conference facility for conducting meetings.

Add to the Sub-clause:

In addition to the furnishings listed under sub-items (a) to (i), the following shall be provided and properly maintained:

- (j) electrical installation to include a light and two 15A plug points plus two adequately sized air conditioning units (for heating and cooling) for each unit
- (k) one refrigerator of at least 100 litre capacity
- (I) one kettle of at least 2 litre capacity
- (m) one tea set comprising six cups and saucers, six teaspoons, one teapot, one sugar bowl and one milk jug
- (n) covered parking for four vehicles (shared with Contractor)
- (o) un-covered parking space for two vehicles (shared with Contractor)
- (p) two "Barhold" or similar wall mounted racks each with 6 clamps suitable for hanging A0 sized drawings
- (q) one large meeting table

(r) ten additional chairs

The Contractor shall supply one (1) lockable toilet for the exclusive use of the Employer's Agent's staff.

PSAB 4 CONSTRUCTION EQUIPMENT

Add the following new Clauses:

PSAB 4.2 Covered Parking Bay

The Contractor shall also supply and maintain four corrugated iron (or similar approved) covered carports with closed sides and gravelled floor for the use of the Employers Agent's Representative and the Employer, shared with the Contractor.

PSAB 4.3 All other specified facilities

The Contractor will be required to supply the Employer's Agent's Representative and Site Staff with the following:

- i) Wi-Fi Internet Connection
- ii) Access to a photocopier and associated consumables

PSAB 5 CONSTRUCTION

PSAB 5.2 NAMEBOARDS

Replace the contents of this Clause with the following:

"The Contract Nameboards shall be erected within fourteen days of the Commencement Date and shall be placed where ordered. Any damage to this board shall be repaired within seven days of a written instruction issued by the Employer's Agent.

Further to the above the Contractor will not be allowed to erect more than two of his own nameboards in the area of the Works. The position of these shall be agreed to by the Employer's Agent. No payment will be made for the supply, erection or maintenance of the Contractor's nameboards and the Employer's Agent reserves the right to order the removal of the nameboards if not properly maintained.

All nameboards shall be removed within 7 days of the issue of the "Certificate of Completion".

PSAB 5.2 Employer's Agent's Office (Refer SANS 1921-1 Clause 4.14)

Add to the Sub-clause:

The toilet facilities provided for the sole use of the Employer's Agent or his representative(s), the Employer's inspectors, CLO and PSC shall be maintained in a hygienic and sanitary condition and shall be removed on completion of the Works. The facilities provided shall conform to the local health authority's requirements as applicable and the Contractor shall pay all sanitary fees and charges.

PSAB 5.5 SURVEY ASSISTANTS

Delete the first sentence and substitute the following:

A survey assistant will be required from time to time to assist the Employer's Agent Representative.

Add the following new clauses:

PSAB 5.6 SURVEY EQUIPMENT

Add new Sub-clause:

The Contractor shall provide the following survey equipment on the Site from the commencement to the completion of the Works:

- One automatic reading Employer's Agent's level plus tripod
- One levelling staff (5 m long, 1 cm graduations)
- One staff angle bubble
- One metal change-point for levelling
- One separate plumb-bob
- One spirit level (one metre long)
- One hammer (2 kg) with steel or wooden pegs as necessary
- One 50 m steel or glass fibre tape
- One 5, 0 m (or longer) retractable steel tape.

The equipment may be shared by arrangement between the Contractor and the Employer's Agent or his representative on Site. The Contractor shall keep the equipment continuously insured against any loss, damage, or breakage and he shall indemnify the Employer's Agent and the Employer against any claims in this regard. Upon completion of the Works the survey equipment as listed above shall revert to the Contractor.

The Contractor shall maintain the equipment in good working order and keep it clean until the completion of the Works.

PSAB 5.7 SITE INSTRUCTION BOOKS

The Employer's Agent shall supply a site instruction book for specific use on the Site. All instructions given by the Employer's Agent's Representative must be confirmed and countersigned by the Employer's Agent. The instruction shall be countersigned by the Contractor before implementation.

The Contractor shall supply a triplicate book for site correspondence and inspection requests to the Employer's Agent's Representative. Reasonable notice shall be allowed prior to inspections. All

inspections requests and approval/disapproval thereof shall be recorded by the Site staff in writing. All requests must be signed and dated by the Employer's Agent's Representative before implementation.

The Contractor in conjunction with the Employer's Agent must ensure that a suitable site quality record system is put in place to record that each section, or work item, complies with the relative works specification.

PSAB 8 MEASUREMENT AND PAYMENT

Delete the contents of this Clause. The appropriate measurement and payment clauses have been included under Clause 8 of SABS 1200 A and PSA.

PSC SITE CLEARANCE (SANS 1200C)

PSC 3 MATERIALS

PSC 3.1 DISPOSAL OF MATERIAL

Add the following:

Unless otherwise ordered by the Employer's Agent, the Contractor shall dispose of material resulting from clearing and demolition operations at a site to be determined by the Contractor. Such a site shall have the approval of the Employer's Agent, the Local Authority and the Environmental Control Officer.

PSC 5 CONSTRUCTION

PSC 5.1 AREAS TO BE CLEARED AND GRUBBED

Add the following:

"Notwithstanding the above, the Employer's Agent may, where particular areas are scarcely vegetated, order that the clearing and grubbing operation be totally or partially omitted, in which case no payment will be made under this section.

Payment will then only be made for excavation included under the relevant earthworks section.

PSC 5.3 CLEARING

Add the following new Sub-Clauses:

PSC 5.3.1 Restoration of Fences onto Servitude Boundary (Sub-Clause 5.3.1)

Where existing fencing is encroaching on the pipeline servitude, such fencing shall be removed prior to construction and re-erected to a condition no worse than that pertaining prior to the removal, on the formal cadastral boundary all as indicated on the respective land plans. For the period that the fence or wall is dismantled and not yet re-erected, the Contractor shall erect, at the end of each day's operations, a temporary fence to close the gap in the existing fence or wall and shall maintain security adequate to prevent use of the temporary fence as a point of access by unauthorised persons.

PSC 5.3.2 Temporary Fencing Closures (Sub-Clause 5.3.2)

Where the pipeline route crosses an existing fence or wall, a section of fencing or wall not exceeding 10,0 m in length may be removed temporarily during construction and thereafter reinstated to a condition no worse than the original condition as soon as the pipeline has been installed and backfilled in the immediate vicinity of the crossing. For the period while the existing fence or wall is dismantled, the Contractor shall erect, at the end of each day's operations, a temporary fence to close the gap in the existing fence or wall and shall maintain security adequate to prevent use of the temporary fence as a point of access by unauthorised persons.

PSC 5.3.3 Demarcation Fencing (Sub-Clause 5.3.3)

Demarcation of the pipeline construction servitude will be by means of wooden stakes. These stakes will be at least 1m high, painted white and placed at least every 15m on either side of the linear feature, in all areas where works are occurring. The stakes shall be moved as required as the project progresses

The Contractor shall also supply, install and maintain temporary fencing on both sides of the working area (servitude) and around the perimeter of all agreed additional working areas during construction for prevention of unauthorised access and shall remove on completion of the works. The fencing shall comprise 2m high Bonnox 4 x 4 Mesh fencing, Bonnox pattern 1972/4, with straining posts and straining wires as required and according to supplier's directions and with mesh spacing not exceeding 100mm in both the vertical and horizontal directions. Chevron tape shall be interwoven in a zig zag pattern from the top to the bottom of the fence thereby clearly marking off the working area.

Gates shall be provided by the Contractor at all points as required for construction access purposes. The Contractor shall be held responsible for the control of access at these gates at all times as well as to the worksite during removal and re-erection of fencing. No other opening in the fence shall be permitted and the Contractor shall be responsible for monitoring the fencing on a daily basis and repairing any such opening within the same day that it is detected. Notices in two official languages (English and isiXhosa) shall be attached to the fence where appropriate to indicate that the site is for personnel employed on the Contract only and that unauthorised entry is forbidden.

PSC 5.5 RECLEARING OF VEGETATION

Add the following:

"Except if otherwise agreed, where areas have to be recleared on the written instruction of the Employer's Agent, such re-clearing shall be carried out at the Contractor's own cost and the Contractor is advised therefore, not to clear areas at such an early stage that re-clearing may become necessary."

PSC 5.6 CONSERVATION OF TOPSOIL

Add the following:

"Conservation of topsoil, together with grass, roots and chipped mulch shall be applicable. Stockpiling of topsoil will be allowed on Site in specific locations indicated by the Employer's Agent. Topsoil shall not be stockpiled higher than 2,0m. Care shall be exercised to prevent the compaction of topsoil in any way especially by vehicles travelling over such material."

PSC 5.8 DEMOLITION OF STRUCTURES

Add the following new Sub-Clauses:

PSC 5.8.1 Removal and Re-Erection of Structures

Where the Contractor is directed to dismantle structures to facilitate construction and thereafter to re-erect the same structures, the structure shall be erected at the same location, or such other location as may be required by the owner within the same property, using the same or similar materials as those set aside when removing the structure. The acceptance of the work by the Employer's Agent and certification for payment shall be subject to the Contractor submitting to the

Employer's Agent documentary evidence of the owner's satisfaction that the re-erected structure the over-riding consideration being that it shall be in a condition no worse than that pertaining prior to its removal.

The tendered rates shall include for the provision of a detailed photographic and written record of the structures before dismantling commences and following re-erection.

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.1 BASIC PRINCIPLES

Add the following:

"The thickness of the layer that will unavoidably be stripped during clearing of vegetation will be taken as 100 mm. This implies that levels used in earthworks quantity calculations will be 100 mm lower than the original levels excluding stripping of topsoil to stockpile where applicable."

Add the following:

"Levels to be used for earthworks quantity calculations will be surveyed once the clearing operation has been completed."

PSC 8.1 Restoration of Fences to Servitude Boundary (New Sub-Clause)

Separate payment will be made for dealing with fences in the manner specified in PSC 5.3.1 above as scheduled (if not scheduled, such activities will be measured under Dayworks).

PSC 8.2 Temporary Fencing Closures (New Sub-Clause)

Separate payment will be made for dealing with fences in the manner specified in PSC 5.3.2 above including re-instatement as scheduled.

PSC 8.2 SCHEDULE ITEMS

PSC 8.2.1 Clear and Grub

Replace the first line with the following:

"The area designated by the Employer's Agent to be cleared and grubbed will be measured in square metre to the nearest metre or"

Delete "(except where 8.2.9 is applicable)" in the seventh line of this clause,

Add the following:

"The tendered rate shall also cover the cost of loading, transporting and disposing of vegetation, builder's rubble, and other unwanted debris encountered in road reserves or along service routes, at the designated spoil site described in the Scope of Works."

Add the following to subclause 8.2.5

"The rate shall further cover the cost to reinstate the fences to their original status, as well as for all new material in so doing"

"PSC 8.2.10 Remove Topsoil to Nominal Depth of 150mm, stockpile and maintain.... Unit: m³

Replace the heading and contents of sub subclause 8.2.10 with the following:

The rate shall cover the cost of removing the topsoil where ordered, together with such vegetation and small roots as may occur within the specified depth, for loading, transporting to designated area on site, for stockpiling, for maintaining and wetting (dust control) the stockpile for the full duration of the Contract.

Add the following clauses:

"PSC 8.2.11 Final Finishing and Cleaning up of Site...... Unit: Sum

The tendered sum shall include full compensation for the clearing, disposal of material, finishing, tidying and all other work required to finish and clean up the Site of the works and affected areas by removing excess earth, stones, boulders, debris and other waste material, by clearing stormwater inlets and outlets and pipe barrels, by clearing the surfacing of all dirt, mud and foreign material, and by neatly finishing off all junctions, intersections and kerbing.

All material resulting from the finishing operations shall be disposed of to a spoil site furnished by the Contractor.

The tendered rate shall make provision for the reinstatement of existing driveways to their original condition where these have been affected by the works, as these items will not be measured and paid for separately.

PSC 8.3 Removal and Re-Erection of Structures (New Sub-Clause)

Separate payment will be made for removing and re-erecting structures in the manner specified in PSC 5.8.1 above as scheduled and including for the costs of photographic and written records.

PSC 8.4 Demolition of Building Structures (New Sub-Clause)

Separate payment will be made for demolishing structures in the manner specified in PSC 5.8.2 above as scheduled and including for the cost of removal of rubble to an approved spoil site, backfilling any excavations and compacting to 90% mod AASHTO and shaping the ground level in line with the natural terrain.

PSC 8.5 Demarcation Fencing (New Sub-Clause)

Payment will be made per linear metre of temporary fencing installed in the manner specified in PSC 5.3.3 above, and the rate shall include for maintaining such fencing in good condition, including daily surveillance and repair, throughout the duration of construction and removal on completion of the works.

PSC 8.12 New Gates (complete as detailed on drawings) Unit : No

The unit of measurement shall be the number of each type and size of gate erected. A pair of gates shall be measured as one. The rate tendered shall cover the cost of all labour equipment and materials required to fabricate and install the gates complete as detailed on the drawings, including for mesh covering, hinges, locking chains, gate posts and corrosion protection."

PSD EARTHWORKS (SANS 1200D)

PSD1 SCOPE (Clause 1.1)

Where it is required that the earthworks be carried out using labour intensive methods, the first sentence shall read "This specification covers earthworks carried out by hand, or where so permitted in terms of the Project Specification, by restricted plant usage."

PSD2 INTERPRETATIONS

PSD 2.1 SUPPORTING SPECIFICATIONS

Replace sub-subclause 2.1.2 with the following:

"PSD 2.1.2 Any of other SABS 1200 Specifications may form part of the Contract Documents"

PSD 2.3 DEFINITION

Replace the word and the definition for "Borrow" with the following:

"Borrow material: Material, other than material obtained from excavations required for the Works, obtained from sources such as borrow pits or the authorised widening of excavations. 'Borrow' shall have a corresponding meaning."

Replace the definition for "Specified density" with the following:

"**Specified density**: The specified dry density expressed as a percentage of modified AASHTO dry density."

Replace the definition for "Stockpile" with the following:

"Stockpile (verb): The process of selecting and, when necessary, loading, transporting and off-loading material in a designated area for later use for a specific purpose."

Add the following definitions:

"Commercial Source: A source of material provided by the Contractor, not the Employer, and including any borrow pit, provided by the Contractor.

Fill: An embankment or terrace constructed of material obtained from excavations or borrow pits. In roads it includes the earthworks up to the underside of the selected subgrade level.

Fill (material): Material used for the construction of an embankment or terrace.

Roadbed: The natural in situ material on which the fill, or in the absence of fill, the pavement layers, are constructed.

Selected Fill: Material that complies with the requirements of 3.2.3 of SABS 1200 D and PSD 3.2.3."

PSD 3 MATERIALS

PSD 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

PSD 3.1.1 Method of Classifying

Add the following:

"The classification of material other than 'soft excavation' shall be agreed upon before excavation may commence.

The Contractor shall immediately inform the Employer's Agent if and when the nature of the material being excavated changes to such an extent that a new classification is warranted for further excavation. Failure on the part of the Contractor to advise the Employer's Agent in good time shall entitle the Employer's Agent to reclassify, at his discretion, such excavated material."

PSD 3.1.2 Classes of Excavation

Replace Sub-clauses 3.1.2 (a), (b) and (c) with the following:

All material encountered in any excavations for any purpose including restricted excavations will be classified as follows:

(a) Hard rock excavation

Hard rock excavation shall be excavation in material (including undecomposed boulders exceeding 0.17 cubic metres in individual volume) that cannot be efficiently removed without blasting, wedging and splitting, or hydraulic hammers.

This classification includes materials such as:

- solid unfractured rock occurring in bulk
- solid ledges thicker than 200mm
- igneous rock intrusions
- · cemented sedimentary rocks.

(b) Soft excavation

Any material which can be removed by bulldozers or backhoes, shall be classified as soft excavation.

Soft excavation shall be material not falling into the category of hard rock excavation.

PSD 3.2.3 Material Suitable for Backfill or Fill against Structures

Replace the contents of this sub-subclause with the following:

"Material used for backfill behind structures shall generally be the material excavated, subject to the following conditions:

- (a) The material shall not contain an excessive number of stones retained on a 50 mm sieve; and
- (b) The material shall not contain large clay lumps that do not break up under the action of the compaction equipment; and
 - (c) The liquid limit of the material shall not exceed 40, neither shall the PI exceed 18.
 - (d) The minimum modified AASHTO density shall be 93%."

"PSD 3.2.4 Material Suitable for Sand Media in Sludge Drying Bed

The material shall comply with the Guidelines for sludge drying beds with the effective size or d_{10} size and uniformity coefficient (UC = d_{60}/d_{10}) as indicated below:

- Fine sand $-d_{10} = 0.2 0.3$; UC<4
- Medium sand $-d_{10} = 0.5 0.7$; UC=4
- Bricks NFX burnt clay masonry units complying with SANS 227 complete with holes."

"PSD 3.2.5 HDPE Geomembrane Sheeting

The high density polyethylene sheeting to be used shall have a nominal thickness of 1,5mm and shall comply with SANS 1526-2003. Only virgin raw materials shall be used in the manufacture of the sheeting and all the material for a particular section shall originate from a single manufacturer. The sheeting shall further be manufactured by an approved manufacturer.

The sheeting used shall further comply with all physical, thermal, mechanical and ageing properties specified by the manufacturer and shall be homogenous, free from blisters, bubbles, pinholes, embedded adventitious contaminants and ragged edges."

"PSD 3.2.6 Materials for Underlining to Geomembrane Sheeting

The materials to be used for the underlining to the geomembrane sheeting shall be 400g/m² or similar approved."

PSD 3.3 SELECTION

PSD 3.3.1 General

Replace the second paragraph with the following:

"The Contractor shall deal selectively with materials from all excavations to ensure that no acceptable backfill or bedding material is contaminated by material unfit for use. No additional payment shall be made in this regard and all costs related to the above selection process shall be included in the applicable payment items. Should useful material be contaminated to such an extent that it is regarded as unfit for use the Contractor shall at his own cost dispose of this material and replace it with material of an equivalent standard to the acceptable in situ material."

Add the following sub-subclause:

PSD 3.3.3 Selection in borrow pits and excavations

Approval of a borrow area for a certain purpose does not necessarily mean that all the material in that area is suitable for the specified purpose. What it does mean is that the borrow area contains some suitable material. The onus shall rest on the Contractor to ensure that only material that is indeed suitable is removed and used for the specified purpose.

When the Contractor has to select excavated material for a specific purpose, the above provisions relating to borrow areas shall apply *mutatis mutandis* to excavations.

The Contractor shall not waste or contaminate material that has been selected for a specific purpose."

PSD4 PLANT

PSD 4.4 DETECTOR

Replace the contents of subclause 4.4 with the following:

"The Contractor shall, for the purposes of detecting and locating underground services in accordance with the provisions of Subclause 5.4 of SABS 1200 A and sub-subclause 5.1.2 of SABS 1200 D, at its own cost, provide and use detecting equipment which is suitable for the detection of underground cables and pipes."

PSD5 CONSTRUCTION

PSD 5.1 PRECAUTIONS

PSD 5.1.1 Safety

PSD 5.1.1.1 Barricading and Lighting

Replace "Machinery and Occupational Safety Act, 1983 (Act 6 of 1983)" with "Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Construction Regulations 2014".

PSD 5.1.1.2 Safeguarding of Excavation

Replace "Machinery and Occupational Safety Act" with "Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Construction Regulations 2014".

Add the following to paragraph (b) (1):

"Payment for supporting the sides of excavations and trenches shall be deemed to be included in the rates tendered for excavations. No separate payment will be made in this regard and it will be the Contractor's responsibility to ensure the safety and stability of all excavations.

Where trenches have to be widened to accommodate manholes, junction boxes, etc., the cost of supporting the vertical sides of such additional excavations will be deemed to be included in the rates tendered for excavation."

Add the following to paragraph (b) (2):

"The slope of the sides of an excavation or trench may never be steeper than 60° to the horizontal and all costs incurred to slope the sides of an excavation or trench will, irrespective of the angle of the slope, be deemed to be included in the rates quoted for excavation."

PSD 5.1.1.3 Explosives

Replace the contents of this sub-subclause with the following:

"The use of explosives is prohibited on this Contract."

PSD 5.1.2 Existing Services

PSD 5.1.2.2 Detection, Location and Exposure

Replace the contents of sub-subclause 5.1.2.2 with the following:

"The exposure by the Contractor of underground services, as required in terms of Subclause 5.4 of SABS 1200 A (as amended) shall be carried out by careful hand excavation at such positions and to such dimensions as are agreed to by the Employer's Agent.

Unless otherwise instructed or agreed by the Employer's Agent, no service shall be left exposed after its exact position has been determined and all excavations carried out for the purposes of exposing underground services shall be promptly backfilled and compacted to the following densities:

(a) In roadways : 95% Mod

AASHTO density; and

(b) In all other areas : 93% Mod

AASHTO density.

Where hand excavations to expose underground services have to be carried out in roadways, the Contractor shall reinstate the road layerworks in accordance with the provisions of Subclause 5.9 of SABS 1200DB.

Payment in respect of the reinstatement of layerworks in roadways will be made in accordance with Subclause 8.3.6.1 of SABS 1200DB (as amended).

PSD 5.1.2.3 Protection of Cables

Replace sub-subclause 5.1.2.3 with the following:

"PSD 5.1.2.3 Protection During Construction

Further to the requirements of Subclause 5.4.2 of SABS 1200A (as amended), major excavating equipment and other Plant shall not be operated dangerously close to Known Services. Where necessary, excavation in close proximity to Known Services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional

payment will apply to such more difficult work.

Should any service not being a Known Service be discovered or encountered during the course of the Contract, the Contractor shall, in addition to complying with the requirements of Subclause 5.4.2 of SABS 1200A (as amended), immediately notify the Employer's Agent thereof and implement such measures as will prevent damage of such service or, if it was damaged in the course of discovery, will prevent and minimise the occurrence of any further damage occurring."

PSD 5.1.2.4 Negligence

Delete sub-subclause 5.1.2.4

PSD 5.1.3 Stormwater and Groundwater

Add the following:

"The Contractor shall, where applicable and at the earliest practicable opportunity, install the permanent drainage specified or shown on the Drawings and shall at his own cost provide the temporary drainage required to protect the Works."

PSD 5.1.6 Road Traffic Control

Delete the contents of sub-subclause 5.1.6 and replace with the following:

"The provisions of PSA 5.11 shall apply as applicable. Where the work affects the operation or safety of public road traffic, vehicular and/or pedestrians in addition, to complying with the requirements of 5.1.1.1, the Contractor shall provide, erect and maintain traffic signs, personnel and equipment that conform to the requirements, layout and guidelines of the "South African Road Traffic Signs Manual", as well as the Site Manual entitled "Safety at Roadworks in Urban Areas" as published by the Department of Transport, in number and in layout, as shown in these manuals.

Where necessary and as shown in these manuals, warning lights, an adequate number of flagmen and appropriate barricades, clearly visible to oncoming traffic at all times of the day and night shall be provided. If steel drums are used for this purpose, they shall be ballasted with soil, sand or stones and the outside shall be whitewashed and provided with retro-reflective material (in the case of tape, of minimum width 10mm), red on the left-hand side facing oncoming traffic and white on the right-hand side. The drums shall be maintained in a clean and effective condition and no stones shall be placed on them.

No direct payment will be made for the cost of providing and complying to the aforementioned. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

PSD 5.2 METHOD AND PROCEDURES

PSD 5.2.1 Site Preparation

PSD 5.2.1.2 Conservation of Topsoil

Add the following to sub-subclause 5.2.1.2:

"Topsoil shall not be stockpiled higher than 2,0m. Care shall be exercised to prevent the compaction of topsoil in any way especially by vehicles travelling over such material."

PSD 5.2.2 Excavation

PSD 5.2.2.1. (b) Excavation for General Earthworks and for Structures

Add the following to this Clause:

"When the nature of the material precludes the above procedure, additional excavations shall be carried out to provide working space for the erection of formwork. In general, payment will be made for excavating a working width of 600 mm, but the Contractor may excavate a greater working width at no additional cost to the Employer."

PSD 5.2.2.1. (e) Excavation for General Earthworks and for Structures

Add the following to this Clause:

"Where excavations have been carried below the authorised levels, the Contractor shall backfill such excavations to the correct level with approved gravel compacted to 90% of modified AASHTO density or to the density of the surrounding material, whichever is the higher density.

Where excavations for structures have been carried out in hard material, the Employer's Agent may direct that over-excavation be backfilled with weak concrete if there is a danger of settlement or differential settlement of the foundations.

Where the sides of excavations against which concrete is to be cast have been over-excavated or have collapsed partially, the Contractor shall retrim the excavations if necessary and, unless other remedial measures are agreed to by the Employer's Agent, shall cast the concrete for the structure, including the additional concrete that may be required as a result of the over-excavation or partial collapse. The cost of the additional concrete or remedial measures shall be for the Contractor's account."

PSD 5.2.2.3 Disposal

"The Contractor shall, provide all necessary spoil sites for the spoiling of all surplus and unsuitable materials and shall make the necessary arrangements with the owner of the site where the material is disposed of, and pay all charges and levies as may be applicable for the use of such spoil sites.

Every spoil site provided by the Contractor shall be approved by the local authority in whose area it is located, and the spoiling shall comply with the applicable statutory and municipal regulations as well as the requirements of the owner of the spoil site.

Payment to the Contractor in respect of locating and making arrangements for suitable spoil sites and spoiling material at such sites will be made in accordance with the provisions of Sub-clause PSD 8.3.17."

Add the following sub-subclause in subclause 5.2.2:

"PSD 5.2.2.4 Selection and Stockpiling

Approval or designation of the material in a particular borrow pit or excavation for a particular purpose does not imply that all the material in the borrow pit or excavation is suitable for the particular purpose for which the said approval or designation relates, nor that all material in the borrow pit or source should be used for the particular purpose. The Contractor shall select suitable material from that borrow pit or source, discard unsuitable material and reserve material for other purposes as necessary.

The Contractor shall organise and carry out its operations in such a manner as will prevent the contamination of suitable embankment and backfill material with unsuitable materials. Any excavated material which becomes, in the Employer's Agent opinion, unsuitable for use in embankments or backfill as a result of contamination, shall be disposed of in a manner acceptable to the Employer's Agent and shall be replaced by the Contractor with materials acceptable to the Employer's Agent, all at the Contractor's cost.

When required, or when ordered by the Employer's Agent, material shall be stockpiled for later use. The additional costs of stockpiling material shall be paid to the Contractor in accordance with the provisions of Subclause PSD 8.3.14."

PSD 5.2.3 Placing and Compaction

PSD 5.2.3.1 Embankments

Omit "98% in the case of non-cohesive soil" and substitute with "100% in the case of non-cohesive soil".

"PSD 5.2.3.3 the material of each area of fill shall, unless otherwise approved, be deposited in layers of thickness, before compaction, not exceeding 150 mm. The material shall be spread to form a layer that is approximately uniform thickness, and graded over the whole area of the fill site.

Each layer shall be compacted at OMC to a density of at least 93% of modified AASHTO density in the case of cohesive soil or 100% in the case of non-cohesive soil. Should the material be too wet, owing to rain or any other cause, it shall be harrowed and allowed to dry out to the correct moisture content before compaction is undertaken.

The contractor shall ensure that stormwater will at all times be discharged uniformly over the full fill area or through specially prepared and protected drainage ditches to prevent scouring of the slopes."

"PSD 5.2.3.4 Backfilling Over-Excavation and Overbreak

The material to be used shall comply with 3.2.1, except that the maximum particle size shall not exceed $^2/_3$ of the thickness of the layer being placed and shall be compacted to at least 93% of modified AASHTO maximum density."

PSD 5.2.4 Finishing

PSD 5.2.4.2 Topsoiling

Replace the last sentence with:

"The final thickness of the topsoil shall be 150mm or as directed by the Employer's Agent or as

required on the Drawings."

PSD 5.2.4.2 Grass and Vegetation

Add the following sub-subclauses:

"Hydroseeding

The following materials shall be used in hydroseeding:

(a) Fertilizer

The type of fertilizer to be used shall be 2:3:2 (22 + 2N) and superphosphate.

(b) Grass seed

The following seed mixture at an application rate of not less than 45 kg of seed mixture per hectare, shall be used for tendering purposes, the final mix proportions shall be given to the successful Contractor:

10 kg		Cynodon dactylon
10 kg		Festuca rubra
6 kg		Lolium multiflorum
6 kg		Agrostis tenius
3 kg		Trifolium subterranean
4 kg		Dactylis glomerata
6 kg	-	Serredella
45 kg	Per hectare	

Cellulose pulp shall be added to the hydroseeding mix at a rate of 25 kg of pulp per kiloliter of water used, except where otherwise instructed in respect of flat slopes.

Hydroseeding shall be carried out with an approved hydroseeding machine at a rate of application of not less than 45 kg of seed mixture per hectare, unless otherwise specified in the Project Specifications.

If the Contract starting time and program is such that the work cannot be executed within the Contract period, then the work shall be executed during the 12 month maintenance period.

Sods

(a) Grass sods

Grass sods shall be 100% Cynodon dactylon. It shall be vigorous, well rooted, healthy turf, free from disease, insect pests, weeds, other grasses, stones and other harmful matter.

- (b) Cutting, lifting and handling of grass sods
 - (1) Prior to cutting and lifting, the sod shall be inspected and approved in its original location by the Landscape Architect. Under no circumstances shall any sodding work be done unless weather and soil conditions are suitable, as determined by the Landscape Architect.
 - (2) Sods shall be cut by an approved mechanical sod cutter and cut to a thickness of not more than 40 mm nor less than 25 mm. Sod pieces shall be cut to 0,5 m² in area. The width shall be 300 mm or 450 mm.
 - (3) Sod shall be rolled or folded prior to lifting. Handling of sods shall be done in such a manner that will prevent tearing, breaking, drying or any other damage. All damaged pieces of sod shall be rejected by the Landscape Architect.
 - (4) Sods shall be installed in place on the Site not more than 48 hours after cutting.

(c) Sodding procedures

(1) Rolling: Rolling shall be done in 2 (two) directions perpendicular to each other. The roller shall be a hand roller weighing not more than 90 kg or less than 70 kg. Roll

in such a manner so as to eliminate the necessity of walking on the finished grade.

- (2) After rolling, check finished grading for depressions, lumps, or any other irregularities. Repair and re-roll all areas as directed by the Landscape Architect.
- (3) Moisten soil surface immediately before sod laying, as directed by the Landscape Architect. Use a fine spray that will not cause a disturbance of the finished surface.
- (4) Lay sod parallel to the direction of the slope and in a manner that will permit joints to alternate.
- (5) Fit sod pieces together tightly so that no joint is visible, and tamp sod firmly and evenly by hand. Peg sod where slope is greater than 1:3.
- (6) During sod laying operation, protect all sods as it is laid and finished, from depressions, lumps or any other irregularities in the finished surface.

- (7) After sodding is complete and has been approved, roll in the same manner as described above and to the satisfaction of the Landscape Architect.
- (8) Water all sodded areas immediately after final rolling with a fine spray to a depth of 100 mm.

(d) Scope of maintenance work

- (1) Maintenance on the grassing shall begin when the planting commences and shall continue until Final Acceptance (three months after issue of Take-Over Certificate).
- (2) Maintenance shall consist of mowing, watering, weeding, fertilising, disease and insect pest control, aerating, replacement of unacceptable material, topdressing, and any other procedure consistent with good horticultural practice.
- (3) Maintenance personnel shall visit the Site on a minimum weekly basis during the three month maintenance period. A proposed maintenance schedule shall be submitted by the Contractor to the Landscape Architect for approval. Prior to any maintenance work commencing, all defects that may become apparent during this period shall be thoroughly investigated and rectified by the Contractor to the Landscape Architect's satisfaction.
- (4) The Contractor shall be responsible for the use of all materials, labour and equipment, and any injury to plant material caused by such material, labour and equipment, shall be corrected and repaired by the Contractor at no additional expense to the Employer.

(e) Establishment and maintenance of the grass

- (1) All planted or sodded areas shall be adequately watered at frequent and regular intervals in order to ensure proper growth until the area has established an acceptable cover and, thereafter, until the beginning of the Maintenance Period. The amount and frequency of watering shall be subject to the Landscape Architect's approval.
- (2) The Contractor shall mow the grass on all areas that have been grassed to maintain an average height of 30 mm or when instructed by the Landscape Architect, until the end of the Maintenance Period. All grass cuttings shall be collected and disposed of if so directed by the Landscape Architect. Weeds shall be controlled by means of pulling, cutting, or any other approved means.
- (3) The Contractor shall top dress areas planted with sods once during the Maintenance Period with approved topsoil mix and fertilizer appropriate to negate any deficiency, according to the growth and colour of the

grass.

- (4) Any bare patches where the plant material has not taken, or where it has been damaged, shall be recultivated, planted or sodded at the Contractor's own expense.
- (5) All plant areas shall have acceptable cover as defined below at the end of the Maintenance Period.
- (6) An acceptable vegetation cover shall mean that no less than 75% of the area planted shall be covered and that there shall be no bare patches of more than 500 mm in maximum dimension.
- (7) The Maintenance Period on the grassing shall last three (3) months.

(f) Weeding

Keep all planting areas free from weeds and undesirable grasses, by a method and materials approved by the Landscape Architect.

(g) Topdressing

All lawn areas shall be top dressed as necessary, to remove any minor depressions and visible joints in the grass sods. Topdressing shall be as previously specified."

PSD<u>5.2.5 Transport for Earthworks</u>

Replace the contents of sub-subclause 5.2.5 with the following:

"The transport of all excavated materials, irrespective of the distance and source, shall be deemed to be free haul, the cost of which is included in the Contractor's tendered rates and prices for the excavation of the materials. No separate compensation shall apply for the transportation of excavated materials."

PSD6 TOLERANCES

PSD6.1 POSITION, DIMENSIONS, LEVELS, ETC.

Add the following:

PSD6.1 (c) Bulk Earthworks

The tolerances applicable to excavations for structural foundations (degree of accuracy II), as specified in Subclause 6.1(a) shall apply, provided no ponding areas or adverse grades result."

PSD7 TESTING

PSD7.2 TAKING AND TESTING OF SAMPLES

Replace the contents of this subclause with the following:

"The Contractor shall arrange with the approved independent laboratory engaged by the Contractor in terms of subclause C3.4.9.5, to carry out sufficient tests on a regular basis as agreed between it and the Employer's Agent to determine whether the degree of compaction, and, where applicable, the quality of materials used, comply with the Specifications and shall submit the results of these tests to the Employer's Agent in a form approved by him.

The compaction requirements for fills shall be deemed complied with, when at least 75% of the drydensity tests on any lot show values equal to or above the specified density and when no single value is more than five percentage points below the specified value."

PSD8 MEASUREMENT AND PAYMENT

PSD8.3 SCHEDULE ITEMS

PSD8.3.1 Site Preparation

Replace sub-subclause 8.3.1.1 and 8.3.1.2 with the following:

"Where Site preparation such as clearing, grubbing, the removal of large trees or the removal and stockpiling of topsoil is required, the provisions and scheduled items of SABS 1200 C shall apply."

PSD8.3.2 Bulk Excavation

Replace the contents of this clause with the following:

PSD8.3.2.1 Excavate in all materials and use for embankment or backfill or dispose as ordered

Unit: m³

The unit of measurement shall be the cubic metre of material excavated, measured in accordance with Subclause 8.2 of SABS 1200D, of surplus and/or unsuitable material disposed of, on the instruction of the Employer's Agent, at a spoil site on site or spoil sites provided by the Employer as described in the Scope of Works.

The tendered rates shall cover the cost of complying with all the precautions required in terms of Subclause 5.1 of SABS 1200D (as amended), in addition to the cost of excavation, basic selection, loading, transporting regardless of the distance involved, off-loading at the spoil site, maintaining and finishing the spoil site, all in accordance with the specifications. No overhaul shall apply.

PSD8.3.2.2 Extra over items PSD 8.3.2.1 for:

(1) Hard rock excavation Unit: m³

The rate shall cover the additional cost of the operations enumerated in subclauses 8.3.2.1 and 8.3.2.(c) for any portion of the excavation that is classified as hard rock as applicable.

NOTE:

The rates tendered for Subclauses 8.3.2.1 and 8.3.2.2 above shall also provide for backfilling any over-excavation or overbreak in accordance with the requirements of PSD 5.2.3.3.

The unit of measurement shall be the cubic metre of soilcrete placed on the Employer's Agent instructions in accordance with Sub-clause PSDB 3.5(d), measured in place according to the authorised dimensions."

PSD8.3.3 Restricted Excavation

Replace the heading of subclause 8.3.3(a) and the contents of the first two paragraphs with the following:

Separate items will be scheduled for each category of excavation and for each class or manner of disposal of excavated material.

All restricted excavation shall be measured by volume.

Replace "in 5.2.2.1 – 5.2.2.3 (inclusive)" at the end of subclause (a) with "in Clauses 5.2.2.1 to 5.2.2.4 (inclusive)."

Delete Clause 8.3.3(b) (1) as well as any reference to intermediate excavation in subclause (b). For the purposes of measurement and payment, excavation other than hard rock and boulder excavation will not be separately classified (refer PSD 3.1.2)."

Add the following subclauses at the end of clause 8.3.3:

This item shall apply to hand excavation ordered by the Employer's Agent or when the Employer's Agent considers that, owing to circumstances, excavation by mechanical excavators is not practicable. It shall not apply to hand excavation for trimming or finishing an excavation made by mechanical means.

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.3(a), for carrying out restricted excavation by hand tools where ordered by the Employer's Agent.

The volume shall be computed from the dimensions specified, shown on the drawings, or ordered by the Employer's Agent.

Note:

Normal handwork required to clean and trim the sides and bottoms of mechanically completed restricted excavations will not qualify for payment in terms of this Clause.

PSD8.3.3(d) Extra over 8.3.3(a) for soilcrete backfill where directed by the Employer's Agent Unit: m³

The unit of measurement shall be the cubic metre of soilcrete placed on the Employer's Agent instructions in accordance with Sub-clause PSDB 3.5(d), measured in place according to the authorised dimensions."

PSD8.3.4 Importing of Materials

Delete subitem (a) of 8.3.4

PSD8.3.6 Overhaul

Add the following:

"No overhaul shall apply to material from commercial sources or to material disposed of on sites provided by the Contractor or disposed by other means employed by the Contractor."

PSD8.3.8 Existing Services

PSD8.3.8.1 Location

Replace item 8.3.8.1 with the following:

"PSD8.3.8.1 Hand excavation for locating and exposing existing services:

(a) In roadways...... Unit: m³

(b) In all other areas.... Unit: m³

The unit of measurement shall be the cubic metre of material excavated, measured in place according to the authorised or actual dimensions of the excavation, whichever is the lesser.

The tendered rates shall cover the cost of excavating in all materials by means of hand tools within authorised dimensions and at locations approved by the Employer's Agent in accordance with the requirements of subclause PSA 5.4.1 for all precautionary measures necessary to protect the services from damage during excavation and backfilling, and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 90% of the modified AASHTO density.

The tendered rate for hand excavation in roadways shall include compensation for compacting excavated or selected backfill material to 93% of modified AASHTO density. Reinstating layerworks and surfacing shall be measured and paid for in terms of SABS 1200 DB.

The tendered rates shall also include for keeping excavations safe, for dealing with surface and subsurface water, for removing surplus excavated material from the site, for transporting all material, and for supplying adequate supervision during both excavation and backfilling operations."

PSD8.3.10 Topsoiling

Change the contents of this item with the following:

"The tendered rate shall include loading of the topsoil from stockpiles, transporting it regardless of distance involved, and off-loading, spreading, shaping and lightly compacting the topsoil."

PSD8.3.11 Grassing or Other Vegetation Cover

Replace the entire contents with the following:

The tendered rate shall include full compensation for planting and maintenance in accordance with the requirements of PSD 5.2.4.3.

PSD8.3.11.2 <u>Hydroseeding</u> Unit: m²

The tendered rate shall include full compensation for the seed mixture, for furnishing cellulose pulp and mixing it with seed and water and applying the mixture, watering, weeding, re-hydroseeding bare patches, and for any other work except mowing, which may be necessary for establishing an acceptable cover and maintaining the grass for a period of three months after an acceptable cover has been established.

Add the following new clauses:

PSD8.3.11.2 Extra over items 8.3.2.1 and PSD 8.3.3 for temporary stockpiling Unit: m³

The unit of measurement shall be the cubic metre of material from necessary excavations, temporarily stockpiled by the Contractor on the instructions of the Employer's Agent, before being used in embankments, fills or backfill.

Measurements shall be taken in place in compacted embankment, fills or backfill as the case may be.

The tendered rate shall include for the costs, additional to those provided for in PSD 8.3.2.1 and PSD 8.3.3 of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting regardless of the distance involved from the stockpile.

Payments to the Contractor under this item will only be made in respect of that material stockpiled on the instructions of the Employer's Agent (which instruction shall state specifically that payments for such stockpiling will be paid for under this item) and no payments will be made to the Contractor under this item in respect of materials stockpiled by the Contractor on their own volition, nor for materials necessarily stockpiled by the Contractor in consequence of the sequence of operations adopted by them in the course of executing the Works, whether such stockpiling was avoidable or otherwise."

"PSD8.3.14 Extra over items 8.3.2.1 and PSD 8.3.3 for temporary stockpiling Unit: m³

The unit of measurement shall be the cubic metre of material from necessary excavations, temporarily stockpiled by the Contractor on the instructions of the Employer's Agent, before being used in embankments, fills or backfill.

Measurements shall be taken in place in compacted embankment, fills or backfill as the case may be.

The tendered rate shall include for the costs, additional to those provided for in PSD 8.3.2.1 and

PSD 8.3.3 of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting regardless of the distance involved from the stockpile.

Payments to the Contractor under this item will only be made in respect of that material stockpiled on the instructions of the Employer's Agent (which instruction shall state specifically that payments for such stockpiling will be paid for under this item) and no payments will be made to the Contractor under this item in respect of materials stockpiled by the Contractor on their own volition, nor for materials necessarily stockpiled by the Contractor in consequence of the sequence of operations adopted by them in the course of executing the Works, whether such stockpiling was avoidable or otherwise."

<u>"PSD8.3.16</u> <u>Excavate and dispose of unsuitable material from sides or bottom of restricted</u> foundations, footings, trenches and stormwater drains where ordered and replace with:

- (a) Selected material complying with subclause 3.2.2 of SABS 1200 ME compacted to 90% of modified AASHTO maximum density

 Unit: m³
 - (b) 15MPa/19 concrete Unit:m³

Separate items will be scheduled for each type of excavation, source of backfill material and manner of backfill.

The rates tendered shall cover the cost of excavating the unsuitable material to the extend ordered by the Employer's Agent, disposing of the material at a spoil site provided by the Contractor and subsequent backfilling of the excavation using selected material or concrete as ordered.

NOTE:

The work required to construct the selected layer beneath areas to be concrete lined will be measured for payment under (a) as applicable. The unit of measurement shall be the cubic metre of selected material placed and compacted. Any excavation required to accommodate the concrete lining will be deemed to be covered by subclause 8.3.4 of SABS 1200 DM."

PSD8.3.17 Extra over items PSD 8.3.2 and PSD 8.3.3 for disposing of spoil material on a site provided by the Contractor Unit: m³

The unit of measurement shall be the cubic metre, measured in accordance with Sub-clause 8.2 of SABS 1200 D, of surplus and/or unsuitable material disposed of, on the instruction of the Employer's Agent, at a spoil site or spoil sites provided by the Contractor.

The tendered rate shall include full compensation for the additional cost of providing a spoil site or other means of disposing of surplus spoil material, for transporting the material regardless of the distance involved, for acceptance charges for such material and for all other incidental costs to dispose of the spoil material."

PSD8.3.18 Media for fill inside sludge drying beds Unit: m³ and m² and m and No

The unit of measurement shall be the cubic metre or square metre or metre or number, measured in accordance with Sub-clause 8.2 of SABS 1200 D, of media used for fill inside sludge drying beds, on the instruction of the Employer's agent, complying with subclause PSD 3.2.4 and PSD 3.2.5.

The tendered rate shall include full compensation and shall cover the cost of all labour, equipment, materials and incidentals required to install the media inside the sludge drying beds.

Different material will be scheduled for the different media installed."

PSDB EARTHWORKS (PIPE TRENCHES) (SANS 1200DB)

PSDB 3 MATERIAL

PSDB3.1 CLASSES OF EXCAVATION

Delete the contents of Clause 3.1 and replace with the following:

"The classification shall be as described in PSD 3.1".

PSDB3.5 BACKFILL MATERIAL

Replace the contents of Subclause (b) and add Subclauses (c) and (d) as follows:

"In areas subject to road traffic loads which shall be held to extend 2,5m either side of the road centre line, as well as beneath concrete lined channels, backfill shall comply with the requirements of PSME 3.2.2

Add the following paragraphs to subclause 3.5:

"(c) Cement-stabilised backfilling

Backfilling shall, where directed by the Employer's Agent, be stabilised with 5% cement. The aggregate shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed with 5% cement and shall be compacted in layers of 100 mm thick to 90% of modified AASHTO density.

(d) Soilcrete backfilling

The aggregate for soilcrete shall be mixed with 5% cement and shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed in a concrete mixer with the cement and enough water to acquire a consistency that allows the mixture to be placed with vibrators to fill all voids between the pipe and the sides of the trench. Shuttering shall be used where necessary."

PSDB3.7 SELECTION

Replace the words "if he so wishes" in the first line of the second paragraph with the words "at his own cost".

Add the following to subclause 3.7:

"Notwithstanding anything to the contrary stated in this subclause the Contractor shall, where so ordered, selectively stockpile topsoil, material complying with 3.5, as well as road materials for reuse in terms of 5.9."

PSDB 5 CONSTRUCTION

PSDB5.2 MINIMUM BASE WIDTHS

Notwithstanding the provisions of this Subclause, the minimum base widths for the various trenches shall be as shown on the Drawings.

PSDB5.4 EXCAVATION

Add the following:

"Except where otherwise specified, trenches shall be of such a depth that the minimum cover over the pipes shall be 700mm, except at road-crossings, where the minimum cover shall be 1000 mm.

No trench may be left open over the period 16 December to 8 January inclusive.

Where trenches have to be excavated under this Contract adjacent to live services / other services laid under other contracts, it may be necessary to shore trenches to prevent damage to the live services / other services. It will be the responsibility of the Contractor to ensure that services constructed under other contracts of live services are not damaged by his operations during the Contract."

PSDB5.6 BACKFILL

PSDB5.6.1 General

Replace the first sentence with the following:

"Backfilling of pipe trenches may only commence after the pipe has been laid, firmly bedded in the specified cradle, the blanket placed and compacted as specified and after the pipe has been tested in terms of Clause 7 of SABS 1200 L."

PSDB5.6.2 Material for Backfilling

Replace the last paragraph of this Clause "In areas.....backfill" with the following:

"The material for backfilling in areas subject to road traffic loads shall comply with PSDB 3.5."

PSDB5.6.3 Disposal of Soft Excavation Material

Replace the words "unless otherwise required in the project specification." at the end of this Subclause with:

"or to spoil in accordance with the requirements of PSD 5.2.2.3 and Subclause 5.2.2.3 of SABS 1200 D, as instructed by the Employer's Agent."

PSDB5.6.6 Completion of Backfilling

Add the following:

"If in the opinion of the Employer's Agent insufficient progress is being made with the backfilling of trenches, the Employer's Agent will be entitled to order that no further excavation takes place until the backfilling operation has caught up."

PSDB5.7 COMPACTION

PSDB5.7.1 <u>Areas not Subject to Traffic Loads</u>

Add the following sentence:

"All non-cohesive material shall be compacted to 100% of modified AASHTO maximum density."

Replace the heading and contents of subclause 5.7.2 with the following:

PSDB5.7.2 <u>Areas Subject to Traffic Loads and Beneath Concrete Lined Walkways, Cycle Paths and Stormwater Channels:</u>

In areas subject to traffic loads and beneath concrete lined walkways, cycle paths and stormwater channels, trenches shall be backfilled from the top of the bedding to the extent scheduled below in layers of thickness not exceeding 150mm after compaction, and the material shall be compacted to 95% of modified AASHTO maximum density.

TRENCH DESCRIPTION	EXTENT OF BACKFILL					
Trenches beneath roadways to be constructed under the contract	Up to designated level of underside of layerworks					
Trenches beneath concrete lined walkways, cycle paths and stormwater channels	Up to designated level of underside of concrete lining					

PSDB 8 MEASUREMENT AND PAYMENT

PSDB8.1.1 Replace "along the route of the pipeline" in the third line of Clause 8.1.1 with "as specified in PSDB 5.6.3".

Replace the contents of subclause 8.2.4 with the following:

"No separate items will be measured for shoring. Refer to Item PSD 5.1.1.2 in this regard."

"PSDB8.2 If payment in terms of PSA 8.8.4 has been made to expose an existing service and the excavation involved falls within a proposed trench, the quantity measured for trench excavation shall be reduced accordingly."

PSDB 8.3 Schedule Items

PSDB 8.3.2 Excavation

(a)	Excavate	in a	all_	materials	for	trenches,	backfill,	compact	and	dispose	of	surplus	material
												Unit:	m or m ³

Replace the first sentence with the following:

"Items will be provided for various trench widths as specified and detailed on the Drawings and various depths in increments as specified in the Bill of Quantities."

Add the following to Clause (a):

"The rate tendered shall also cover the cost of complying with PSDB 3.5, as well as the cost of any disruption or delay in complying with PSDB 5.4 and PSL 5.1.4.

Delete Clause 8.3.2 (b)(1) as well as any reference to intermediate excavation in Clause (b). For the purpose of measurement and payment, excavation other than hard rock excavation will not be separately classified (refer PSDB 3.1).

Add the following new sub-items in 8.3.2 (b):

"(3) Hand excavation where ordered Unit: m³

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2(a), for carrying out, where ordered by the Employer's Agent and up to a depth of 1,0metre, trench excavation by hand as well as for any inconveniences related to the continuation with machines across and over hand-excavated trenches.

The volume shall be computed from the dimensions specified, shown on the Drawings or ordered by the Employer's Agent.

Normal handwork required to clean and trim the sides and bottoms or mechanically excavated trenches will not qualify for payment in terms of this clause.

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2(a) to, except for compaction which shall be carried out by machine, hand backfill machine excavated trenches where ordered by the Employer's Agent.

The volume shall be computed from the dimensions specified, shown on the Drawings or ordered by the Employer's Agent.

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2 (a), to selectively stockpile topsoil where ordered by the Employer's Agent, including of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting within the applicable free haul distance from the stockpile.

The volume shall be computed from the dimensions ordered by the Employer's Agent."

The unit of measurement shall be the cubic metre, measured in accordance with Subclause 8.2 of

SABS 1200D, of surplus and/or unsuitable material disposed of, on the instruction of the Employer's Agent, at a spoil site or spoil sites provided by the Contractor.

The tendered rate shall include full compensation for the additional cost of providing a spoil site or other means of disposing of surplus spoil material, for transporting the material regardless of the distance involved, for acceptance charges for such material and for all other incidental costs to dispose of the spoil material.

(7) Backfill stabilised with 5% cement where directed by the Employer's Agent..........Unit: m³

The unit of measurement shall be the cubic metre of backfill material, measured in place after compaction according to the authorised dimensions, which was stabilised on the Employer Agent instructions in accordance with Subclause PSDB 3.5(c).

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing, backfilling and compacting the stabilised material to 90% of modified AASHTO density."

The unit of measurement shall be the cubic metre of soilcrete placed on the Employer's Agent instructions in accordance with Subclause PSDB 3.5(d), measured in place according to the authorised dimensions.

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing and placing the soilcrete as well as for the cost of shuttering if required."

PSDB8.3.3 Excavation Ancillaries:

PSDB8.3.3.1 Deficiency in Backfill Material

Add the following to subclause 8.3.3.1(c):

The rate shall also include for compaction of sub-base quality backfill as per PSDB 3.5

Replace the heading and contents of this Clause with the following:

"This item shall only apply to the compaction of materials in areas subject to road traffic loads as defined in PSDB 3.5.

The volume will be computed from the length of trench falling within the defined area, the width as shown on the Drawings and the depth from the top of the bedding to the designated level of the underside of the required selected layer, finished verge level etc. as scheduled on the Drawings. The rate tendered shall cover the cost of the additional compactive effort as specified.

Payment for this work will be additional to that covered by 8.3.2(a)."

PSDB8.3.6 Finishing

PSDB8.3.6.1 Reinstate Road Surfaces

Repla	ace from "a) Gravel on shoulders" Through to " Etcetera'sUnit: m²" with the follow	ing:
"(a)	Backfilling using Trench fill	∩ ^{3.}
(b)	Medium grade asphalt (min thickness 25mm)	m²
(c)	Gravel Wearing courseUnit: ı	m²
(d)	Concrete Driveways and Walkways (min thickness 100mm)) ²
(e)	Grass verges and Lawns	1 2

For item (a) the volume will be computed from the length of trench as applicable and the width determined from the applicable side allowances specified in 8.2.3, and the depth from road surface to top of selected fill blanket. Payment for this item will be additional to that for excavation covered by 8.3.2.

For items (b) to (e) the area will be computed from the length of paved trench surface as applicable and the width determined from the applicable side allowances specified in 8.2.3.

The rates shall further cover the cost of temporary accommodation of traffic (including the signs and bypasses), arranging for safety of the public, excavation (including breaking up, removal and disposal of surplus material) and the subsequent reinstatement as specified in 5.9, and shall include the cost of delays and the cost of any risk of having to repair damage as specified in 5.10."

PSDK GABIONS AND PITCHING (SANS 1200DK)

PSDK1 MATERIALS (Clause 3.1)

PSDK1.2 QUALITY (CLAUSE 3.1.1.1)

The stone shall be clean, hard, unweathered and free from fissures and flaking. It shall have a relative density of 2.65 and should pass the requirements of the standard specification in terms of size, durability and finish.

PSDK1.2 Size (Clause 3.1.1.2)

No stone shall be of a size such that it will pass through a ring of diameter 88mm.

No stone shall be of a size:

- exceeding 250mm, and at least 85% of the stones shall be of a size equal to or exceeding 120mm, in the case of gabion boxes, and,
- exceeding 150mm, and at least 85% of the stones and shall be of a size equal to or exceeding 100mm, in the case of mattresses.

PSDK1.3 Gabion Cages (Clause 3.1.3)

Gabion boxes shall consist of double twisted, hexagonal wire mesh of nominal 80mm mesh, with 4,4mm o/d frame wire and 2,7mm o/d mesh wire. Complete with partitions at 1m centres. All wire to be mild steel to SANS 1580 - 2010, zinc coated by hot-dip galvanising to SANS 675 – 2009.

Mattresses shall consist of double twisted, hexagonal wire mesh of nominal 80mm mesh, with 4,0mm o/d frame and 2,5mm o/d mesh wire. Complete with partitions at 1m centres. All wire to be mild steel to SANS 1580 - 2010, zinc coated by hot dip galvanising to SANS 675 - 2009.

PSDK1.4 Geotextile (Clause 3.1.4)

The geotextile liner shall be Bidim U34 or similar approved.

PSDK8 MEASUREMENT AND PAYMENT

PSDK8.1 Gabions (Subclause 8.2.1 and 8.2.2)

Box and mattress gabions will be measured by volume.

The materials used shall comply with clauses PSDK1.1, PSDK 1.2 and PSDK 1.3 above.

PSG CONCRETE (STRUCTURAL) (SANS 1200G)

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/19mm.

PSG3 MATERIALS

PSG 3.2 Cement

PSG 3.2.3 Alternative Types of Cement

Replace the contents of this subclause with the following:

"Only CEM-1 42.5 according to SABS ENV 197-1 may be used.

If the Contractor wishes to use any other type of cement, he shall obtain the Employer's Agent prior written approval (see 8.1.3.2 and 8.1.3.3). The tendered rates, however, shall be based on the use of OPC only."

PSG 3.2.3 Storage of Cement

Add the following to this Sub-clause:

"Cement shall not be stored for longer than 12 weeks without the Employer's Agent permission."

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.

PSG 3.4 Aggregates

PSG 3.4.3 Storage of Aggregates

Add the following:

"When aggregates of different chloride content are stored on the Site, their use in the various classes of concrete shall be strictly controlled."

"PSG 3.9 Curing Compound

Curing compound shall be white pigmented natural resin based liquid curing compound complying with ASTM 309-74."

"PSG 3.10 MATERIAL FOR BUILDING WORK

PSG 3.10.1* Cement

The requirements stipulated for subclause 3.2.1 and PSG 3.2.1 shall apply.

PSG 3.10.2* Sand

Sand for mortar shall comply with SABS 1090.

PSG 3.10.3* Bricks

Brickwork shall be built in stretcher bond. The walls shall be built to the dimensions shown on the drawings or ordered. All bricks shall be well soaked in water immediately before being laid and the previous course of bricks shall be well wetted before the laying of the following course.

Walls shall be carried up regularly so that no brickwork is more than 1m higher than adjoining brickwork.

All bricks shall comply with SABS 227 and shall be NFX burnt clay masonry units free of stones, cracks and other defects. The bricks shall be obtained from an approved manufacturer and samples of the bricks shall be submitted to the Employer's Agent for approval.

PSG 3.10.4* Mortar

Mortar shall comprise of the cement, lime and sand mixed in the proportions given below:

Cement: 50 kg

Lime: 0 – 40L

Sand: 130L (measured loose and damp)"

"PSG 3.11" Classification of No-Fines Concrete

No-fines concrete shall be type NF19, the prefix denoting the size of the aggregate, namely 19mm.

Each size of aggregate shall be a single size aggregate graded in accordance with SABS 1083.

The volume of aggregate per 50kg of cement shall be 0,3m³."

"PSG 3.14 PROTECTIVE COATING

The internal surface of the pump sump, including soffit of cover slab shall be coated and treated as scheduled below and strictly in accordance with manufacturer's instructions:

Coat	Product	Nominal DFT (µm)
1 (Primer)	Sikafloor 156	100
2	Sikagard 63 N (Green)	200
3	Sikagard 63 N (Grey)	200
TOTAL DFT		500

All coats shall be in contrasting colours and no DFT reading may be less than nor more than the minimum and maximum values specified by the manufacturer. The overall average DFT shall not be less than the nominal DFT specified.

The concrete surface to be coated shall be cleaned and prepared as specified by the manufacturer.

Where ordered by the Employer's Agent a moisture barrier Sika Epochem 720 shall be applied if the moisture in the concrete is above the required specifications of the manufacturer before applying the above coatings (the primer coat will then be omitted)."

"PSG 3.15" Stainless Steel

The following grades of stainless steel must be used:

316L for welded applications,

316 for not-welded applications."

PSG 4 PLANT

PSG 4.1 GENERAL

Add the following subclause:

"PSG 4.1.1 Minimum Plant

The Contractor shall have the following minimum Plant available and in sound working order:

- (a) Two concrete mixers, each of sufficient capacity to complete a section of the wall between horizontal construction joints within 4 hours and without interruption.
- (b) Two weigh-batchers to supply the mixers.
- (c) Four concrete vibrators, at least one of which shall be powered by an internal combustion engine.
- (d) One air compressor.
- (e) Suitable and adequate Plant to transport and raise concrete and other material and equipment from ground level to the top of the structure at all stages of construction.

(f) Elevated storage tanks of adequate capacity to ensure that sufficient water will be available before commencement of every major concrete-placing operation.

If the Plant used for placing concrete for the structure is electrically or mechanically powered, the Contractor shall also provide some other approved, non-electrically-powered standby means for placing concrete at an adequate rate in the event of a power or mechanical failure of the main Plant.

When the Contractor elects to place a crane inside the walls of the structure during the construction period, he shall communicate with the Employer's Agent in good time to ensure that the design and layout of the panels that form the roof slab and floor allow for such positioning of the crane. When sections of the roof and floor have to be redesigned to accommodate the crane, the redesign cost shall be borne by the Contractor."

PSG 4.5 FORMWORK

PSG 4.5.1 Design

"All formwork or scaffolding required for any part of the Works shall be designed by the Contractor, and before commencing with the erection of any formwork or scaffolding, the Contractor shall submit the methods he proposes to use to the Employer's Agent for approval. The Employer's Agent has the authority to order alterations to the design or the sizes of any part of the formwork or scaffolding. The Contractor shall check the safety and suitability of all such alterations. The fact that the Employer's Agent has approved or altered any part of the formwork of scaffolding shall not be construed as relieving the Contractor of his responsibility with regard to the strength and stability of the formwork or scaffolding."

PSG 4.5.2 Finish

Add the following:

"The finish to all exposed concrete shall be smooth, and that to buried or backfilled surfaces rough."

PSG 4.5.3 Ties

Add the following:

"No plugs, bolts, ties or clamps of any description used to hold the formwork will be allowed to project into or through the concrete unless expressly approved by the Employer's Agent.

Only approved tie-rods consisting of solid rods (that remain embedded in the concrete) and with removable ends shall be used to hold the formwork of the walls. The removable tie-rod ends shall facilitate removal without damage to the concrete, and no permanently embedded parts of such tie-rods shall have less than 50 mm of cover to the finished concrete surface.

The cavities left in the concrete when the tie-rod end cones are removed shall be soundly caulked with a cement mortar to which an approved shrinkage-reducing agent has been added, and shall be neatly finished to a smooth surface uniform with that of the surrounding concrete.

The cost of supplying special tie-rods as well as the filling of cavities left by the tie-rod cones shall

be included in the rates tendered for formwork under the appropriate pay items.

On no account shall formwork be secured to reinforcing bars."

PSG 5 CONSTRUCTION

PSG 5.1 Reinforcement

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 other desirable feature (such as appearance of the member) is not, in the opinion of the Employer's Agent, impaired thereby.

Supports shall be 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 Employer's Agent. 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

(c) Special

Add the following:

"This finish is obtained by first giving the surface a smooth finish with the joints between formwork panels forming an approved regular pattern suitable for the appearance of the structure. All projections shall then be removed, irregularities repaired and the surface rubbed or otherwise treated until it is smooth with an even texture, appearance and colour.

If the finish of exposed surfaces does not comply with the requirements for uniformity of the texture and appearance, the Contractor shall, when instructed to do so by the Employer's Agent, rub down the exposed surfaces of the entire structure or any part thereof as specified below, entirely at his own cost. All repairs must be completed before the rubbing commences.

The surface shall be saturated with water for at least one hour. The initial rubbing of the face shall be carried out with a medium coarse carborundum stone together with a small amount of mortar of

the same cement/sand ratio as the concrete being repaired. Rubbing shall continue until all form marks, projections and irregularities have been removed and a uniform surface has been obtained. The paste produced by the rubbing shall be kept in place. The final rubbing shall be carried out with a fine carborundum stone and water. This rubbing shall continue until the entire surface has a smooth, even texture and is uniform in colour. The surface shall subsequently be washed with a brush to remove surplus paste and powder."

PSG 5.2.2 Preparation of Formwork

Add the following to this Sub-clause:

"Construction joints shall be positioned as shown on the Drawings."

PSG 5.2.5 Removal of Formwork

PSG 5.2.5.6* The Contractor shall make provision for the continued support of beams and slabs while the formwork is being removed and/or for back propping of beams and slabs."

PSG 5.3 Holes, Chases and Fixing Blocks

Add the following:

"Cover blocks for reinforcing and fixtures may be placed into the concrete provided that neither the strength nor any other desirable characteristic (such as the appearance) of the concrete section is affected or impaired in the opinion of the Employer's Agent."

PSG 5.5 CONCRETE

PSG 5.5.1 Quality

PSG 5.5.1.5 Durability

The exposure conditions of the reservoir concrete are classified as "severe".

PSG 5.5.1.7 Strength Concrete

Add the following:

"The concrete mixes shall be designed by the Portland Cement Institute or a similar approved laboratory.

The minimum ordinary Portland cement content for strength concrete with a 28 day characteristic compressive strength of 25MPa and higher shall be 325kg/m³. The maximum ordinary Portland cement content shall be 400kg/m³ in reinforced concrete and 500kg/m³ in prestressed concrete.

The maximum water: cement ration shall be 0,55 for ordinary Portland cement."

PSG 5.5.2 Batching

Notwithstanding the requirements of this subclause, the method of batching shall be subject to approval. If volume batching is allowed, only full standard 50kg bags of cement may be used to

make up a batch.

PSG 5.5.3 Mixing

PSG 5.5.3.2 Ready-Mixed Concrete

Add the following:

"Ready-mixed concrete may be used on the Site. The Contractor shall take samples for testing from every load delivered to the Site."

PSG 5.5.5 Placing

Add the following:

"Concreting of the wall between horizontal construction joints shall be carried out in both directions from a point on the wall in order to close the gap with fresh concrete."

PSG 5.5.6 Compaction

Delete "or (if approved).... by spading, rodding or forking" in the first sentence of subclause 5.5.6.3.

PSG 5.5.2 Construction Joints

Add the following:

"Construction joints shall be limited to the minimum.

Horizontal construction joints are permitted in the structure walls in positions indicated on the Drawings or approved by the Employer's Agent. Vertical construction joints in the walls are subject to the written approval of the Employer's Agent and the cost of all such vertical or horizontal construction joints will be deemed to be included in the rates for cast-in-situ concrete.

The construction joints in water-retaining structures shall be made strictly in accordance with the details shown on the Drawings. The joints between screeds and concrete floors shall be regarded as construction joints and the surface of the floor shall be prepared as described for construction joints.

Should the Contractor's method of construction necessitate the placing of a construction or other joint in a position not shown on the Drawings, such method of construction and position of the joint shall be approved by the Employer's Agent in writing. The cost of such joint shall be included in the tendered rates and shall include scabbling or the concrete where steel reinforcement is continuous.

The wall shall be cast in lifts of a height that permits each lift to be poured without interruption in one continuous operation during normal working hours.

It is the Contractor's responsibility to ensure that construction joints are watertight. The Contractor's proposed method for ensuring the watertightness of such joints shall be submitted to the Employer's Agent for his approval.

For construction joints at kickers all additional costs for concrete, preparation, etc. will be deemed to

be included in the rates tendered for concrete in walls or sides and kicker joints or construction joints will not be measured separately."

PSG 5.5.8 Curing and Protection

Add the following:

"The curing methods of retaining for formwork in place, covering with a waterproof membrane and use of a curing compound of the type specified in PSG 3.9 are strongly recommended. Concrete will not be paid for unless properly cured and proof of curing is continuously visible on site

PSG 5.5.10 Concrete Surfaces

All unformed concrete surfaces shall, except where otherwise ordered, be given a steel float finish.

"5.5.10.4* Where the surfaces of the concrete are to be additionally hardened or protected the positions of such surfaces and the method to be used will be shown on the Drawings and will be scheduled. Materials or products with a ferrous content will not be allowed."

PSG 5.5.16 Soilcrete

Where soilcrete is specified for filling under floor slabs, the soilcrete shall comply with the requirements of subclause PSDB 3.5 (c) of section 1200 DB as amended and shall be placed as specified in the subclause."

"PSG 5.5.17*Brickwork

Brickwork shall be built in stretcher bond to the dimensions shown on the drawings. All bricks shall be well soaked in water immediately before being laid and the previous course of bricks shall be well wetted before the laying of the following course."

"PSG 5.5.19" No-Fines Concrete

PSGA 5.5.19.1* Batching

Cement shall be measured by mass or full bags of 50kg each and aggregate shall be measured by volume in approved measuring boxes or barrows.

The quantity of water added shall be just sufficient to form a smooth grout that will adhere to and completely coat each and every particle of aggregate and that is just wet enough to ensure that at points of contact of the aggregate the grout will run together to form a small fillet to bond the aggregate together. The mix shall contain no more than 20 ℓ of water per 50kg of cement.

Mixing shall be carried out in an approved batch-type mechanical mixer, but small quantities may be hand mixed.

PSGA 5.5.19.2* Placing

No-fines concrete shall be placed in accordance with the procedure approved by the Employer's Agent. It shall be placed in its final position within 15 minutes of having been mixed.

The concrete shall be worked sufficiently to ensure that it will completely fill the space to be concreted and that adjacent aggregate particles are in contact with one another. Excessive tamping or ramming shall be avoided and under no circumstances shall the concrete be vibrated.

PSGA 5.5.19.3 Protection

All no-fines concrete shall be protected from the elements and loss of moisture. Protection against loss of moisture shall be accomplished by one or more of the following methods:

- (a) Retaining formwork in place
- (b) Covering exposed surfaces with sacking or other approved material kept continuously wet
- (c) Covering exposed surfaces with plastic sheeting

No-fines concrete placed during cold weather shall be adequately protected against frost for at least 3 days."

PSG 7 TESTS

PSG 7.1 FACILITIES AND FREQUENCY OF SAMPLING

PSG 7.1.1 Facilities

Add the following:

"The Contractor shall provide sufficient storage capacity for the concrete cubes and shall arrange to have them tested by an approved laboratory.

The cost of all testing, including the cost of sampling, storage and transport of samples shall be included in the rates tendered for concrete work."

PSG 7.1.2 Frequency of Sampling

Notwithstanding the requirements of this subclause, the Contractor shall take note that he is responsible for taking an adequate number of tests to ensure that the concrete being used complies with the specification. The Employer's Agent will only carry out such control testing as he requires.

PSG 7.3 ACCEPTANCE CRITERIA FOR STRENGTH CONCRETE

Add the following:

"Test results obtained from the supplier of ready-mixed concrete will not be accepted for evaluation in terms of Subclause 7.3, but samples for testing shall be taken of such concrete at the point of placing."

PSG 8 MEASUREMENT AND PAYMENT

PSG 8.1 MEASUREMENT AND RATES

PSG 8.1.1 Formwork

Delete "or splays over 20 mm x 20 mm" from the first line of paragraph 8.1.1.2.

Add the following to paragraph 8.1.1.2:

"Splays up to and including 25 mm x 25 mm will not be measured separately and will be deemed to be included in the formwork costs."

PSG 8.1.2 Reinforcement

Replace the contents of this Clause with the following:

"The unit of measurement for steel bars shall be the ton of reinforcement in place, in accordance with the Drawings or as authorised by the Employer's Agent.

The unit of measurement for welded steel fabric shall be the kilogram of fabric reinforcement in place, and the quantity shall be calculated from the net area covered by the mesh, excluding overlaps.

Clips, ties, separators, stools and other steel used for positioning reinforcement will not be measured, unless these are shown on the bending schedules.

The tendered rate shall include full compensation for the supply, delivery, cutting, bending, welding, placing and fixing of the steel reinforcement, including all tying wire, stools, supports and waste."

PSG 8.1.3 Concrete

Add the following to PSG 8.1.3.1(d):

"Strip foundations and encasement of pipes shall be cast directly against the sides and bottoms of excavations. No payment shall be made for additional concrete in overbreak."

Delete ", or the plan size of the excavation where additional excavation is provided to facilitate erection of forms" from the second line of paragraph 8.1.3.1(c).

Add the following to PSG 8.1.3.3(a):

Add after "mixing, testing" in the second line of subclause 8.1.3.3(a) "including transport to an approved laboratory".

PSG 8.4 SCHEDULE CONCRETE ITEMS

PSG 8.4.3 Strength Concrete

Add the following after the last sentence:

In the case of structural floor screeds, the unit of measurement shall be the square metre and the average thickness and proportions will be stated."

Add the following new subclauses:

The rate tendered shall cover the costs for supplying and applying the curing compound in accordance with manufacturer's specifications.

	(i)	Vertical surfaces	Unit: m²						
	(ii)	Horizontal surfaces	. Unit: m²						
PSG 8.4.8	Inserts (typ	pe of description stated)	Unit: No						
The tendered rate shall cover the cost of all labour, equipment, materials and incidentals required to build in the stated items as detailed on the drawings. The provision of the items to be built in will, except if otherwise stated, be measured for payment elsewhere."									
PSG 8.5	<u>Joints</u>								
Replace "Unit	t : m" with "l	Jnit : m or m²".							
Add the follow	ving new su	bclauses:							

Separate items will be scheduled for each type of miscellaneous work.

The tendered rates shall include full compensation for providing all labour, materials and equipment required to carry out the work, for all preparatory work, for constructing the work scheduled in a workmanlike manner and for finishing-off and cleaning up when the work has been completed."

The rate tendered shall cover the cost of all labour, equipment, materials, for mixing, placing, wrapping with geotextile and transportation necessary to complete the block as specified and detailed."

PSHA STRUCTURAL STEELWORK (SUNDRY ITEMS) (SANS 1200HA)

PSHA 3 MATERIALS

PSHA 3.1 Structural Steel

Delete the Sub-Clause and substitute:

Except where scheduled to the contrary or shown on the drawings, the grade of steel to be used in the manufacture of the following shall be that grade normally supplied by reputable manufacturers approved by the Employer's Agent:

All structural steelwork which shall include ladders, safety cages and platforms, shall be manufactured from 300W grade steel in conformity with SABS 1431, except where shown to the contrary on the drawings or in the schedule of quantities.

All stainless steel shall be grade 304, except where shown to the contrary on the drawings or in the schedule of quantities.

Grade 3Cr12 steel shall be used where scheduled or shown on the drawings and shall be fully pickled and passivated prior to installation.

PSHA 5 CONSTRUCTION

PSHA 5.1.2 Contractor to Provide Shop Details

Add to the Sub-Clause:

The Contractor shall prepare his own shop details based on the dimensions and details given on the drawings and will be required to submit his shop details to the Employer's Agent at least 3 weeks prior to fabrication. Written consent must be obtained from the Employer's Agent, prior to commencing fabrication. The Contractor is still responsible for ensuring that the shop details are dimensionally correct.

PSHA 5.2.6 Handrails

Add to the Sub-Clause:

Hand railing shall be of tubular construction in Grade 304L stainless steel of an approved proprietary make.

Hand and knee rails shall be not less than 32 mm O.D. (wall thickness not less than 1,6 mm) and the height of the handrails (centre) shall be 1 000 mm above walk-way level, with knee rails located approximately midway between.

Stanchions shall be not less than 44 mm O.D. (wall thickness not less than 1,6mm) and shall have ball type or spun and flared connectors to suit horizontal or angled hand railing as required. The base plates shall not be less than 8mm thick.

In general all bends in the hand and knee railing shall be 140 mm radius. Handrails shall be either

side or top mounted and shall be fastened with stainless steel nuts, bolts and washers.

Spacing between stanchions shall be determined by site conditions but in no case shall it exceed 1 800 mm c/c. At bends, stanchions shall be provided on either side at a distance of 300 mm from mid-bend.

Finished handrailing shall be true to line and level and connections shall be securely fixed by means of 2 No. stainless steel pins, finished flush on each side of the joints (to the approval of the Employer's Agent).

All ends shall have closures joining the hand and knee railing.

The rate quoted per metre is to include for the supply and installation of the handrail, knee rail, portion of a stanchion, footing, holding down bolts and nuts and is to be inclusive of all cutting, mitring, welding, grinding and waste.

PSHA 5.2.7 Ladders

Add to the Sub-Clause:

Stairs and ladders are to be provided in accordance with the details shown on the drawings.

PSHA 5.2.8 Open Grid Floors

Add to the Sub-Clause:

Open grid steel flooring is to be cut and framed to the required panel shapes and sizes all in accordance with the details shown on the drawings.

PSHA 5.2.10 Protective Treatment

Add to the Sub-Clause:

All mild steel shall be hot-dip galvanised except where shown to the contrary on the drawings or in the schedule of quantities. Hot-dip galvanising shall conform to SABS 121;2000 for heavy duty coatings or equivalent. Screwed and socketed tubing shall be galvanised in compliance with BS 1387. Galvanised malleable cast iron fittings shall comply with SABS 509.

PSHA 5.2.11 Pipe Clamps and Brackets and/or Supports (New Sub-Clause)

Clamps and brackets around pipes and supports under pipes and valves are to be constructed to the details shown on the drawings and are to be provided with all necessary bolts for fixing to concrete.

Where pipes and valves are supported inside concrete chambers on fabricated steel pipe supports, a layer of 6 mm thick GP rubber sheet (Shore hardness 65) shall be attached to the top surface of the steel support by contact adhesive prior to receiving the pipe or valve to be supported. The rubber is to extend 20mm beyond the edges of the plate.

PSHA 5.3.6 Grouting

Add to the Sub-Clause:

The Contractor will be fully responsible for all grouting work under this Contract.

PSHA 6 TOLERANCES

PSHA 6.1.3 Accuracy of Erection

Add to the Sub-Clause:

The accuracy of erection shall be the degree of accuracy II as tabulated but amended as follows:

In items d)1) and d)2) of the table the Degree of Accuracy given as " \pm 5" shall be read as " \pm 3".

PSHA 7 TESTING

PSHA 7.1 TEST CERTIFICATES

Delete the part sentence "in terms of the project specification" from the wording of the Sub-Clause and add the words "when so requested by the former" at the end of the sentence.

PSHA 8 MEASUREMENT AND PAYMENT

PSHA 8.3 SCHEDULED ITEMS

Add the following introduction to the subsequent Sub-Clauses:

The tendered rates shall cover the cost of preparing shop details (where applicable), the supply of all materials, fabrication, process control, loading, transporting to Site, off-loading, erection (unless separately included), setting into concrete or brickwork and grouting in. They shall also include for the supply of all nuts, bolts, holding down bolts, washers, rivets, cutting to waste, all temporary bracing, templates and shuttering necessary for installing, transporting and erecting.

Where the scheduled items for steelwork include corrosion protection, then the price stated shall also include for such protection as specified in SABS 1200 HC as amended by PSHC. Similarly the materials and corrosion protection for nuts, bolts, washers etc shall match the steelwork ordered.

PSL MEDIUM-PRESSURE PIPELINES (SANS 1200L)

PSL1 SCOPE

PSL1.1 Add the following:

"This specification shall also cover the installation of the cross-connection and pipework inside the tower."

PSL2 INTERPRETATION

PSL2.1.3* Drawings

Drawings numbered L1, L2 and L3 referred to in this standardized specification have been superseded by the Employer's Agent Drawings. Wherever the aforementioned drawings are referred to, the appropriate of the details shown on the Employer's Agent Drawings shall apply."

PSL2.4 Abbreviations

Add the following:

"HDPE: High Density Polyethylene."

PSL3 MATERIALS

PSL3.3 CI Pipes, Fittings and Specials

Add the following:

"CI fittings and specials for use with uPVC pipes shall be class 16."

PSL3.7.3* uPVC Pipes

uPVC pipes and fittings shall be provided with spigot and socket rubber ring joints and shall be manufactured to standards acceptable to the Employer's Agent. Solvent welded fabricated fittings will not be acceptable."

PSL3.8.3 Flanges and Accessories

Add to Subclause 3.8.3:

"The insertion piece shall be such as to cover the full face of the flange (i.e. the O/D). Drilling shall conform to SABS 1123/1600/3.

PSL3.8.4 Loose Flanges

Bolts and nuts shall comply with SABS 135.

PSL3.9.1 CI Pipes and Specials

Notwithstanding the provisions of this subclause, all CI pipes, fittings and specials shall be coated internally and externally using "Rillsan". The coating shall be 250 - 300 microns thick and shall be applied by an approved applicator.

PSL3.9.2 Steel Pipes

Notwithstanding the provisions of this Sub-Clause, all steel pipes and specials to be installed shall be heavy duty hot dipped galvanized complying with the requirements of SABS ISO 1461 and shall **not** be passivated.

After the galvanizing process, all steel pipes and specials shall be cleaned, scrubbed and washed down firstly with a suitable solvent and then with clean water. Immediately thereafter, the pipes and specials shall be internally and externally coated as scheduled below, all in accordance with the manufacturer's instructions.

	Product	DFT (µm)		
Coat		Min	Nominal	Max
1	Holding Primer Sigmacover or approved equivalent	45	50	75
2	Sigma TCN 300 (Brown) or approved equivalent	125	150	175
3	Sigma TCN 300 (Black) or approved equivalent	125	150	175
Total	DFT	295	350	425

All coats shall be in contrasting colours and no DFT reading may be less than nor more than the minimum and maximum values specified. The overall average DFT shall not be less than the nominal DFT specified.

Application shall be by airless or conventional pressure pot spray systems and thinners shall be used strictly in accordance with the manufacturer's instructions. All critical areas like edges and welds shall be given an extra stripe coat.

Note:

The drilling patterns for flanges shall be SABS 1123/NP1600/3 and all pipes, specials and fittings shall be supplied complete with all necessary stainless steel bolts, washers and nuts as well as appropriate insertion pieces applicable to diameter and material.

PSL3.9.6 Corrosive Soil

All buried flanged joints, together with their bolts, shall be protected by means of "Denso" paste and then wrapped to give a covering of at least three layers of "Denso" impregnated tape, or other means of inhibiting corrosion approved of by the Employer's Agent. Denso tape must be carefully moulded over the paste and fitting in order to expel all voids.

PSL3.9.7 Corrosion Protection for Valves and Hydrants

All gate valves and hydrants shall be fusion-bonded epoxy coated internally and externally to SABS 1217 or DIN 30677".

PSL 3.10 VALVES

Notwithstanding the provisions of this Subclause, the following shall apply with respect to the various valves specified on the drawings and scheduled:

PSL3.10.1 Gate Valves

Gate valves shall comply with the following:

Gate valves shall be AVK Series 43/60 or approved equivalent gate valves which conform to the requirements of SABS 664 and shall be of the resilient seal type. All valves shall have a working pressure rating of at least 16 Bar and shall be clockwise opening with non-rising spindle and cap top unless otherwise specified. The wedge shall be fully encapsulated with NBR rubber internally and externally. The wedge nut shall be of the "fixed nut" concept allowing no movement and manufactured from dezincification resistant high tensile navy brass. The primary seal for stern sealing shall be a NBR rubber hydraulic U seal (Manchette type) and the secondary seal shall consist of at least two NBR O rings inside and two outside of a Nylon Bush. The body of the valve shall further bear the SABS mark, trade name, as well as the size and class of valve.

PSL3.11.1 Bricks

All bricks shall comply with SABS 227 and shall be NFX burnt clay masonry units free of stones, cracks and other defects. The bricks shall be obtained from an approved manufacturer and samples of the bricks shall be submitted to the Employer's Agent for approval.

PSL3.11.6 Surface Boxes

Delete the contents of this sub-clause and replace by:

"For non-trafficked areas, surface boxes are to be the thermoplastic type."

PSL5 CONSTRUCTION

Pipes shall be handled and laid in accordance with the manufacturer's specifications.

Large changes in horizontal or vertical alignment of the pipeline will be accommodated by special bends as detailed on the drawings.

Small changes in horizontal or vertical alignment will be accommodated at the pipe joints. In no case shall the deflection exceed two thirds of the recommendations of the relevant SANS, BS or other relevant specification, or of the pipe manufacturer.

PSL5.1 DEPTHS AND COVER (CLAUSE 5.1.4)

Replace the contents of subclause 5.1.4.1 with the following:

Unless otherwise shown on the drawings or instructed by the Employer's Agent, cover to pipes shall be as follows:

During construction:

Where construction traffic is liable to cross over pipes, they shall be laid so that there is not less than 0,75m of cover over the pipe. Road crossings shall be constructed after the construction of the road layers has reached the stage where 0,75m cover is available.

Pipes beneath Verges and Open Spaces:

The tops of pipes beneath verges shall be not less than 0,75m and not more than 1,25m below the final verge level.

Supply Connection:

The tops of pipes shall not be less than 450mm and not more than 600mm below the final road surface.

Pipes beneath existing roadways:

The tops of pipes beneath a road shall not be less than 1m and not more than 1,25m below the road level.

"PSL5.1.4.6 The top of the spindle of a gate valve shall not be less than 75mm nor more than 600mm below

the level at which the top of the valve box is to be set. To ensure the aforementioned, valve spindle extension pieces shall be fitted by the Contractor."

PSL5.3 Setting of Valves, Specials and Fittings

Add to Clause 5.3:

"The hydrant shall be bolted to the tee such that the outlet is in line with the pipeline. Valves shall be positioned opposite the erf splay peg at intersections."

PSL5.11* Markers For Valves and Fire Hydrants

An appropriate marker shall be placed by the Contractor at the position of each valve and fire hydrant.

The markers shall be manufactured and installed in accordance with the details shown on the drawings."

PSL6 TOLERANCES

PSL6.2 CONTROL POINTS

Add the following:

"Valves shall be located as indicated on the plan layout opposite the boundary peg of the erf, and to within a longitudinal tolerance of 100mm."

PSL6.3 Alignment (Plan & Level)

Add to the last sentence:

", provided this does not result in a reversal of the grade of the pipeline."

PSL7 TESTING

PSL7.1 General

Notwithstanding the provisions of this subclause, the Contractor shall take note that an official of the Municipality (ORTDM) Water Division shall witness each successful leakage test carried out. Visits to the site of this official to witness a test will be charged at a rate determined by the Water Engineer per visit after the initial visit, which monies shall be payable by the Contractor.

PSL7.3.1 Test Pressure and Time of Test

Add to sub-clause 7.3.1.1:

"The Contractor's test equipment shall be connected directly to the flange of a hydrant tee – not through the hydrant's screwed outlet – or through a specially adapted end cap or a short, discardable pipe. Alterations may have to be made to the Contractor's test equipment to allow the placing of a Water Division's "in-line" check pressure gauge. If necessary, this will be requested by the Employer's Agent prior to the start of a leakage test.

Upon the successful conclusion of a leakage test, the removal of the Contractor's equipment from the tee and the fitting of the hydrant (supplied by Contractor) will be done by the Water Division when connecting the new reticulation."

With reference to subclause 7.3.1.2 the maximum working pressure shall be the pressure rating of the pipe.

Replace the last line of Clause 7.3.1.3 "less than these points" with the following:

"less than 1,25 nor more than 1,5 times the specified maximum working pressure."

Delete Subclauses 7.3.1.3 and 7.3.1.4

PSL7.3.3 Permissible Leakage Rates

"When testing reticulations made up of different types of pipes, the arithmetical sum of the respective calculated leakage rates for the various pipe types, diameters and lengths shall be taken as the maximum allowable leakage. Alternatively the Contractor may request that each section be tested separately in which case the additional tests, witnessing and connecting fees shall be at his expense."

PSL8 MEASUREMENT AND PAYMENT

PSL8.1 GENERAL

Replace the second sentence of this subclause with the following:

"No payment will be made for depths of excavation in excess of those specified unless ordered in writing by the Employer's Agent."

PSL8.2.1 Supply, lay and Bed Pipes complete with Couplings

Add the following:

"Couplings shall be held to include compression couplings required to join lengths of HDPE pipeline.

The rate tendered shall further cover the cost of the work provided for under 8.2.4, and with respect to testing, the supply and installation of all equipment, fittings and specials required, as well as the cost of water drawn (Refer PS 6.1). The measured quantity of pipe length will not, except for the payment of materials on site, be measured for payment until the length under consideration has been accepted in terms of subclause 7.3, PSL 7.3.1 and PSL 7.3.3. Refer also PS 8.3."

PSL8.2.2 Extra over 8.2.1 for the supplying, laying and bedding of specials complete with Coupling....Unit: No

Add the following:

"The rate tendered shall also as applicable cover the cost of the provision of corrosion protection as specified in PSL 3.9.1, PSL 3.9.6 and PSL 3.9.7."

Add the following:

"The rate tendered shall also as applicable cover the cost of the provision of corrosion protection as specified in PSL 3.9.1, PSL 3.9.6 and PSL 3.9.7".

Replace the heading and contents of subclause 8.2.13 with the following:

PSL8.2.13 Chambers

a) Valve Chambers, etc.

Valve chambers, etc., will be measured as complete units for which separate items will be scheduled for each type of chamber of overall depth not exceeding 1,5m from soffit of roof to floor level complete as detailed on the Drawings.

Unit: No

The tendered rate shall cover all materials, plant and labour necessary for the complete construction of the chambers, including ladders, doors, manhole covers and frames, handrails, the lifting davit as well as the compaction of the bottom of the chamber excavation to 90% of modified AASHTO maximum density as well as for building in of the pipes through the wall, for frames and concrete pedestals, as and when required.

b) Extra over for chambers of depth exceeding 1,5m

Unit: No

Additional depths of chambers in excess of 1,5m will be measured in increments of 0,5m depth for each type of chamber.

The rate tendered shall cover the cost of the complete construction of each extra 0,5m additional depth as well as for additional step irons, brickwork and uPVC pipe as required."

PSL8.2.16 Supply and install valve and hydrant markers

Unit: No

The rate tendered shall cover the cost of the supply of the markers complying with the details shown on the drawings, as well as the cost of all labour and equipment required to install the markers as specified in PSL 5.13, or as directed."

PSL8.2.17 Connection to Existing Mains

Unit: No

An item will be allowed in the Bill of Quantities for the connection to existing mains by the Contractor after acceptance of the reticulation.

The rate tendered shall cover the cost of isolating the main, cutting into the main, connect fitting, dewatering the excavation, taking steps to prevent the ingress of ground, stones and other material into the main, as well as for making good any damage to the existing main.

The excavation to expose the main, the supply, laying, bedding, coupling up and testing of valves and specials used in the connection, as well as the provision of bedding, will be measured for payment under the appropriate items provided for this in the schedule."

PSL 8.2.18 - Leak Detection

a) Level 1 – Visual inspection

Unit: Km

This includes the visual inspection of water lines as shown on the layout drawings to search for visible leaks. This includes opening of fittings chambers, valve boxes etc and to locate the obvious leaks that appear on the surface above buried pipes.

This will be the first phase of identifying leaks and potential leaks and must include for the recording, coordinating and quantifying of leaks and defective fittings.

b) Level 2 – Sounding

Unit: Km

Includes acoustic inspection of the individual existing pipelines with subsurface leak detection equipment, identified and agreed to, between the contractor and the Assistant Employers Representative.

must include for the recording, coordinating and quantifying of leaks and defective fittings.

c) Level 3 – Correlation

Unit: Km

Includes inspection of the individual existing pipelines using correlation equipment, identified and agreed to, between the contractor and the Assistant Employers Representative.

The above three levels excluded excavation and fixing of the leaks.

PSL 8.2.19 – Flow and pressure logging

- a) Supply, install of permanent flow loggers and maintain flow logging of bulk flowmeters up to 300mm in diameter on existing pipelines for the entire duration of project. Flow loggers to be compatible with GMS reporting and communication. Software and licensing costs for recording and communication included under sub-clause (h).

 Unit: No
- b) Supply, install of clamp on type flow loggers and maintain flow logging of bulk flowmeters up to 300mm in diameter on existing pipelines for the entire duration of project. Flow logger to be compatible with GMS reporting and communication. Software and licensing costs for recording and communication included under sub-clause (h).

 Unit: No
- Supply, install and maintain pressure loggers at strategic points, as instructed by the Employer's Agent, for described time frame. Logger to be compatible with GMS reporting and communication. Software and licensing costs for recording and communication included under sub-clause (h).
- d) Total hiring cost which includes the installation, removal and maintenance of the GSM equipment, software and licensing (for a period of 3 years) to be used on flow, pressure and a combination of both pressure and flow loggers. Cost must also include the recording of results. My City or similar approved, automated cloud based meter reading sent at preselected time based intervals. Applicable to sub-clauses (e), (f) and (g) of PSL 8.2.19.
 Unit: Day
- e) Total hiring cost which includes the installation, removal, and maintenance of the pressure logger equipment to be used. Cost must also include the recording and reporting of results. Excludes hiring cost of the GSM equipment and software which is included under subclause (d).

 Unit: Day
- f) Total hiring cost which includes the installation, removal, and maintenance of the flow logger equipment to be used. Cost must also include the recording and reporting of results. Excludes hiring cost of the GSM equipment and software which is included under subclause (d).
 Unit: Day
- g) Total hiring cost which includes the installation, removal and maintenance of the combined flow and pressure logger equipment to be used. Cost must also include the recording and reporting of results. Excludes hiring cost of the GSM equipment and software which is included under sub-clause (d).

 Unit: Day
- h) Supply, install and maintenance of permanent GSM equipment, software and licensing (period of 3 years) to be used on flow, pressure and or a combination of both pressure and flow loggers. My City or similar approved, automated cloud based meter reading sent at pre-selected time based intervals. This is only applicable to the bulk water meters.

Unit: Sum

PSL 8.2.20 - Surveys

 a) Audit and investigations of domestic, industrial, institutional, and commercial water consumers.
 Unit: No

Information to be investigated, recorded, and reported on are as follows but not limited to:

- Owner
- Erf number
- GPS position of water meter/standpipe
- Street address
- Accessibility of meter
- Meter location, inside or outside of erf boundary
- Condition of meter
- Serial number of meter
- Size of meter
- Water meter reading
- Photo of meter/standpipe
- Is there any visible leaks
- Meter test, is it working
- Consumer type
- Meter type
- Does standpipe have a meter
- General comments

Consumer type is scheduled independently from each other.

- A 'second sweep' of audits identified by the Employers Agent on meters and or standpipes for confirmation of queries and information that requires further investigation from the initial audit. Reports also to be updated accordingly.
 Unit: No
- Water loss audit at WTW's. Determine process losses and make recommendations to reduce losses.
 Unit: No
- d) Water loss audit for toilet cisterns at all indigent households. Determine losses and make recommendations to reduce losses.

 Unit: No
- e) Water loss audit at all reservoirs Determine losses and make recommendations to reduce loss

 Unit: No
- f) Audit and investigations of each bulk water meter. Unit: No

Information to be investigated, recorded, and reported on are as follows but not limited to:

- Owner
- Erf number
- GPS position of water meter
- · Street address if applicable
- Accessibility of meter
- Condition of meter
- Serial number of meter
- Size of meter

- Water meter reading
- Photo of meter
- Is there any visible leaks
- Meter test, is it working
- Consumer type
- Meter type
- General comments
- g) A 'second sweep' of audits identified by the Employers Agent on bulk water meters for confirmation of queries and information that requires further investigation from the initial audit. Reports also to be updated accordingly.
 Unit: No
- h) Status quo audit on telemetry system at all installations for the reticulation and bulk water lines, reservoirs, water treatment works etc. Recommendation for refurbishment and extension of the system to be used for water conservation demand management strategies.

 Unit: Sum
- i) Complete audit of all other water network attributes on the bulk and reticulation network, including but not limited to valves, fire hydrants, air and scour valves, condition assessment and status assessment. Inspection, test, and report on findings. Unit: km

PSLB BEDDING (PIPES) (SANS 1200LB)

PSLB2.3 DEFINITIONS

Flexible pipe

Add the following:

"uPVC pipes shall be classified as flexible pipes."

PLSB3MATERIALS

PSLB3.1 SELECTED GRANULAR MATERIAL

Replace the contents of Clause 3.1 with the following:

"Selected granular material shall be an aggregate, sand or granular material, all being a non-cohesive material that is free of vegetation, the grading analysis of which shows 100% passing a 9,5 mm sieve and not more than 5% passing a 0.075mm sieve and has a compactability factor not exceeding 0,4."

PSLB3.3 BEDDING

Add the following:

"For the purposes of this clause uPVC pipes shall be classified as flexible pipes."

PSLB3.4.1 Suitable Materials Available from Trench Excavation

Replace the words "(but is not required") in the fifth line with the words "(at his own cost)."

PSLB3.5* BEDDING IN WATERLOGGED CONDITIONS

Where ordered by the Employer's Agent a bedding cradle of the specified thickness, comprising of 6,7mm concrete stone complying with SABS 1083, shall be used in waterlogged conditions."

PLSB5CONSTRUCTION

PSLB5.1.1.2 Bottom

Add the following:

"Where expansive clay is encountered in the trench bottom, the selected fill blanket shall comprise of selected granular material."

PSLB5.2 PLACING AND COMPACTING OF RIGID PIPES

Stormwater pipes shall be bedded as specified for rigid pipes unless otherwise indicated on the drawings or ordered by the Employer's Agent.

PSLB5.3 PLACING AND COMPACTING OF FLEXIBLE PIPES

Notwithstanding the provisions of this subclause, the bedding for flexible pipes shall be constructed to the dimensions shown on the Drawings and by using the bedding material specified (refer also PSLB 5.1.2).

PLSB8MEASUREMENT AND PAYMENT

PSLB8.1 Volume of bedding materials (Clause 8.1.3)

Notwithstanding the provisions of this subclause, the volume of bedding will be computed from the dimensions shown on the Drawings.

Replace the last sentence with the following:

"No allowance will be made for bulking of material or any additional volume of bedding material required due to over break or any other cause.

Further, the volume of bedding displaced by the pipeline will not be measured for payment."

PSLB8.2 Disposal of displaced material (Clause 8.1.5)

Replace the contents of this Clause with the following:

"Material displaced by the pipeline and by imported material from sources other than trench excavation, shall be disposed of at an approved site furnished by the Contractor. No haulage shall be payable for such material."

PSLB8.2.3 From Commercial Sources

c)* 6,7 mm concrete stone to SABS 1083 Unit: m³

Add the following to the end of this Clause: "Commercial sources shall include off-site sources located by the Contractor."

The item volume for concrete encasement to the pipes will be computed from the dimensions of the concrete as given on the drawings.

The concrete shall be 20 MPa concrete with 19mm stone. The rate shall cover the cost of dealing with any excavation (in all material including disposal of surplus) that is additional to that measured under the item for pipe trench excavation, the cost of encasing the pipe in concrete including the cost of formwork (if any), etc., and the cost of formwork to form flexible joints at each pipe collar or joint.

PSLB8.2 Supply and install geofabric material (Kaytech A2 or similar approved) Unit: m²

The unit of measurement shall be the square metre, measured in accordance with Subclause 8.2.4 of SANS 1200 DK.

PSLF ERF CONNECTIONS (WATER)

PSLF 1 SCOPE

Add the following:

"This specification also covers the installation of on-site supply pipelines together with associated connecting pipework."

PSLF 2 INTERPRETATIONS

PSLF 2.3 DEFINITIONS AND ABBREVIATIONS

Leading connection (or service connection or erf connection)

Replace the contents of this subclause with the following:

"A short pipeline used for conveying water from a reticulation main up to but not including a consumer's meter." Add the following definitions:

On-site water connection

A short pipeline used for conveying water from a meter installation to a top structure.

Saddle

A polypropylene ring used with a compression fitting will also classify as a saddle connection."

PSLF 3 MATERIALS

PSLF 3.1.4 Polyethylene pipes

Polyethylene pipes shall be black HDPE pipes complying with SABS ISO 4427, manufactured from PE 80 or PE 100 material with a nominal pressure rating (PN) of 10 bar.

Replace the last sentence of this Subclause "Couplings threaded" with the following:

"Couplings and compression fittings used on or to joint polyethylene pipes shall be of the compression type "Plasson", "Alprene" or approved equivalent with a nominal pressure rating of 16 bar (PN 16).

Polyethylene pipe diameters stated in the schedule shall be nominal outside diameters unless specifically stated otherwise."

PSLF 3.1.7 Saddles

4-bolt clamp polypropylene saddles "Plasson", "Alprene" or similar approved with stainless steel bolts, are required for uPVC, mPVC and HDPE pipes.

"PSLF 3.1.8* Polypropylene pipes and fittings

Polypropylene pipes shall be "Polycop", "Ctando" or similar approved pressure pipes, rated for 16 bars and shall further comply with the requirements of SABS 1315.

"PSLF 3.1.9* Copper tube fittings

Copper tube fittings shall be "Conex" or similar approved. Conex fittings shall be dezincification resistant compression type copper tube fittings – metric to SABS 1067 Part 1."

"PSLF 3.1.10* Ballcocks

Ballcocks shall be Polypropylene, "Ctando" or similar approved.

PSLF 3.2.2.1 General

Add the following:

The type of meter shall be class C Kent, Sensus or similar approved compatible with GSM equipment.

PSLF 3.4 Bedding

Replace the contents of this subclause with the following:

"Bedding material shall comply with the requirements of PSLB 3.1."

PSLF 3.6 Markings and marker posts

An erf connection shall be marked by attaching danger tape to its extremity and extending the tape to ground level, prior to backfilling the trench.

PSLF 5 CONSTRUCTION

Replace the heading and contents of subclause 5.1 with the following:

"PSLF 5.1 <u>Earthworks</u>

PSLF 5.1.1 Trenching

Trenches for erf connections shall be excavated to the widths and depths shown on the Employer's Agent 's drawings. In addition to the aforementioned, in areas subject to traffic loads, erf connections shall only be excavated after the roadbed has been constructed.

With respect to the on-site water connection, the Contractor is at liberty to use any convenient trench width, but the cover to the pipe shall nowhere be less than 300mm.

PSLF 5.1.2 Trench bottom

The trench bottom shall be prepared as specified in SABS 1200 DB. Trenches shall be kept sufficiently dry to allow proper and safe bedding, laying and jointing of pipes and kept dry until the pipeline has passed the required tests and construction of the bedding has been completed."

PSLF 5.2.2 Pipe laying

Replace the words "Pipes on the drawings," in the first line of this subclause, with the following:

"Pipes shall be laid, bedded and backfilled as specified and shown on the drawings,"

Add the following:

"The backfilling of erf connection trenches in areas subject to road traffic loads shall be completed as specified and shown on the drawings, before the construction of the base in the case of bituminous surfaced roads and the gravel surfacing in the case of gravel surfaced areas may commence."

Replace the heading and contents of subclause 5.2.3 with the following:

"PSLF 5.2.3 Connections

PSLF 5.2.3.1 General

Erf water connections shall be made up as detailed on the drawings, and shall be installed in the

positions shown on the drawings or indicated on site.

Any erf connection showing leakage when tested under the test pressure specified for the water main shall be condemned. All necessary remedial work and re-testing shall be carried out at the Contractor's expense.

On site water connections shall be made up in accordance with the requirements of the National Building Regulations using the material specified in PSLF 3.1.8.

PSLF 5.2.3.2 Under pressure connections

The connections to the existing mains shall, where required, be made using the necessary fittings and an under pressure drilling apparatus. The method employed to effect the connection shall be approved by the Employer's Agent.

PSLF 7 TESTING

PSLF 7.1 General

Replace the contents of this subclause with the following:

"Erf connections

The erf connections shall be tested concurrently with the new reticulation to which they are connected, all in accordance with the applicable requirements of subclause 7.3 of SABS 1200 L and PSL 7.3.1, except that the field test pressure shall nowhere exceed 10 bars.

On-site water connections

The pressure testing of the on-site water connections will not be required. The installations shall however show no signs of leakage under operating mains pressure."

PSLF 8 MEASUREMENT AND PAYMENT

PSLF 8.1 GENERAL

No amendments

PSLF 8.2 Scheduled items

PSLF 8.2.2 Supply, lay, and test Erf Connections

Unit: m

Add the following to the clause:

The tendered rate must include all fittings (excluding those covered under PSLF 8.2.4) required to install a water meter to existing pipe lines. It might be that the existing erf connection might need to be extended and or moved.

PSLF 8.2.3 Extra over Items 8.2.2 for specials (if any)

Delete this clause, these fittings must be covered under PSLF 8.2.2

Replace clause 8.2.4 with the following:

PSLF 8.2.4 Supply and Install Meters Complete with Couplings

Meters will be measured separately by number of each type and size.

- a) Supply only rate for the water meter itself supplemented by all relevant anticipated fittings and materials for full installation to the erf connection pipe line. The rate must also include the contractors mark up on the material cost for handling and transportation to site.
 Sensus/Kent or similar approved type.
- b) Install rate for the water meter, meter box and fittings. The rate shall cover the cost of handling, transportation installation, jointing, cutting, digging, removal of existing (if applicable), backfill, making good and commissioning.
 Unit: No

Amend clause 8.2.7 as follow:

PSLF 8.2.7 Supply Surface Boxes

Surface boxes will be measured separately by the number of each type.

The rate shall cover the cost of supplying the surface box, bricks, and other materials for installing. The installation cost shall be covered under PSLF 8.2.4 (b).

Add clause:

"PSLF 8.2.9" Standpipes with associated civil works, pipes, fittings, valve and flow meter

The rate shall cover the supply of all materials from and including the 1" male adaptor after the saddle of the main supply up to the bibtap inclusive of the isolating valve, valve box, flow meter, approximate 6m length of 25mm HDPE (pressure rating to suit reticulation supply pipe, Y-standard and drainage complete as shown on the typical standpipe detail drawing except the list of exclusion items below.

- Gabion mattress
- Gabion stone
- Concrete slab
- Saddle to main supply line.

The rate shall include the installation of the complete standpipe installation as shown on the typical standpipe detail drawing. Connecting to main supply line. Laying of pipe and fittings in bedding, Installing of Y-section fence post with pipe and fittings. The rate shall further cover the <u>supply and construct</u> of the concrete slab, 19mm stone layer and the gabion mattress including the gabion stone.

SPECIFICATION EMA: ENVIRONMENTAL MANAGEMENT (BASIC)

1. SCOPE

This Specification covers the requirements for controlling the impact of construction activities on the environment. It contains clauses that are generally applicable to the undertaking of civil engineering works in areas where it is necessary to impose pro-active controls on the extent to which the construction activities impact on the environment.

Interpretations and variations of this Specification are set out in the Specification Data.

2. NORMATIVE REFERENCES

2.1 Supporting Specifications

Where this Specification is required for a project the following specifications shall, inter alia, form part of the Contract Document.

- a) SANS 1200 Series of Standardized Specifications;
 - i) SANS 1200 A or SANS 1200 AA, as applicable;
 - ii) SANS 1200 C;
 - iii) SANS 1200 D.
- b) Health and Safety Specification;
- c) Construction Regulations, 2014, and
- d) Standards listed in Appendix A (as applicable)

3. DEFINITIONS

For the purposes of this Specification the definitions and abbreviations are given in the applicable specifications listed in 2.1 and the following definitions shall apply:

Construction Activity: Any action taken by the contractor, his sub-

contractors, suppliers or personnel during the construction process as defined in the contract

documents.

Contaminated water: Water contaminated by the Contractor's activities, e.g.

concrete water and runoff from plant/ personnel wash

areas.

Environment: The surroundings within which humans

exist and that are made up of:

- a) The land, water and atmosphere of the earth;
- b) Micro-organisms, plant and animal life;
- c) Any part or combination of a) and b) and the interrelationships among and between them; and
- d) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Authorisation: A written statement from the National Department of

Environmental Affairs (DEA) or relevant provincial department with general and specific conditions and the EMPr recording its approval of an application for a planned undertaking that triggers listed activities in the Environmental Impact Assessment (EIA) regulations of the National Environmental Management Act (NEMA No.107 of 1998) or other relevant environmental legislation.

Method Statement:

A written submission by the Contractor to the Employer's Agent in response to the Specification or a request by the Employer's Agent, setting out the plant, materials, labour and method the Contractor proposes using to carry out an activity, in such detail that the Employer's Agent is enabled to assess whether the Contractor's proposal is in accordance with the Specifications and/or will produce results in accordance with the Specifications.

The Method Statement shall cover applicable details with regard to:

- Construction procedures;
- · Materials and equipment to be used;
- Transportation of equipment/materials to and from site;
- Movement of equipment/material on site;
- Storage of materials on site;
- Containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Timing and location of activities;
- Areas of non-compliance with the Specifications; and
- Any other information deemed necessary by the Employer's Agent.

Potentially hazardous

Substance:

A substance that, in the reasonable opinion of the Employer's Agent, can have a deleterious effect on the environment.

Reasonable:

Unless in contradiction to any relevant definition in South African law or the opinion of any government department tasked with environmental matters, or if the context indicates otherwise, then "reasonable" shall mean reasonable in the opinion of the Employer's Agent after he has consulted with a person suitably experienced in environmental matters (at least 5 years experience), and familiar with the type of project being carried out.

Solid waste: As per the definition in the National Environmental

Management: Waste Act (59 of 2008, as amended).

Topmaterial: Topsoil is considered to be the natural soil covering,

including all the vegetation and organic matter. Depth may vary at each site but in general t is considered to be the top 150 mm of soil (topsoil) and root material of cleared vegetation. Topsoil should be identified via

simple soil tests.

Water Course: As per the definition of a water course in the National

Water Act (36 of 1998), ie::

a) A river or spring;

b) A natural channel or depression in which water flows regularly or intermittently;

c) A wetland, lake or dam into which, or from which,

water flows; and

d) Any collection of water which the Minister may, by notice in a Gazette, declare to be a watercourse as defined in the National Water

Act, 1998 (Act No. 36 of 1998).

A reference to a watercourse includes, where

relevant, its bed and banks.

Wetland: Land which is transitional between terrestrial and

aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation

typically adapted to life in saturated soil.

4. Legal Requirements

Construction shall be according to the best industry practices, as identified in the project documents.

All requirements of the relevant environmental authorisations must be adhered to.

4.1 Statutory and other applicable legislation

In addition to this particular specification it is necessary for the Contractor to be conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

Major environmental legislation, as amended from time to time, includes but is not limited to the following:

- a) The Constitution Act (No. 6 of 1996)
- b) National Environmental Management Act (NEMA) (No. 107 of 1998)
- c) National Environmental Management: Air Quality Act (No. 39 of 2004) and Atmospheric Pollution Prevention Act (No. 45 of 1965)

- d) National Environmental Management: Biodiversity Act (No. 10 of 2004)
- e) National Environmental Management: Protected Areas Act (No. 57 of 2003)
- f) National Environmental Management: Waste Act (No. 59 of 2008)
- g) National Forests Act (No. 84 of 1998)
- h) National Heritage Resources Act (No. 25 of 1999)
- i) National Water Act (No. 36 of 1998)
- j) Conservation of Agricultural Resources Act (No. 43 of 1983)
- k) Mineral and Petroleum Resources Development Act (No. 28 of 2002).
- National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008)
- m) National Veld and Forest Fire Act (No. 101 of 1998)
- n) Environment Conservation Act (No. 73 of 1989) (Noise Control Regulations)

5. ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

Copies of this Particular Specifications EMA, forming part of contract documentation, shall be kept at the site office and must be distributed to all senior contract personnel who must familiarise themselves with its contents.

Copies of all Environmental Authorisations as relevant to the contract shall also be kept on site.

Implementation of this document requires the involvement of several stakeholders, each fulfilling a different but vital role as outlined herein, to ensure sound environmental management during the construction phase of a project. Terminology as set out in the most recent construction regulations will prevail should there be a discrepancy with this Particular Specification EMA.

a) The Employer

The Employer is the holder of Environmental Authorisation(s) issued by the relevant competent regulating authorities. Compliance with the requirements of the various Authorisations is the responsibility of the Employer. Anyone acting on the Employer's behalf is accountable for the compliance with the Authorisation and to manage potential impacts of the activities.

b) The Employer's Agent

The Employer's Agent is the person appointed by the Employer, who acts as the Employer's Agent on-site implementing agent and carries the responsibility to ensure that the Contractor undertakes construction activities in such a way as to not contravene the requirements set out in the Environmental Authorisation(s) issued for the contract. An Employer's Agent Representative may also be appointed to assist the Employer's Agent.

c) The Contractor

The Contractor is responsible for project delivery in accordance with the prescribed contract data, among which this Particular Specifications EMA shall be included.

The Contractor shall receive and implement any instruction issued by the Employer's Agent or Employer's Agent Representative relating to compliance with the Particular Specifications EMA including the removal of personnel or equipment.

Compliance with the provisions contained herein or any condition imposed by the environmental approvals shall become the responsibility of the contractor through an approved Environmental Site Officer (ESO). The Contractor shall nominate a person from among his site personnel to fulfil this function and submit to the Employer's Agent for his approval the curriculum vitae of the proposed ESO. This request for approval shall be given, in writing, at least fourteen days before the commencement of any construction activity clearly setting out reasons for the nomination, and with sufficient detail to enable the Employer's Agent to make a decision.

d) The Environmental Site Officer (ESO)

Once a nominated representative of the Contractor has been approved he/she shall become the ESO and shall be the responsible person for ensuring that the provisions of this Particular Specification EMA are complied with during the life of the contract. The ESO shall submit regular written reports to the Employer's Agent, but not less frequently than once a month.

The ESO is to have experience in the environmental monitoring of construction projects or other environmental regulatory field.

(e) Environmental Control Officer (ECO)

The Environmental Control Officer (ECO) is an independent environmental specialist appointed by the Employer to objectively and regularly monitor the contractor's implementation of this Particular Specification EMA and the Environmental Management Programme (EMPr) as may be determined by the sensitivity of the project or by conditions of authorisations. The ECO will act as the Employer's Agent's representative and will report to the relevant authority in a format as prescribed in the relevant environmental legislation.

6. REQUIREMENTS

6.1 Materials

6.1.1 Materials handling, use and storage

The Contractor shall ensure that any delivery drivers are informed of all procedures and restrictions (including "no go" areas) required to comply with the Specifications. The Contractor shall ensure that these delivery drivers are supervised during off loading, by someone with an adequate understanding of the requirements of the Specifications.

Materials shall be appropriately secured and covered to ensure safe passage between destinations. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

6.1.2 Hazardous substances

Procedures detailed in the Materials Safety Data Sheets (MSDS) shall be followed in the event of an emergency situation.

Potentially hazardous substances shall be stored, handled and disposed of as prescribed by the Employer's Agent.

6.2 Plant

6.2.1 Ablution facilities

The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are properly stored and removed from Site. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited.

Washing, whether of the person or of personal effects and acts of excretion and urination are strictly prohibited other than at the facilities provided.

6.2.2 Solid waste management

The Contractor shall provide sufficient bins with lids on Site and no on-site burying, dumping or burning of any waste materials, vegetation, litter or refuse shall occur. Bins shall be emptied a minimum of once daily. The waste may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, as approved by the Employer's Agent.

All solid waste shall be disposed of off site at an approved landfill site. The Contractor shall supply the Employer's Agent with a certificate of disposal.

6.2.3 Contaminated water

Contractor shall set up a contaminated water management system, which shall include collection facilities, as well as suitable methods of disposal of contaminated water. The Contractor shall prevent the discharge of water contaminated with any pollutants, into the environment.

The Contractor shall notify the Employer's Agent immediately of any pollution incidents on Site. The Employer's Agent's approval is required prior to the discharge of contaminated water to the Municipal sewer system.

6.2.4 Noise

The Contractor shall limit noise levels (e.g. install and maintain silencers on machinery). The provisions of SANS 1200 A Subclause 4.1 regarding "built-up areas" shall apply to all areas within audible distance of residents whether in urban, peri-urban or rural areas.

Appropriate directional and intensity settings are to be maintained on all hooters and sirens and no amplified music shall be allowed on Site other than in emergency situations.

The Contractor shall restrict any of his operations that may result in undue noise disturbance to the hours of 08:00 to 17:00 on weekdays and Saturdays. Unless otherwise agreed to with the Employer's Agent.

6.2.5 Fuel (petrol and diesel) and oil

Fuel may be stored on site in an area approved by the Employer's Agent. The Contractor shall ensure that all liquid fuels (petrol and diesel) are stored in tanks with lids, which are kept firmly shut or in bowsers. The tanks/ bowsers shall be situated on a smooth impermeable surface (concrete or 250 µm plastic) with an earth bund (plastic must have a 5 cm layer of sand on top to prevent damage and perishing). The impermeable lining

shall extend to the crest of the bund and the volume inside the bund shall be 130% of the total capacity of all the storage tanks/ bowsers. Provision shall be made for refuelling at the fuel storage area, by protecting the soil with 250 μ m plastic covered with a minimum of a 5 cm layer of sand.

The Contractor shall prevent unauthorised access into the fuel storage area. No smoking shall be allowed within the vicinity of the fuel storage area. The Contractor shall ensure that there is adequate fire-fighting equipment at the fuel stores.

6.2.6 Equipment maintenance and storage

Leaking equipment shall be repaired immediately or removed from the Site. Where practical, maintenance of plant shall not occur on site. Where emergency maintenance is necessary, the Contractor shall ensure that this does not result in contamination of the soil or vegetation. Drip trays shall be provided in construction areas for stationary and "parked" plant as well as during emergency servicing of vehicles. Drip trays shall be inspected and emptied daily. The contents of drip trays shall be disposed off at an authorised facility. Drip trays shall be closely monitored during rain events to ensure that they do not overflow.

The washing of equipment shall be restricted to urgent or preventative maintenance requirements only. The use of detergents for washing shall be restricted to low phosphate and nitrate containing, low sudsing-type detergents.

6.3 Methods and procedures

6.3.1 Method Statements

Any Method Statement required by this Specification, the Employer's Agent or the Specification Data shall be produced within such reasonable time as is required by this Specification, the Employer's Agent or the Specification Data. The Contractor shall not commence the activity until the Method Statement has been approved. Except in the case of emergency activities, the Contractor shall allow a period of two weeks for approval of the Method Statement by the Employer's Agent. Such approval shall not unreasonably be withheld.

Method Statements in respect of environmental management that shall be provided by the Contractor within 14 days of receipt of the letter of acceptance and prior to the activity covered by the Method Statement being undertaken, include, but are not limited to:

- 1) Location and structure of the fuel storage site, including the type and volume of storage container and the design and capacity of the bund.
- 2) Solid waste (refuse) control and removal of waste from the Site, including the number, type and location of rubbish bins, the manner and frequency with which the waste will be removed from site and the disposal site.
- 3) Contaminated water management system, including an indication of the source and volume of contaminated water and how this would be disposed of.
- 4) Emergency procedures for fire, and accidental leaks and spillages of hazardous materials.
- 5) Methods for working in a sensitive environment such as a watercourse or on steep slopes.

6.3.2 Environmental awareness training

Within seven days of the Commencement Date, the Contractor's site staff including foremen and site management staff shall attend an environmental awareness training course, of approximately one-hour duration. The Contractor shall liase with the Employer's Agent prior to the Commencement Date to fix a date and venue for the course. The Contractor shall provide a suitable venue with facilities as required by the Specification Data and ensure that the specified employees attend the course.

Any new employees coming on to site after the initial training course and the Contractor's suppliers and subcontractors shall also attend this course. The Contractor shall ensure that all attendees sign an attendance register, and shall provide the Employer's Agent with a copy of the attendance register the day after each course.

6.3.3 Construction personnel information posters

As required by the Specification Data, the Contractor shall erect and maintain information posters for the information of his employees depicting actions to be taken to ensure compliance with aspects of the Specifications. Such posters will be supplied by the Employer's Agent and shall be erected at a location specified by the Employer's Agent.

6.3.4 Site clearance

The Contractor shall ensure that the clearance of vegetation is restricted to that required to facilitate the execution of the Works. Site clearance shall occur in a planned manner, and cleared areas shall be stabilised as soon as possible. The detail of vegetation clearing shall be subject to the Employer's Agent's approval.

Should fauna be encountered during site clearance, earthworks shall cease until such fauna have been safely relocated.

6.3.5 Site division and Site demarcation

The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. As required by the Specification Data, the Contractor shall erect and maintain permanent and/ or temporary fences of the type and in the locations directed by the Employer's Agent. Such fences shall, if so specified, be erected before undertaking designated activities.

6.3.6 Access routes/ haul roads

On the Site, and, if so required by the Specification Data, within such distance of the Site as may be stated, the Contractor shall control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic and that all relevant laws are complied with. In addition such vehicles and plant shall be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On gravel or earth roads on Site and within 500m of the Site, the vehicles of the Contractor and his suppliers shall not exceed a speed of 20km/h.

Mud and sand deposited onto public roads by construction activities shall be cleared on a daily basis.

6.3.7 Cement and concrete batching

Where applicable, the location of the batching plant (including the location of cement stores, sand and aggregate stockpiles) shall be as approved by the Employer's Agent. The concrete/cement batching plant shall be kept neat and clean at all times.

The batching plant shall be located on a smooth impermeable surface (plastic) and shall be bunded and sloped towards a sump to contain spillages of substances.

All wastewater resulting from batching of concrete shall be disposed of via the contaminated water management system and shall not be discharged into the environment.

Empty cement bags shall be stored in temporary weatherproof containers and shall be disposed of on a regular basis via the solid waste management system.

The Contractor shall take all reasonable measures to prevent the spillage of cement/ concrete during batching and construction operations. During pouring, the soil surface shall be protected using plastic and all visible remains of concrete shall be physically removed on completion of the cement/ concrete pour and appropriately disposed of. All spoiled and excess aggregate/ cement/ concrete shall be removed and disposed of via the solid waste management system.

Where "readymix" concrete is used, the Contractor shall ensure that the delivery vehicles do not wash their chutes directly onto the ground. Any spillage resulting from the "readymix" delivery shall be immediately cleared and disposed of via the solid waste management system.

6.3.8 Fire control

No fires may be lit on site. Any fires that occur shall be reported to the Employer's Agent immediately. Smoking shall not be permitted in those areas where it is a fire hazard. In terms of the Atmospheric Pollution Prevention Act (No. 45 of 1965), burning is not permitted as a disposal method.

The Contractor shall ensure that there is basic fire-fighting equipment available on Site at all times. This shall include at least rubber beaters when working in urban open spaces and fynbos areas, and at least one fire extinguisher of the appropriate type when welding or other "hot" activities are undertaken.

6.3.9 Emergency procedures

The Contractor shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the Employer's Agent and the relevant authorities. The Contractor shall ensure that the necessary materials and equipment for dealing with spills and leaks is available on Site at all times. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the Employer's Agent.

In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill.

6.3.10 Community relations

The Contractor shall record any complaints or queries from the public, as well as the action taken in response, in the site request book. Complaints and associated responses shall be communicated to the Employer's Agent on a weekly basis. The Contractor's contact details shall be posted on the site board to enable the public to telephone should they have any queries or complaints.

6.3.11 Protection of natural features

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes unless agreed beforehand with the Employer's Agent. Any features affected by the Contractor in contravention of this clause shall be restored/ rehabilitated to the satisfaction of the Employer's Agent.

The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams, open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.

6.3.12 Protection of flora and fauna

Except to the extent necessary for the carrying out of the Works, flora shall not be removed, damaged or disturbed nor shall any vegetation be planted without authorisation.

Trapping, poisoning and/or shooting of animals is strictly forbidden. No domestic pets or livestock are permitted on Site.

6.3.13 Protection of archaeological and palaeontological remains

The Contractor shall take reasonable precautions to prevent any person from removing or damaging any fossils, coins, articles of value or antiquity and structures and other remains of archaeological interest discovered on the Site, immediately upon discovery thereof and before removal. The Contractor shall inform the Employer's Agent immediately of such a discovery and carry out the Employer's Agents instructions for dealing therewith. All works within the vicinity of the discovery must cease immediately and the area shall be cordoned off until such time as the Employer's Agent authorises resumption of the works in writing.

6.3.14 Stockpiling

The Employer's Agent will identify suitable sites for stockpiling. Stockpiles shall be convex in shape, shall be no higher than 2 m and shall be located so as to cause minimal disturbance to the environment. Where required, appropriate precautions shall be taken to prevent erosion and limit the compaction of the stockpiles. The Contractor shall ensure that all stockpiles do not cause the damming of water or generate sediment-laden runoff.

6.3.15 Dust

The Contractor shall take all reasonable measures to minimise the generation of dust as a result of construction activities to the satisfaction of the Employer's Agent. Appropriate dust suppression measures, e.g. dampening with water, shall be used when dust generation is unavoidable, particularly during prolonged periods of dry weather in summer. Dust suppression measures shall be agreed upon in consultation with the Employer's Agent.

7. COMPLIANCE WITH REQUIREMENTS AND PENALTIES

7.1 Compliance

Environmental management is concerned not only with the final results of the Contractor's operations to carry out the Works but also with the control of how those operations are carried out. Tolerance with respect to environmental matters applies not only to the finished product but also to the standard of the day-to-day operations required to complete the Works.

It is thus required that the Contractor shall comply with the environmental requirements on an ongoing basis and any failure on his part to do so will entitle the Employer's Agent to certify the imposition of a penalty as detailed below.

7.2 Penalties

Penalties will be issued for certain transgressions. Penalties may be issued per incident at the discretion of the Employer's Agent. Such penalties will be issued in addition to any remedial costs incurred as a result of non-compliance with this Specification. The Employer's Agent will inform the Contractor of the contravention and the amount of the penalty, and shall be entitled to deduct the amount from monies due under the Contract.

Penalties will be as set out in the Specification Data.

8. MEASUREMENT AND PAYMENT

8.1 Basic principles

8.1.1 General

Except as specified below or in the Specification Data or as billed, no separate measurement and payment will be made to cover the costs of complying with the provisions of this Specification and such costs shall be deemed to be covered by the rates tendered for the items in the Bill of Quantities completed by the Contractor when submitting his tender.

8.1.2 All requirements of the environmental management specification

All work not measured elsewhere, associated with complying with any requirement of the environmental management specification shall be measured as a sum. The tendered rate shall cover any cost associated with complying with the environmental management specification and shall include for all materials, labour and plant required to execute and complete the work as specified, described in the Bill of Quantities or shown on the drawing(s).

8.1.3 Work "required by the Specification Data"

Where a clause in this Specification includes a requirement as "required by the Specification Data", measurement and payment for compliance with that requirement shall be in accordance with the relevant measurement and payment clause of the Specification Data.

8.2 Billed items

8.2.1 Method Statements: Additional work

No separate measurement and payment will be made for the provision of Method Statements but, where the Employer's Agent requires a change on the basis of his opinion that the proposal may result in, or carries a greater than warranted risk of damage to the environment in excess of that warranted by the Specifications, then any additional work required, provided it could not reasonably have been foreseen by an experienced contractor, shall be valued in accordance with the Clause in the General Conditions of Contract dealing with Provisional Sums.

A stated sum is provided in the Bill of Quantities to cover payment for such additional work.

8.2.2 All requirements of the environmental management specification

All other work not measured elsewhere, associated with complying with any requirement of the environmental management specification shall be measured as a sum. The tendered rate shall cover any cost associated with complying with the environmental management specification and shall include for all materials, labour and plant required to execute and complete the work as specified, described in the Bill of Quantities or shown on the drawing(s).

APPENDIX A : APPLICABLE STANDARDS

Reference is made to the latest issues of the following standards:

SANS 1200 A General

SANS 1200 AA General (small works)

SANS 1200 C Site clearance

SANS 1200 D Earthworks

Health and Safety Specifications

Construction Regulations, 2014. General conditions of contract for construction workers

LIC LABOUR INTENSIVE CONSTRUCTION METHODS

LIC1 SCOPE

This Particular Specification covers the requirements to be met by the Contractor and his appointed Subcontractors in respect of the employment of labour on the construction of the Works.

LIC2 INTERPRETATIONS

LIC2.1 SUPPORTING SPECIFICATIONS

Where this Particular Specification is applicable, the following specifications shall, inter alia, form part of the contract document.

SANS 1200 A - 1986 GENERAL (SMALL WORKS)

SANS 1200 AB - 1986 ENGINEER'S OFFICE

SANS 1200 C - 1980 (as amended 1982) SITE CLEARANCE

SANS 1200 DA - 1988 (as amended 1990) EARTHWORKS (SMALL WORKS)

SANS 1200 DB - 1989 EARTHWORKS (PIPE TRENCHES)

SANS 1200 G - 1982 CONCRETE (STRUCTURAL)

SANS 1200 L - 1983 MEDIUM-PRESSURE PIPELINES

SANS 1200 LB - 1983 BEDDING (PIPES)

SANS 1200 LC - 1981 CABLE DUCTS

SANS 1200 LF - 1983 ERF CONNECTIONS (WATER)

SANS 1200 M - 1996 ROADS (GENERAL)

SANS 1200 ME 1981SUBBASE

LIC2.2 APPLICATION

This Particular Specification contains clauses that are applicable wherever labour intensive methods of construction are to be employed.

Machine applications shall only be allowed by the Employer's Agent for the specific operations listed hereunder or, if so directed, by unforeseen or special circumstances on site.

Loss of contract time owing to unsatisfactory progress, poor contract management or whatsoever related reason will not be regarded as "unforeseen or special circumstances", unless ruled to the contrary by the Employer's Agent on a motivation submitted by the Contractor.

The Contractor shall request permission from the Employer's Agent in writing, at least fourteen calendar days in advance, (if possible), of his intention to use machine operations for work reserved

for hand labour execution. The request is to be substantiated by a proper motivation.

No machine operations subject to the above request are to commence without the prior written approval of the Employer's Agent and no additional payment of whatsoever nature shall be allowed should the Employer's Agent agree to the request submitted by the Contractor. The tendered rates and prices applicable to hand labour execution shall suffice.

LIC2.3 DEFINITIONS

Labour Intensive – An activity that is undertaken by labour only, specifically excluding the use of any plant or mechanical equipment, except hand tools and related equipment.

Task – A quantified activity or operation.

Daily Rate – The remuneration of a day's work, regardless of output and only applicable when unable to define tasks.

Task Rate – The remuneration for a completed task.

Labour-Intensive Construction – The economically efficient employment of an as great a portion of labour as is technically feasible to produce as high a standard of construction as demanded by the specifications; thus the effective substitution of labour for equipment. (Note: This definition is not Contract-specific, but applies to the project as a whole. This Contract is a part of such a project.)

Labour-Based Construction – see Labour-Intensive Construction

Local Community" shall mean one of the communities resident in the area in which the Works are to be executed.

The area in which the Works are to be executed" shall for the purposes of this Particular Specification, be deemed to mean the Lesseyton Villages receiving water from the scheme.

Local person" shall mean a person whose "domicilium et executandi" shall have been within the area in which the Works are to be executed, for a continuous period of not less than six months and whose presence on the Site and engagement on the Works is acceptable or tolerable to the local community.

LIC3 ACTIVITIES THAT MAY MAKE USE OF MACHINE INTENSIVE OPERATIONS

The activities listed hereunder may be executed by machine intensive means, if not listed hereunder the execution shall be labour intensive.

- Excavation in Classes 1 or 2 materials as for restricted excavations.
- Excavations in Machine Class or Class 1 materials as for bulk excavations
- Excavations in any Class materials as for bulk excavations in excess of 50 Cu m from a single position, subject to the Employer's Agent's prior approval.
- Excavation of pipe trenches greater than or equal to 250 mm in diameter.

- Excavations in Pickable material as for restricted excavations where the utilization of hand labour has been proved to be impracticable, subject to the Employer's Agent's prior approval.
- Confined excavation with total depth in excess of 1.2 m.
- Stripping and stockpiling of overburden at approved borrow areas.
- Loosening and/or stockpiling of borrow material at approved borrow areas.
- Hauling (including loading) of all materials beyond 150 m.
- Pumping and transporting of water.
- Mixing of concrete for water retaining structures where strength and reinforced concrete is specified and the volume of a particular cast exceeds 5 Cu m.
- Handling and laying of pipes with an individual mass exceeding 350 kg per pipe length.
- Compaction of fill and in-situ material
- Construction of controlled road layers and maintenance of haul roads.
- Execution of major road crossings where time is of the essence.
- Site clearance that requires breaking up of concrete and other permanent structures.
- Placing of bedding and backfill in trenches with collapsing sides
- Any operation as may be specified by the Employer's Agent.

LIC4 MATERIALS

The requirements of the applicable SANS specification and/or Project Specification shall apply except where superseded by this Particular Specification.

LIC5 PLANT

Where plant is to be used, as authorised by this Particular Specification, the requirements of the applicable SANS 1200 Specification and/or Project Specification shall apply except where superseded by this Particular Specification.

LIC6 CONSTRUCTION

The requirements of the applicable SANS 1200 Specification and/or Project Specification shall apply.

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.

LIC7 TOLERANCES

The requirements of the applicable SANS 1200 Specification and/or Project Specification shall apply.

LIC8 TESTING

The requirements of the applicable SANS 1200 Specification and/or Project Specification shall apply.

LIC9 MEASUREMENT AND PAYMENT

The requirements of the applicable SANS 1200 Specification and/or Project Specification shall apply except where superseded by this Particular Specification.

LIC10 COMPOSITION OF LABOUR

Labour should be employed from the local community. The composition of local labour shall be such that there is an equal split between man and women and youth and over 35 years old.

LIC11 PENALTY FOR NON-COMPLIANCE

Should the Contractor during the execution of the Work reserved for labour intensive execution:

- a) use unspecified plant; or
- b) contravene the requirements of Particular Specification

then the Contractor shall pay to the Employer the penalty as set out hereunder and the Employer may without prejudice to any other method of recovery deduct the amount of such penalty from any monies in the hands due or which may become due to the Contractor.

- a) R1 000.00 per occurrence; plus
- b) 15% of the value of work so executed calculated as the product of the quantity (calculated by the Employer's Agent) and the applicable tendered rate.

LIC12 AVAILABILITY OF LABOUR AND SKILLS

A CLO will be established, with their main task being to assist the Contractor in obtaining suitable skilled and unskilled labour for the various tasks to be executed under this Contract. The CLO will thus draw up a list of skilled local people who have the potential to undertake one or another of the Subcontract Works included in this Contract, and will also draw up a list of unskilled labour to prevent the Contractor having to go to the local communities in search of labour.

The CLO will thus be requested to advise the local communities of the work opportunities that will become available under this Contract prior to the Bid being awarded.

All labour information received by the CLO regarding skilled and unskilled labour will be passed on to the Contractor.

Training of Community-Based Labour and the CLO will be conducted by Training Consultants prior to the commencement of this Contract.

Project Labour Report Project/Contract Name& Number Month: Project/Contract Start Date: Contractor: Project/Contract End Date: Consultant: Project/Contract Value (incl. allowance for escalation/excl. VAT): **CLO Name: CLO ID Number:** Total value of work done to date (incl. escalation/excl. VAT): ID Numb Name Surname Daily/Ta Number of Disable Number Course Name Training Service Provider er of Number/DOB sk Rate days worked d(Y/N)of training this month days this worker (incl. month training) 2 3

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	Contractor:		 	Date			
	Consultant:		 	Date	 		

CONTRACT NAME:								
CONTRACT NO.:								
TARGETED LABOUR CONTRAC	T PARTICIPATION	EXPENDITURE REF	PORT BASE	D ON CERTIFICATE NO				
Total Value of Scheduled Works (Net amount) (A)	R		Excl. provisional sums, esca	alation, contingencies and VAT			
Employed by	=	on wages and		ous expenditure on wages	Net Amount for this Month			
(Name of Company)	allowances on targ (B)	leted labour	and allowa	nces on targeted labour				
Main Contractor								
Sub-Contractor A								
Sub-Contractor B								

Tendered Contract Pa	articipation Goal in respect	of Targeted Labour		%	
Targeted Labour Part	icipation achieved to date	(B/A x 100)	%	,	
Signatures					
Contractor:			Date		
Consultant:			Date		-

PAYMENT FOR THE LABOUR-INTENSIVE COMPONENT OF THE WORKS

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

Applicable labour laws

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1 Introduction

- 1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT applyto persons employed in the supervision and management of a SPWP.
- 1.2 In this document
 - (a) "Department" means any department of the State, implementing agent or contractor;
 - (b) **"Employer**" means any department, implementing agency or contractor that hires workers to work inelementary occupations on a SPWP;
 - (c) "Worker" means any person working in an elementary occupation on a SPWP;
 - (d) "Elementary occupation" means any occupation involving unskilled or semi-skilled work;
 - (e) "Management" means any person employed by a department or implementing agency to administeror execute an SPWP;
 - (f) "**Task**" means a fixed quantity of work;
 - (g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
 - (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
 - (i) "time-rated worker" means a worker paid on the basis of the length of time worked.
 - (j) "Task rate or daily rate" = As per Government Gazette

2 Terms of Work

- 2.1 Workers on a SPWP are employed on a temporary basis.
- 2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.

- 2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.
- 3 Normal Hours of Work
- 3.1 An employer may not set tasks or hours of work that require a worker to work-
 - (a) More than forty hours in any week
 - (b) On more than five days in any week; and
 - (c) For more than eight hours on any day.
- 3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.
- 4 Meal Breaks
- 4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- 4.2 An employer and worker may agree on longer meal breaks.
- 4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker relieved of his or her duties during the meal break.
- 4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.
- 5 Special Conditions for Security Guards
- 5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.
- A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6 Daily Rest Period

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

7 Weekly Rest Period

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

8	Work on Sun	days and Public Holidays
8.1	A worker may work.	only work on a Sunday or public holiday to perform emergency or security
8.2	Work on Sun	days is paid at the ordinary rate of pay.
8.3	A task-rated v	worker who works on a public holiday must be paid –
	(a)	The worker's daily task rate, if the worker works for less than four hours;
	(b)	Double the worker's daily task rate, if the worker works for more than four hours.
8.4	A time-rated	worker who works on a public holiday must be paid –
	(a)	The worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
	(b)	Double the worker's daily rate of pay, if the worker works for more than four hours onthe public holiday.
9	Sick Leave	
9.1	Only workers ofthis clause.	who work four or more days per week have the right to claim sick-pay in terms
9.2		o is unable to work on account of illness or injury is entitled to claim one day's we for every full month that the worker has worked in terms of a contract.
9.3	A worker may	accumulate a maximum of twelve days' sick leave in a year.
9.4	Accumulated	sick-leave may not be transferred from one contract to another contract.
9.5	An employer	must pay a task-rated worker the worker's daily task rate for a day's sick leave.
9.6	An employer leave.	must pay a time-rated worker the worker's daily rate of pay for a day's sick
9.7	An employer	must pay a worker sick pay on the worker's usual payday.
9.8		g sick-pay, an employer may require a worker to produce a certificate stating er was unable to work on account of sickness or injury if the worker is –
	(a)	Absent from work for more than two consecutive days; or
	(b)	Absent from work on more than two occasions in any eight-week period.
9.9		rtificate must be issued and signed by a medical practitioner, a qualified nurse if member authorised to issue medical certificates indicating the duration and capacity.
9.10	A worker is n	ot entitled to paid sick-leave for a work-related injury or occupational disease for

which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

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10	Maternity	y Leav	re
10.1	A worker	r may	take up to four consecutive months' unpaid maternity leave.
10.2	A worker leave.	r is no	t entitled to any payment or employment-related benefits during maternity
10.3			give her employer reasonable notice of when she will start maternity leave will return to work.
10.4	work for	four w er chil	t required to take the full period of maternity leave. However, a worker may not reeks before the expected date of birth of her child or for six weeks after the d, unless a medical practitioner, midwife, or qualified nurse certifies that she is
10.5	A worker	r may	begin maternity leave –
	(a)		four weeks before the expected date of birth; or
	(b)		On an earlier date –
		(i)	If a medical practitioner, midwife or certified nurse certifies that it is necessaryfor the health of the worker or that of her unborn child; or
		(ii)	if agreed to between employer and worker; or
	(c)		on a later date, if a medical practitioner, midwife or certified nurse has certified that theworker is able to continue to work without endangering her health.
10.6			has a miscarriage during the third trimester of pregnancy or bears a stillborn maternity leave for up to six weeks after the miscarriage or stillbirth.
10.7			returns to work after maternity leave has the right to start a new cycle of on this employment, unless the SPWP on which she was employed has ended.
11	Family re	espon	sibility leave
11.1			work for at least four days per week, are entitled to three days paid family eave each year in the following circumstances -
	(a)		When the employee's child is born;
	(b)		When the employee's child is sick;
	(c)		In the event of a death of –

(ii) The employee's parent, adoptive parent, grandparent, child, adopted child, grandchild, or sibling.

The employee's spouse or life partner;

(i)

Statement of Conditions 12 12.1 An employer must give a worker a statement containing the following details at the start of employment -(a) The employer's name and address and the name of the SPWP; The tasks or job that the worker is to perform; and (b) the period for which the worker is hired or, if this is not certain, the expected (c) duration of the contract: The worker's rate of pay and how this is to be calculated; (d) The training that the worker will receive during the SPWP. (e) 12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement. 12.3 An employer must supply each worker with a copy of these conditions of employment. 13 **Keeping Records** 13.1 Every employer must keep a written record of at least the following -The worker's name and position; (a) In the case of a task-rated worker, the number of tasks completed by the (b) worker: In the case of a time-rated worker, the time worked by the worker; (c) Payments made to each worker. (d) 13.2 The employer must keep this record for a period of at least three years after the completion ofthe SPWP. 14 **Payment** 14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account. 14.2 A task-rated worker will only be paid for tasks that have been completed. 14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer. 14.4 A time-rated worker will be paid at the end of each month. 14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker. 14.6 Payment in cash or by cheque must take place -

	(a)	At the workplace or at a place agreed to by the worker;
	(b)	during the worker's working hours or within fifteen minutes of the start or finish of work;
	(c)	In a sealed envelope which becomes the property of the worker.
14.7	An employer	must give a worker the following information in writing –
	(a)	The period for which payment is made;
	(b)	The numbers of tasks completed or hours worked;
	(c)	The worker's earnings;
	(d)	Any money deducted from the payment;
	(e)	The actual amount paid to the worker.
14.8		is paid in cash or by cheque, this information must be recorded on the envelope ter must acknowledge receipt of payment by signing for it.
14.9		employment is terminated, the employer must pay all monies owing to that one month of the termination of employment.
15	Deductions	
15.1		may not deduct money from a worker's payment unless the deduction is erms of a law.
15.2	An employer worker is req	must deduct and pay to the SA Revenue Services any income tax that the juired to pay.
15.3	pay the mon	who deducts money from a worker's pay for payment to another person must ey to that person within the time period and other requirements specified in the aw, court order, or arbitration award concerned.
15.4	An employer	may not require or allow a worker to –
	(a)	Repay any payment except an overpayment previously made by the employer bymistake;
	(b)	State that the worker received a greater amount of money than the employer actuallypaid to the worker; or
	(c)	Pay the employer or any other person for having been employed.
16	Health and S	afety
16.1	Employers mand safe.	nust take all reasonable steps to ensure that the working environment is healthy
16.2	A worker mu	st –

MANAGEMENT Work in a way that does not endanger his/her health and safety or that of any (a) other person; Obey any health and safety instruction; (b) Obey all health and safety rules of the SPWP; (c) Use any personal protective equipment or clothing issued by the employer; (d) Report any accident, near-miss incident, or dangerous behaviour by another (e) person to theiremployer or manager. **Compensation for Injuries and Diseases** It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993. A worker must report any work-related injury or occupational disease to their employer or manager. The employer must report the accident or disease to the Compensation Commissioner. An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

18 **Termination**

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

19 **Certificate of Service**

- 19.1 On termination of employment, a worker is entitled to a certificate stating –
 - The worker's full name; (a)

(b)	The name and address of the employer;
(c)	The SPWP on which the worker worked;
(d)	The work performed by the worker;
(e)	Any training received by the worker as part of the SPWP;
(f)	The period for which the worker worked on the SPWP;

Any other information agreed on by the employer and worker.

PHS: HEALTH AND SAFETY SPECIFICATION

OHSA (OCCUPATIONAL HEALTH AND SAFETY ACT, NO 85 OF 1993)

HEALTH AND SAFETY SPECIFICATION

HIV/AIDS AWARENESS EDUCATION SPECIFICATION

Part C4: SITE INFORMATION	
C4.1 LOCATION OF THE WORKS	

The project is located approximately 50km North of Mthatha CBD and is situated within the jurisdiction of the O.R. Tambo District Municipality in the province of the Eastern Cape. The approximate central coordinates of the project area are as follows and the Locality Plan is attached in Annexure A:

Latitude: 31° 18′ 58″SLongitude: 28° 45′ 04″E

Description of Site and Access

The project covers a large area and numerous villages in the O.R. Tambo District Municipality

The Tsolo WTW is accessible from Mthatha Town via the following route.

- Travel for approximately 40km North on the N2 from Mthatha.
- Then turn left onto the R396 towards Tsolo Town and travel approximately 5km and turn left at the taxi rank, carry on down the gravel road, then turn right at the T-junction and follow the road to the WTW

For the purposes of the Contract it will be deemed that, prior to submitting this Tender, the Contractor has acquainted himself fully with the information and data provided within the specifications.

C4.2 NATURE OF GROUND AND SUB-SOIL CONDITIONS

The following soil investigations of the Site have been carried out:

None.

C4.3 BACKGROUND INFORMATION

Extracts from the following reports are included separately on a DVD/flash drive as background information to the tenderer:

503081-0000-CC-REP-0005 WCDM Technical Scoping Report (Aurecon, 2020)

503081-0000-CC-REP-0010 Site Assessment Report (Zutari, 2021)

503081-0000-CC-REP-0011 WCDM Situation Assessment Report (Zutari, 2021)

C4.4 RAINFALL DATA

Mthatha Rainfall Data between 2000 to 2020 was used for the on this project, as included on the following page.

South African Weather Service Rainfall return periods



Contact person: Garth Sampson Tel Number: 041 581 8587 E-Mail: 041 581 8587

Issued by Port Elizabeth Weather Office Private Bag x5991 Walmer 6065

Date-

2020/11/19

RAINFALL ANALYSIS FOR: UMTHATHA WO: PERIOD 2000 to 2020

Data for the Average Calculation is not used if:

There are more than five consecutive days of accumulation

The data for certain days in the month is not available

The accumulation period occurred at the end of the month

Data for the Frequency calculation is not used if:

The data for certain days in the month is not available

The accumulation period occurred at the end of the month

	uly (ıber per			Average number of days of Rain						
Month	Average Monthly Rainfall (mm)	Statndard Deviation	Average Number of Rain Days per Month	Number of Months	1 - 5 mm	5.1 - 10mm	10.1 - 20mm	20.1 - 50mm	50.1 - 100 mm	> 100 m m	Maximum 24- hour Rainfall (mm)	Date of Maximum 24- hour Rainfall
JAN	103.8	38.1	15.2	20.0	5.0	3.0	1.8	1.2	0.1	0.0	89.1	2010/01/25
FEB	84.8	34.6	12.4	20.0	4.1	2.0	1.7	0.9	0.1	0.0	53.4	2009/02/14
MAR	92.5	41.3	13.4	21.0	4.6	2.7	1.8	1.1	0.0	0.0	54.2	2012/03/27
APR	57.3	40.2	9.4	21.0	2.8	1.4	1.0	0.7	0.0	0.0	88.5	2013/04/20
MAY	21.6	17.9	5.0	20.0	1.9	0.7	0.5	0.1	0.0	0.0	31.5	2011/05/07
JUN	9.7	13.1	3.6	20.0	1.6	0.4	0.3	0.0	0.0	0.0	14.1	2008/06/03
JUL	18.2	26.0	3.0	20.0	1.1	0.3	0.3	0.3	0.0	0.0	37.0	2011/07/25
AUG	25.8	28.5	4.8	18.0	1.5	0.5	0.2	0.4	0.0	0.0	48.1	2006/08/02
SEP	39.0	37.1	7.1	19.0	2.7	0.9	0.4	0.5	0.1	0.0	88.6	2004/09/25
OCT	53.0	32.5	11.2	16.0	4.1	2.2	1.2	0.4	0.0	0.0	63.4	2017/10/09
NOV	86.8	46.6	13.8	17.0	4.9	2.5	1.9	0.9	0.0	0.0	46.4	2010/11/09
DEC	84.1	37.3	15.2	18.0	6.1	2.2	1.8	0.9	0.0	0.0	44.6	2014/12/09
YR	676.6		9.5	230	40	19	13	7	0	0		

Limitation

Amication

The User shall not at any time, disclose or divulge the Specified Data to any person whomsoever except on a need to know basis to those of its employees and officers who require knowledge thereof. The User will treat the Information as private and confidential to SAWS and will take all reasonable precautions to protect the information from unauthorised use, reproduction or distribution. The South African Weather Service (SAWS) does not give any representation or warranty that the specified Data contains no errors, is complete or up to date or will not infringe any third party intellectual property rights. The User assumes the sole risk of interpret

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South African Weather Service Rainfall return periods



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