



TENDER COVER PAGE

MBD 1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF JOHANNESBURG WATER

BID NUMBER: JW 14302 CLOSING DATE: 22 SEPTEMBER 2023 CLOSING TIME: 10:30 AM

DESCRIPTION: CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

CIDB REQUIREMENTS: TENDERERS SHOULD HAVE A CONTRACTOR CIDB GRADING OF 8CE OR HIGHER

BRIEFING SESSION	COMPLUSORY
BRIEFING DETAILS	DATE AND TIME: 29 AUGUST 2023 AT 12:00
	ADDRESS: CARLSWALD RESERVOIR
	10 WALTON AVENUE, CARLSWALD, MIDRAND
	CO-ORDINATES: 25°58'50.51"S, 28° 5'19.82"E (-25.980841, 28.089856).
	TENDERS RECEIVED FROM BIDDERS THAT DID NOT ATTEND A COMPULSORY
	BRIEFING SESSION WILL BE DISQUALIFIED
TENDER SUBMISSION DETAILS	BID DOCUMENTS MUST BE DEPOSITED IN THE TENDER BOX SITUATED AT GROUND FLOOR IN JOHANNESBURG WATER
	ADDRESS: TURBINE HALL, 65 NTEMI PILISO STREET, NEWTOWN, JOHANNESBURG, 2001
	PLEASE ALLOW SUFFICIENT TIME TO ACCESS JOHANNESBURG WATER OFFICES IN TURBINE HALL AND DEPOSIT YOUR TENDER DOCUMENT IN THE JOHANNESBURG
	WATER TENDER BOX SITUATED AT RECEPTION BEFORE TENDER CLOSING TIME.
	TIMES: THE BUILDING WILL OPEN 7 DAYS A WEEK FROM 06:00 UNTIL 18:00

BIDDER INFORMATION			
NAME OF BIDDER			
NUMBER OF BID SUBMITTED			
PHYSICAL ADDRESS			
TELEPHONE NUMBER			
CELLPHONE NUMBER			
E-MAIL ADDRESS			
VAT REGISTRATION NUMBER			
TAX COMPLIANCE STATUS	TCS PIN	MAAA No	
OTHER STATUS	COIDA Registration No	 CRS(CIDB)No	

EMPLOYER INFORMATION			
DEPARTMENT	PMU	DEPARTMENT	SCM
CONTACT PERSON	Sijabuliso Tshuma	CONTACT PERSON	Gcina Ndela
TELEPHONE NUMBER	011 688 1570	TELEPHONE NUMBER	011 688 1796
E-MAIL ADDRESS	sijabuliso.tshuma@jwater.co.za	E-MAIL ADDRESS	gcina.ndela@jwater.co.za

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TENDER COVER PAGE PART B TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

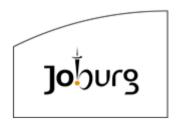
- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED—(NOT TO BE RE-TYPED)
 OR ONLINE
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

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

3.	QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1.	IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ NO	
FO	THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREM OR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH A PRICKE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.





TENDER COVER PAGE

NOTE: HARD COPY TENDER DOCUMENTS ARE AVAILABLE AT A COST OF R350.00 PER SET. DOCUMENTS DOWNLOADED FROM THE ETENDER PORTAL IS AT NO COST BUT MUST COMPLY WITH SUBMISSION REQUIREMENTS.

WITHOUT LIMITATION, JOHANNESBURG WATER TAKES NO RESPONSIBILITY FOR ANY DELAYS IN ANY COURIER OR POSTAL SYSTEM OR ANY LOGISTICAL DELAYS WITHIN THE PREMISES OF JOHANNESBURG WATER. JOHANNESBURG WATER LIKEWISE TAKES NO RESPONSIBILITY FOR OFFERS DELIVERED TO A LOCATION OTHER THAN THE TENDER BOX AS PER THE TENDER SUBMISSION DETAILS STATED IN THE TENDER. PROOF OF POSTING OR OF COURIER DELIVERY WILL NOT BE TAKEN BY JOHANNESBURG WATER AS PROOF OF DELIVERY. TENDER SUBMISSION DOCUMENTS MUST BE IN THE BOX BEFORE TENDER CLOSURE.

The current Johannesburg Water Supply Chain policy is applicable which is available on the JW website www.johannesburgwater.co.za

THE TENDERER IS ENCOURAGED TO SIGN THE TENDER SUBMISSION REGISTER WHEN SUBMITTING THEIR TENDERS.

PLEASE ENSURE YOU SUBMIT 1 x ORIGINAL TENDER HARD DOCUMENT (1X Original Tender document and 1X Electronic copy in memory stick/USB)

Any documents required that are not submitted in the tender box at the deadline will be considered late.

The tenderer accepts that Johannesburg Water will not take responsibility for the misplacement or premature opening of the tender if the outer package is not sealed and marked as stated.

NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.
NAME OF CONTACT PERSON:
SIGNATURE OF BIDDER:
CAPACITY UNDER WHICH THIS BID IS SIGNED:
DATE:





TENDER NOTICE AND INVITATION TO TENDER

1. TENDER NOTICE AND INVITATION TO TENDER

Johannesburg Water (SOC) Ltd invites the tenderer for the following:

CONTRACT NO: JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

The tender document will be available in the form of a download from the Johannesburg Water website (www.johannesburgwater.co.za/supply chain/tenders) starting from 21 August 2023.

OR

A hard copy of the tender document can be procured from Johannesburg Water at a cost of R350 per document. Should the tenderer wish to procure a hard copy of the tender document, please make timeous arrangements with the Johannesburg Water SCM representative as shown on the tender cover page.

The Employer is Johannesburg Water (SOC) Ltd

All tenders and supporting documents must be sealed and be placed in the Tender box on the ground floor of Johannesburg Water by no later than 10:30 am on 22 September 2023.

Address is as follows:

TURBINE HALL, 65 NTEMI PILISO STREET, NEWTOWN, JOHANNESBURG, 2001

The Employer is not obliged to accept the lowest or any tender and reserve the right to appoint:

- a) in whole or in part.
- b) to more than one tenderer.
- c) to the highest points scoring bidder.
- d) to the lowest acceptable tender or highest acceptable tender in terms of the point scoring system.
- e) to a bidder not scoring the highest points (based on objective grounds in terms of section 2 (1) (f) of the PPPFA) (where applicable).
- f) not to consider any bid with justifiable reasons.

A valid and binding contract with the successful tender/s will be concluded once the Employer has awarded the contract. The Employer will issue an appointment letter to the successful tenderer.



Contract: JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tender and Contract

Johannesburg Water SOC Ltd



CONTRACT NO: JW14302

CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

VOLUME 1 TENDER AND CONTRACT

Prepared by PMU PO Box 61542 Marshalltown 2107

> V1.0 August 2023

Employer:	Contractor:	5
Witness:	Witness:	



Contract No JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

Johannesburg Water

Volume 1 Tender and Contract Section T1 Tender and Contract

The Tenderer is to indicate in the "Submitted (Yes/No)" column in the below table that they have completed the required section of the tender document. Completion of this checklist will assist the Tenderer in ensuring that they have attended to all the required items for submission with this tender. Additionally, it is an absolute requirement that tenderers comply with National Treasury's CSD registration as well as SARS tax compliance requirements for contract award – refer T2.2.2. The below will form part of the tender document, the tenderers are therefore encouraged to submit the returnable and or documentation with their tender offer to avoid elimination especially with regards to what is stated in the Required for Tender Evaluation column or not obtaining points for Specific Goals. Tenderers are encouraged to ensure that their Tax status remains Tax Compliant on CSD throughout the process to avoid delaying the process or being eliminated at award stage. For infrastructure related projects. Tenderer must have a CIDB Active Status at the requested CIDB requirement at evaluation stage to avoid disqualification.

All documentation listed in the Checklist below shall form part of the Contract.

Table 1

Ref	Description of Returnable/s or Documentation that will form Part of	Required for Tender	Required for	Required After	Submitted (Yes/No)
	Contract and must therefore to be		Tender	Tender	(100/110)
	Completed and / or Submitted by the		Award	Award	
	Tenderer				
	Tender Cover:				
	Name of Tender	•			
	Contact Person	•			
	Telephone Number	•			
	Central Supplier Database Registration	•	•		
	CIDB Registration Number	•			
	COIDA Registration Number			•	
	Tax SARS PIN No.	•	•		
	MAAA No. for Tax Compliant Status		•		
	Mandatory Documents at Particular				
	Stage:		T		T.
	CIDB grading of 8CE or higher. Active	•			
	Status at the required CIDB grading or				
	higher at the time of Evaluation.	•			
	Mandatory Tender Briefing Meeting				
	Complete and sign the Form of Offer	•			
	Administrative Documentation:				
	MBD 1 - Invitation to Bid - Completed	•	•		
	and signed				
T2.2	MBD 4 - Declaration of interest -	•	•		
.4	Completed and signed				
	MBD 5 - Declaration for procurement	•	•		
	above R10 Million (all applicable taxes				
	included) Completed and signed.				
	MBD 6.1 - Preference Points Schedule –	•			
	Specific Goals and Price Points -				
TO 4	Completed and signed.	_			
T2.1	Signed Certificate of Authority to Sign	•			

Employer:	Contractor:	
Witness:	Witness:	



Contract No JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tender and Contract

Ref	Description of Returnable/s or Documentation that will form Part of Contract and must therefore to be Completed and / or Submitted by the Tenderer	Required for Tender Evaluation	Required for Tender Award	Required After Tender Award	Submitted (Yes/No)
	Acknowledgement of Project Tender	•	•		
	Drawings Acknowledgement of SHE Specification	•	_		
	& Annexures				
T2.2	MBD 8 - Bidder's past supply chain	•	•		
.4	management practices - Completed and				
T2.2	signed.		_		
.4	MBD 9 - Certificate of Independent Bid Determination – Completed and signed.	•	•		
	Municipal Rates and Taxes for the	•	•		
	Company - Current municipal rates for the company not older than 90 days (if leasing/renting, submitted proof such as lease agreement where premises are rented), OR Confirmation that suitable arrangements are in place for arrear municipal obligations with your local municipality OR Current municipal rates which is not older than 90 days or valid lease agreement with affidavit from owner of property in cases stated in Proof of Good Standing with Regards to Municipal Accounts document in the Tender.	•			
	Municipal Rates and Taxes - Current municipal rates for the directors of the entity not older than 90 days (if leasing/renting, submitted proof such of lease agreement where premises are rented), OR Confirmation that suitable arrangements are in place for arrear municipal obligations with your local municipality OR Current municipal rates which is not older than 90 days or valid lease agreement with affidavit from owner of property in cases stated in Proof of Good Standing with Regards to Municipal Accounts document in the Tender.	•	•		
	3-year financial statements (audited where applicable)	•	•		
	Any qualifications. If "Yes", reference to such qualification/s must be indicated on a cover letter. Please be aware that	•			

Employer:	Contractor:	
Witness:	Witness:	



Contract No JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tender and Contract

Ref	Description of Returnable/s or Documentation that will form Part of Contract and must therefore to be Completed and / or Submitted by the Tenderer	Required for Tender Evaluation	Required for Tender Award	Required After Tender Award	Submitted (Yes/No)
	qualification on the tender document may result in your tender being eliminated as the qualification may impede on the				
	ability to evaluate like with like.				
4.	Functionality Documentation:				
	Documentary Evidence Criteria 1 – (Contactable Reference Letters)	•			
	Documentary Evidence Criteria 2 – (Contactable Reference Letters)	•			
	Documentary Evidence Criteria 3 – (Contactable Reference Letters)	•			
	Documentary Evidence Criteria 4 – (CV)	•			
	Documentary Evidence Criteria 5 – (CV)	•			
	Documentary Evidence Criteria 6 – (CV)	•			
	Documentary Evidence Criteria 7 – (Page/pages of specific Method)	•			
5.	Specific Goals:		ı		
	Business located within the boundaries of COJ Municipality	•			
	Business owned by 51% or more-Women	•			
7.	Pricing Schedule:				
	Bill of Quantities/ Schedule of Quantities. completed in accordance with the award strategy	•			
	Alterations authenticated – Refer to Conditions of Tender	•			
8.	Terms and Conditions:				
	General Conditions of Contract	•			
	Special Conditions	•			
	Tender Data	•			
9.	Other Documents				ı
	Form of Acceptance (do not complete will only be completed after award)			•	
	Third Liability Insurance			•	
	Insurance of Works			•	
	Common Law Liability Insurance			•	
	Insurance of Construction Plant and Equipment			•	
	Valid Registration with Compensation for Occupation Injuries and Diseases Act			•	
	Performance Guarantee – where applicable for industrial related services			•	
	Bank Details Form			•	

Employer:	Contractor:	
Witness:	Witness:	



Signature: ___

Employer:

Witness:

Contract No JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

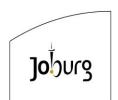
Johannesburg Water

Volume 1 Tender and Contract Section T1 Tender and Contract

Tenderers will be notified of such or any missing and incomplete documents and will be offered a period of 3 days to complete or submit those pages i.e., Municipal Bidding Documents (MBD), Authority to Sign and other documents that require completion and signatures that do not have a bearing on functionality, price and preference points for specific goals. Tenders that are received contrary to the above requirements will be disqualified after three (3) days period has lapsed. If locality is a specific goal in MBD6.1 – the requested documentation may not be used to allocate points for specific goals.

Date__

Contractor: Witness:



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

Johannesburg Water (SOC) Ltd



CONTRACT NO. JW14302

CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

VOLUME 1

TENDERING PROCEDURES

Employer:	Contractor:	
Witness:	Witness:	10



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

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CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

T1.1 TENDER DATA

T1.1.1 Conditions of Tender

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement (August 2019). (See www.cidb.org.za).

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

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

T1.1.2 Tender Data

The clause numbers in the Tender Data refer to the corresponding clause numbers in the Conditions of Tender.

The additional Conditions of Tender are:

Clause number	Tender Data
C.1.1	The Employer is, Johannesburg Water (SOC) Limited
C.1.2	The tender documents issued by the Employer comprise:
	Volume 1
	Tender Part 1: Tendering Procedures T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data
	Tender Part 2: Returnable Documents T2.1 List of Returnable Documents T2.2 Returnable Schedules, including the Enterprise Declaration Affidavit which may be bound in a separate volume.
	Contract Part 1: Agreement and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Forms of Securities
	Contract Part 2: Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantities/Schedule of Rates
	Volume 2A Contract Part 3: Scope of Work C3.1 Scope of Work C3.2 Particular Specifications
	Contract Part 4: Site Information

Employer:	Contractor:	
Witness:	Witness:	12



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause	Tender Data		
number			
	C4 Site Information		
	Volume 2B		
	Generic Specifications		
	Volume 3		
	Occupational Health, Safety and Environmental Specification and Environmental Management Plan		
	Volume 4 Tender Drawings		
C.1.4	The Employer's representative is: The Employer's representative is: Contact Person: Sijabuliso Tshuma Telephone: 011 688 1570		
	E-mail address: sijabuliso.tshuma@jwater.co.za		
	The SCM representative is		
	Contact Person: Nthabiseng More		
	Telephone: 011 688 1512		
	E-mail address: nthabiseng.more@jwater.co.za		
C.2.1	Eligibility criteria and requirements		
	CIDB registration and grading:		
	1) Only tenderers who are registered with the CIDB and were 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 tendered for an 8CE class of construction work, are eligible to submit tenders. Tenders must have an Active status at the required CIDB grading at time of tender evaluation for the bidder to meet the eligibility criteria and requirement.		
	Joint ventures are eligible to submit tenders provided that:		
	Failure to meet to Eligibility criteria and requirements will result in disqualification.		
C.2.7	Tenderers should forward their contact details to the contact persons as stated on the Tender Cover Page and Invitation to Tender so that they will be sent any communication pertaining to this tender.		

Employer:	Contractor:	
Witness:	Witness:	13



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data
C.2.8	Replace the contents of the clause with the following:
	"Request clarification of the tender documents, if necessary, by notifying the Employer's Officials indicated on the Tender Notice and Invitation to Tender in writing at least seven (7) working days before the closing time stated in the foregoing notice.
C.2.9	Add the following to the clause:
	"Accept that the submission of a Tender shall be construed as an acknowledgement by the Tenderer that they are satisfied with the insurance cover, the Employer will affect under the contract."
C.2.10.5	Add the following to the clause:
	"If no offer is made for an item, a line must be drawn through the space in pen.
	All prices and details must be legible / readable to ensure the tender will be considered for adjudication."
C.2.11	The evaluation on price alteration will be conducted as follows:
	Where the tender award strategy is to evaluate and award per item or category, the following must apply:
	 If there is an alteration in the rate but no alteration on the total for the item or category, the bidder will not be disqualified. If there is an alteration on the total for the item/s without authentication, bidders will only be disqualified for alteration per item or category.
	Where the tender award strategy is to evaluate and award total bid offer, the following must apply:
	 If there is an alteration on the rate, total for the line item, sub-total/ sum brought/carried forward for the section but no alteration on the total bid offer, the bidder will not be disqualified. If there is an alteration on the total bid offer on "Form of Offer" then the amount in words must be considered or vice-versa. If there is an unauthenticated alteration on the total bid offer and the amount in words is not authenticated, the bidders will be disqualified for the entire tender.
	Where the tender pricing schedule or bill of quantities is requesting rates/price from bidder/s without providing a total, the following will apply:
	(i) If there is an unauthenticated alteration on the unit rate/price the bidder must be disqualified. Please note: Corrections may not be made using correction fluid, correction tape or the like.

Employer:	Contractor:	
Witness:	Witness:	14



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data
C.2.12.1	Replace Contents
	Alternative offers will not be permitted.
C.2.12.2	Failure to complete and sign the form of offer in full will result in the elimination of the tender.
C.2.13.3	Each tender offer shall be submitted as an original. Tenderers are also requested to submit a soft copy in a USB (Tenderers who do not submit a soft copy will not be disqualified)
C.3.9	Replace Existing Clause
	Arithmetic Errors
	Construction related tenders JW undertakes to check the highest scoring bid for arithmetical errors and correcting them as follows:
	JW shall check for arithmetic errors using the following sequence: (i) Check the amount in words against the amount in figures on the Form of Offer, (ii) Check the Form of Offer against the Summary Schedule Total, (iii) Check the Section Sub-Totals per section against the Summary Total for summation errors, (iv) Check the Section Sub-Totals in the Summary Schedule against Section Sub-Totals in the Bill of Quantities.
	 (v) Check the Section Sub-Totals against the Item Totals for summation errors. (vi) Check the Item Totals against the product of the Item Rate and the Quantity Provided.
	If a bill of quantities or price schedule applies JW will request the bidder to correct the arithmetic errors as follows:
	(i) In respect of the Form of Offer, where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern. The Tenderer must be requested to adjust the amount in figures to correspond with the amount in words.
	JW will notify the Tenderer of all errors or omissions that are identified in the tender offer and either request the Tenderer to confirm the offer as tendered or JW will accept the corrected total of prices. Where the Tenderer elects to confirm the tender offer as tendered, correct the errors as follows:
	(i) 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.
	(ii) 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

Employer:	Contractor:	
Witness:	Witness:	15



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data			
	revise select	prices, the total of the prices shall govern, and the tenderer will be requested to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.		
		shall be held with Tenderer where there are pricing discrepancies, nd identified corrections are explained.		
	Tenderer is afforded a corrections in writing.	an opportunity to provide clarification, accept or reject identified		
	(i) In the event t evaluation.	hat the Tenderer accepts identified corrections, JW will proceed with		
		that the Tenderer rejects the identified correction(s), JW must review s's motivation and risks associated with the proposed change.		
	This is not an opportunit to the above will be disc	y for Tenderers to change the bid offer. A bidder that does not agree pualified.		
	Risk related to the Arithmetic Corrections shall be assessed. Where risks are identified, Tenderers shall provide JW with any other material or information that has a bearing on the tender offer, the Tenderer's commercial position (including joint venture agreements), quotations preferencing arrangements or samples of materials considered necessary by JW for the purpose of a full and fair risk assessment.			
	provided, by the time fo	uld the Tenderer not provide the material, or a satisfactory reason as to why it cannot be ided, by the time for submission stated in the JW request or fails to attend any meeting nich it has been formally invited to clarify any issue, the tender offer will be regarded as responsive.		
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on the Tenderer's offer package are:			
	Location of tender box:	Ground Floor Entrance		
	Physical address:	Johannesburg Water (SOC) Ltd Turbine Hall 65 Ntemi Piliso Street Newtown Johannesburg 2001		
	Identification details:	Tender reference number, Title of Tender and the closing date and time of the tender, as well as the Tenderer's name, their Authorised Representative's name, postal address and telephonic contact numbers.		

Employer:	Contractor:	
Witness:	Witness:	16



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data
C.2.13.6 & C.3.5	A two-envelope procedure will not be followed.
C.2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
C.2.16	The tender offer validity period is 90 days.
C.2.16.1	Add the following to the clause:
	"If the tender validity expires on a Saturday, Sunday or public holiday, the Tender Offer shall remain valid and open for acceptance until the closure of business on the following working day."
C.2.19	The Tenderer must provide access during working hours to his premises for inspections on request.
C.2.23	The Tenderer is required to submit with his tender:
	 Valid SARS Compliance status Pin for Tenders issued by the South African Revenue Services. Proof of CSD registration i.e. MA xxxxxxxx number A Certificate of Contractor Registration issued by the CIDB. Where the tendered amount inclusive of VAT exceeds R 10 million: Audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing. If the bidder is not required by law to prepare financial statements, then the bidder is required to submit their unaudited financial statements prepared by an independent accounting professional. Proof that the Tenderer and directors of the Tenderer are not in arrears for more than 90 days with municipal rates and taxes and municipal service charges, The latest municipal account is to be attached, or a signed copy of the valid lease agreement if the Tenderer
	or director of the Tenderer is currently leasing premises and not responsible for paying municipal accounts. i. Should the municipal statement that was submitted with the tender document before tender closing date and time be in arrears for more than 90 days at time of award, the tenderer will be requested to submit the latest municipal statement which shows that the Tenderer is not in arrears for more than 90 days. If the statement at that time is in arrears for more than 90 days, the Tenderer must submit before the stipulated deadline, the written proof of an approved arrangement with the municipality. ii. The proof may be a copy of the agreement or an updated municipal statement which reflects the arrangement.

Employer:	Contractor:	
Witness:	Witness:	17



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause	Tender Data
number	
	 iii. Should this tender be considered for award of the contract, based on proof of submission and should proof of such submission be found to be invalid, erroneous or inaccurate, the tenderer will no longer be considered for the award of the contract. iv. Statement must not be older than 90 days from the closing date of this tender. Attach latest municipal account statement behind this page. v. In cases where the director of the tenderer resides with their spouse, parent, partner or sibling the owner of the property that confirm where the director of the tenderer resides must submit an affidavit stating such and explaining the relationship. This would happen in the case where the submitted municipal statement or lease agreement is not in the name of the director of the tenderer. Point (i) will be applicable. vi. In cases where the business address of the tenderer is also the official residence of the director of the tenderer, the director of the tenderer must submit an affidavit stating such. Proof that the municipal statement is not in arrears for more than 90 days or a valid lease agreement must be submitted. Point (i) will be applicable.
	6) Particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract.
	7) A statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.
	8) Where a Tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such Tenderers must submit the Certificates of Contractor Registration in respect of each partner.
C.2.24	Add the following new clause:
	Canvassing and obtaining of additional information by Tenderers
	 No Tenderer shall make any attempt either directly or indirectly to canvass any of the Employers officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon. No Tenderer shall make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.
C.2.25	Add the following new clause:
iii. Should this tender be considered for award of the contract, based on proof of submission and should proof of such submission be found to be invalid, erroneou or inaccurate, the tenderer will no longer be considered for the award of the contract iv. Statement must not be older than 90 days from the closing date of this tende Attach latest municipal account statement behind this page. v. In cases where the director of the tenderer resides with their spouse, parent, partne or sibling the owner of the property that confirm where the director of the tenderer resides must submit an affidavit stating such and explaining the relationship. This would happen in the case where the submitted municipal statement or leas agreement is not in the name of the director of the tenderer. Point (i) will be applicable. vi. In cases where the business address of the tenderer is also the official residence the director of the tenderer must submit an affidaving stating such. Proof that the municipal statement is not in arrears for more than 9 days or a valid lease agreement must be submitted. Point (i) will be applicable. 6) Particulars of any contracts awarded to the tenderer by an organ of state during the peafive years, including particulars of any material non-compliance or dispute concerning the execution of such contract. 7) A statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic. 8) Where a Tenderer satisfies CIDB contractor grading designation requirements throug joint venture formation, such Tenderers must submit the Certificates of Contractor Registration in respect of each partner. C.2.24 Add the following new clause: Canvassing and obtaining of additional information by Tenderers Accept that: 1. No Tenderer shall make any attempt either directly or indirectly to canvass any of the Employers offic	
	Accept that the Employer is prohibited to award a tender to a person -
	b) If that person is not a natural person, of which any director, manager, principal

Employer:	Contractor:	
Witness:	Witness:	18



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data
	 "In the service of the state" means to be - i) a member of:-
C.2.26	Add the following new clause:
	Awards to close family members of persons in the service of the state
	"Accept that the notes to the Employer's annual financial statements must disclose particulars of any award of more than R 2 000 to a person who is a spouse, child or parent of a person in the service of the state (defined in clause C.2.25), or has been in the service of the state in the previous twelve months, including:
	a) The name of that person;
	b) The capacity in which that person is in the service of the state; and
	c) The amount of the award.
	To give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 – Returnable Documents must be completed in full and signed.
C.2.27	Add the following new clause:
	Tax Compliance In the case of a Joint Venture/Consortium the tax Compliance status Pin must be submitted for each member of the Joint Venture/Consortium."
C.2.28	Add the following new clause:
	 Tenderers will be notified of such missing and incomplete documents and will be offered a period of three (3) days to complete or submit those pages i.e., Municipal Bidding Documents (MBD), Authority to sign and other documents that require completion and signatures that do not have a bearing on functionality, specific goals and price.

Employer:	Contractor:	
Witness:	Witness:	19



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause number	Tender Data
	 Tenders that are received contrary to the above requirements will be disqualified after three (3) days period has lapsed. In cases where locality is a specific goal and the Tenderer did not submit the required documentation, the Tenderer upon submitting the municipal statement, lease agreement or letter from ward councilor confirming business address as per above, may not be eligible for points under specific goals if such documentation was not submitted with the tender document.
C.3.2	Replace the contents of the clause with the following: 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 seven (7) Working 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 collected tender documents.
C.3.4.2	Tenders will be opened in public soon after closing time and recording of received documents but not later than 11:00 at the tender office located at Turbine Hall, 65 Ntemi Piliso, Newtown, 2001, Ground Floor. Tenderers' names and total prices, where practical will be, read out.
C.3.11	Replace Contents with Returnable Schedule MBD 6.1 for evaluation criteria

Employer:	Contractor:	
Witness:	Witness:	20



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

C.1.1

Mandatory Requirements

Description Complied Yes No Complied Complied Yes No Completed and signed Form of Offer Completed and signed Form of Offer	Description		
			No
1			
2	Compulsory briefing meeting		
3	Completed and signed Form of Offer		

Tenderers who **FAIL** to meet the mandatory criteria or requirements of tender will result in disqualification.

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

Administrative Requirements

Description			Com	Complied	
Reference	Description	Requirement	Yes	No	
Certificate of Authority	Certificate of Authority or Board Resolution granting authority to sign.	Completed and signed certificate of authority to sign or signed board resolution			
MBD 1	Invitation to Bid Form	Complete and submit complete and signed MBD 1 Form.			
CSD	Central Supplier Database Registration	Provide proof of CSD registration.			
MBD 4	Declaration of Interest	Complete and submit complete and signed MBD 4 Form.			
MBD 5	Declaration of Procurement Above R10m (All Applicable Taxes Included)	Complete and submit signed MBD 5 Form.			
T2.3.2	Acknowledgement of Project Tender Drawings	Complete and submit signed T2.3.2 Form.			
T2.3.1	Acknowledgement of SHE Specification & Annexures	Complete and submit signed T2.3.1 Form.			
MBD 6.1	Preference Points Claim in Terms of The Preferential Procurement Regulations 2022	Complete and submit complete and signed MBD 6.1 Form.			

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



MBD 8	Declaration of Bidder's Past Supply Chain	Complete and submit complete and signed	
WDD 0	Management Practices	MBD 8 Form.	
MBD 9.	Certificate of Independent Bid Determination	Complete and submit complete and signed MBD 9 Form.	
Annexure – Proof of Specific Goals - Ref: 4.4	Valid BBBEE Certificate or certified copy thereof or a valid sworn affidavit	Submit applicable documentation with the tender submission	
Annexure T2.2.4	Municipal statement of account for Director/s (not older than three (03) months from the closing date of tender or a valid lease agreement at time of tender closure).	Submit applicable documentation with the tender submission	
Annexure T2.2.4	Municipal statement of account for Company (not older than three (03) months from the closing date of tender or a valid lease agreement at time of tender closure).	Submit applicable documentation with the tender submission	
Annexure	Joint Venture Consortium or equivalent Agreement signed by all parties.	Submit applicable documentation with the tender submission	

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

Functionality Requirements

CRITERIA NO	CRITERIA	EVIDENCE	SUB-CRIT	ERIA/CLAUSE	MAX SCORE	SCORE
		Supporting documents required include Signed Contactable Reference Letters as per T2.1.7 (or on client letterhead with only information that must		Tenderer has not completed any project.		0
1	Tenderers experience with respect to the construction of Reinforced	be there is the functionality) and Completion / Approval Certificates. Note: The attached contactable reference letter must be completed by the referee/previous client of the tenderer and included in the tender submission. Alternatively, the Clients letterhead	NUMBER OF REINFORCED CONCRETE DOME SHAPED RESERVOIRS OF	Tenderer has completed at least 1 project.	15	12
	Reservoirs with Dome Shaped Roofs of 10ML capacity or more. may be used provided it comp functionality requirements. A separ be completed for each refer requirement in the evaluation information provided will be verified to be false or misrepresented, punit will be instituted against the res	functionality requirements. A separate form must be completed for each reference as a requirement in the evaluation criteria. The information provided will be verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting in participating in any future	10ML OR MORE COMPLETED	Tenderer has completed more than 1 project.	15	15

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



CRITERIA NO	CRITERIA	EVIDENCE	SUB-CRITI	ERIA/CLAUSE	MAX SCORE	SCORE
		Supporting Documents Required include contactable Reference Letters as per T2.1.7 (Or on Client Letter Head with only information that must be there is the functionality) and		0 Completed Projects		0
	Tenderers experience with respect to the	Completion/ Approval Certificates. (Qualifying projects submitted in criteria (1) above will be counted in this section). Note: The attached contactable reference letter	NUMBER OF REINFORCED CONCRETE	1 - 2 Completed Projects		10
2	construction of Reinforced Concrete Reservoirs of 10ML capacity or more. must be completed by the referee/previous client of the tenderer and included in the tender submission. Alternatively, the Clients letterhead may be used provided it complies with the functionality requirements. A separate form must be completed for each reference as a requirement in the evaluation criteria. The information provided will be verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting in participating in any future government tenders.	submission. Alternatively, the Clients letterhead may be used provided it complies with the functionality requirements. A separate form must	RESERVOIRS OF 10ML OR MORE COMPLETED	3 - 4 Completed Projects	- 25	20
			More than 4 Completed Projects		25	

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



CRITERIA NO	CRITERIA	EVIDENCE	SUB-CRITE	ERIA/CLAUSE	MAX SCORE	SCORE
		Supporting documents required include contactable reference letters as per T2.1.7 (or on client letter head with only information that must be there is the functionality) and Completion / Approval certificates.	NUMBER OF COMPLETED STEEL PIPE PROJECTS OF	0 - 2 Completed Projects		0
3	Tenderers experience with respect to the construction of Steel Pipe	Note : The attached contactable reference letter must be completed by the referee/previous client of the tenderer and included in the tender submission. Alternatively, the Clients letterhead may be used provided it complies with the functionality requirements. A separate form must	DIAMETER 450MM OR MORE, CONSTRUCTION COST OF R15 MILLION OR	OR MORE, CONSTRUCTION COST OF R15 3 - 4 Completed Projects	15	12
	be completed for each reference requirement in the evaluation crite information provided will be verified and to be false or misrepresented, punitive requirement will be instituted against the respect including blacklisting in participating in a	be completed for each reference as a requirement in the evaluation criteria. The information provided will be verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting in participating in any future government tenders.	MORE AND INCLUSIVE OF CATHODIC PROTECTION	More than 4 Completed Projects		15

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



CRITERIA	EVIDENCE	SUB-CRIT	ERIA/CLAUSE	MAX SCORE	SCORE
Post Qualification Experience of Contract Manager Only Contract Managers with minimum Qualifications of: Bachelor's degree (Civil Engineering) OR Quantity Surveying/ Construction Management) equivalent or higher. AND Valid Professional Registration (Pr. Eng. / Pr. Tech.Eng) OR PrCPM / PrCM/ PrQS will obtain a score for experience of a Contract Manager. However, the time of registration of Contract Manager will not impact post	Tenderer must provide CV of Contract Manager in the format given in T2.1.9 Note: Tenderers may provide their own CVs but information provided should contain information required for functionality must be there Note: Copies of qualifications and valid registrations are to accompany the CVs. Note: The information provided will be verified by requesting certified copies from successful bidder and if found to be false punitive measures will be effected.	NUMBER OF PROJECTS INVOLVING REINFORCED CONCRETE RESERVOIR CONSTRUCTION AND / OR BULK STEEL PIPE WORK COMPLETED AS CONTRACT MANAGER	0 - 2 Completed Projects 3 - 4 Completed Projects 5 - 6 Completed Projects More than 6 Completed Projects		0 5 8

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



NO	CRITERIA	EVIDENCE	SUB-CRITERIA/CLAUSE		MAX SCORE	SCORE
	Post Qualification Experience of Safety Officer			0 Completed Projects		0
	Only Safety Officers with minimum qualifications of: National Diploma (Safety Management)/National	Tender must Provide CV of Safety Officer in the format given on T2.1.9		1 - 2 Completed Projects		4
6	Diploma (Environmental Health/Environmental Science/ Environmental Management) /SAMTRAC / SHEOMTRAC/	Note: All Civil Engineering related projects will be considered. Note: Copies of qualifications and valid registrations are to accompany the CVs.	NUMBER OF CIVIL/STRUCTURAL ENGINEERING PROJECTS	3 - 4 Completed Projects	10	8
	SHEMTRAC / MESHTRAC /NEBOSH / Safety Officers Course (NQF 5) or more, AND	Note: The information provided will be verified by requesting certified copies from successful bidder and if found to be false punitive measures will be effected	COMPLETED AS SAFETY OFFICER	More than 4 Completed Projects		40
	Valid Professional Registered with SACPCMP in the Construction Health and Safety Sector will be considered	енескей				10

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



CRITERIA NO #	CRITERIA	EVIDENCE	SUB-CRITERIA/CLAUSE	MAX SCORE	SCORE
		Tenderer must provide Site Specific Method Statement Which Addresses the following sections:	Method Statement not submitted		0
		Approach statement and Introduction (Minimum 1 Page - Maximum 2 Pages) which illustrates understanding of the scope. This is inclusive of the following major components, - construction of 20ML Reservoir;	1 - 2 of the required sections are covered by the Method Statement in line with the guidelines and are specific to Carlswald Reservoir and Associated Pipelines		5
7	Site Specific	 construction of chambers in the reservoir complex; installation of all associated pipework, including inlet, outlet and bypass, and generator and telemetry Quality Control Plan (Minimum1 Page - Maximum 4 Pages)	At least three of the required sections are covered by the Method Statement in line with the guidelines and are specific to Carlswald Reservoir and Associated Pipelines	10	8
Method Stateme	Method Statement	including all necessary standards to be used, resources available and procedures to ensure quality. This is inclusive of the following major components, - construction of 20ML Reservoir; - construction of chambers in the reservoir complex; - installation of all associated pipework, including inlet, outlet and bypass, and - generator and telemetry	All four of the required sections are covered by the Method Statement in line with the guidelines and are specific to Carlswald Reservoir and Associated Pipelines		10
		Safety Control (Minimum 1 Page - Maximum 3 Pages) with respect to working at heights and confined spaces. This is inclusive of the following major components, - construction of 20ML Reservoir;			

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

	TOTAL	100
	MINIMUM QUALIFYING SCORE	80
 construction of chambers in the reservoir complex; installation of all associated pipework, including inlet, out and bypass, and generator and telemetry Project Programme/schedule (On MS Projects or any oth Gantt chart as Annexure) outlining critical path, aligned to t scope of works, aligned to the contractual timelines, a including all contractual dates. This is inclusive of the following major components, construction of 20ML Reservoir; construction of chambers in the reservoir complex; installation of all associated pipework, including inlet, outled and bypass, and generator and telemetry 	er ne nd ng	

NOTE 1: Where applicable, foreign qualifications MUST be accompanied by a SAQA verification certificate. Failure to submit SAQA verification certificate will lead to that qualification not being considered for allocation of points for that criterion.

NOTE 2: When an uncertified copy of professional registration is submitted and the requirement was to submit a certified copy, JW will verify the validity of the registration on the issuing bodies or institution's website. If the verification is confirmed on the website, the bidder meets the criteria. This will only be applicable for the recommended bidders.

NOTE 3: The time of registration of Contract Manager, Site Manager and Safety Officer will not impact post qualification number of projects.

NOTE 4: The information provided by bidders will be verified and if found to be false, punitive measures will be affected.

ECSA: Engineering Council of South Africa

SACPCMP: South African Council for the Project and Construction Management Professions

SAMTRAC: Safety Management Training Course

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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NEBOSH: National Examination Board in Occupational Safety and Health

SHEOMTRAC: Safety Health Environmental Occupational Management Training Course

SHEMTRAC: Safety Health Environmental Management Training Course MESHTRAC: Management Environmental Safety Health Training Course

Employer:	Contractor:	
Witness:	Witness:	

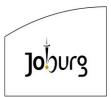


CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Section 11 Tendering Procedures						
Clause Number	Tender Data					
	4. STAGE FOR PRICE AND PREFERENCE POINTS EVALUATION:					
	4.1. Pricing					
	The following aspects will be considered in the financia	al offer:				
	 a. Costing for all items as described in the Pricing Schedule and applicable Strategies Review of financial offer and discrepancies between total and calculations. 					
	b. Identify any parameters that may have a bearin contract period, price escalations or adjustments					
	c. The 90/10 preference point system will be applicable in this tender. Whereby 90 points will be allocated to price and 10 points will be allocated to the set specific goals per category as outlined on the pricing schedule. The bidder scoring the highest in terms of price and specific goal will be recommended for that specific category.					
	4.2. Award and Allocation Strategy:					
	AWARD The tender will be awarded to the I terms of price and Specific Goals	nighest scoring bidder in				
	ALLOCATION The tender will be allocated to the terms of price and Specific Goals	highest scoring bidder in				
	4.3. The maximum preference points for this bid	are allocated as follows:				
		POINTS				
	PRICE	90				
	SPECIFIC GOALS	10				
	Total points for Price and SPECIFIC GOALS	100				

Employer:	Contractor:	
Witness:	Witness:	33



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause Number	Tender Data					
	SPECIFIC GOALS					
	In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations 2022, 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.					
	Specific goals may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability.					
	Race:					
	I. Ownership by black people					
	II. Black Designated Group:					
	Ownership by black people that are unemployed					
	Ownership by black people who are youth					
	Ownership by black people living in rural or underdeveloped areas or townships					
	Ownership by black people with disabilities					
	Ownership by black people who are military veterans					
	Cooperative owned by black people					
	Gender:					
	III. Persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of gender are women. Ownership by persons that are classified as female or women according to the Department of Home Affairs of South African.					
	Disability:					
	IV. Persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of disability are disabled persons.					
	Reconstruction and Development Programme (RDP) objectives as published in Government Gazette No. 16085 dated 23 November 1994 i.e.,					
	Local Manufacture:					
	I. Promotion of procurement of locally manufactured goods in South Africa to promote job creation in light of the high unemployment rate in South Africa which has a greater impact previously disadvantaged individuals and black youth.					

Employer:	Contractor:	
Witness:	Witness:	34

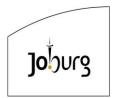


CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Clause	Tender Data					
Number	Tender Data					
	Locality:					
	I. Promotion of procurement from local business in the geographical areas that JW operate in. This is also directed at creating employment in the areas JW operate in. The BSC may allocate points as follows:					
	Promotion of enterprises located in the Gauteng Province					
	 Promotion of enterprises located in a specific region within COJ (the 7 regions. A to G) 					
	 Promotion of enterprises located in the City of Johannesburg municipality 					
	 Promotion of enterprises located rural or underdeveloped areas of townships. 					
	QSE					
	I. Promotion of procurement from QSE's that are black owned.					
	EME:					
	I. Promotion of procurement from EME's that are black own.					
	SUB-CONTRACTING: Promotion of a company previously owned by a Historically Disadvantaged Individuals (HDI).					
	Consider sub-contract only in cases where there are no company which can meet any of the specific goals. Check if the portion of the work cannot be subcontracted in terms of specific goals.					
	One goal may be chosen, or a combination of goals may be decided upon including a sub-goal i.e., owned by black people that are disabled etc.,					
	JOINT VENTURE, CONSORTIUM OR EQUIVALENT:					
	For Joint Venture Agreements, Consortiums or equivalent, the agreement must show percentages of ownership and work to be completed by each party. This agreement must form part of the tender submission.					
	To determine the Joint Venture, Consortium or equivalent score for specific goals, JW will look at the consolidated BBBEE certificate to determine the points for specific goals that will be awarded to the tenderer. If a consolidated BBBEE certificate is not submitted, the parties to the joint venture, consortium or equivalent must submit their individual BBBEE certificates issued by a SANAS accredited verification agency or the documents listed below on 4.6 and the joint venture, consortium or equivalent agreement in order for JW to determine the proportional points for specific goals.					

Employer:	Contractor:	
Witness:	Witness:	35



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Documentation to be provided:					
	Documentation to be provided:				
JV, Consortium, or equivalent agreement					
Consolidated BBBEE certificate issued by an SANAS accredited verification agency. Certificate must be valid					
Table 1:					
The specific goals allocated points in terms of this tender allocated (90/10 system)					
Business owned by 51% or more-Women	6				
Business located within the boundaries of COJ Municipality	4				
Total 1	0				
TATE A RIC (NE V/EDIEI/ AT	ION THE				
SPECIFIC GOALS – ANY ONE OR A COMBINATION OF ANY MEANS OF VERIFICAT MAY BE SELECTED OF COMBINATION THERE	R A				
COMBINATION OF ANY Business owned by 51% or more-Women- WAY BE SELECTED OF COMBINATION THERE Valid BBBEE Certificate	R A OF issued by verification				
Business owned by 51% or more-Women- WAY BE SELECTED OF COMBINATION THERE Valid BBBEE Certificate SANAS accredited to the second seco	R A OF issued by verification BEE				
Business owned by 51% or more-Women- Valid BBBEE Certificate SANAS accredited vagency or DTI/CIPC BBE Certificate for Exempt	R A EOF issued by verification BEE oted Micro oath, OF documen ownership				
Business owned by 51% or more-Women- Walid BBBEE Certificate SANAS accredited vagency or DTI/CIPC BBE Certificate for Exempte Enterprises or Affidavit sworn under •CIPC registration showing percentage of and share certificate	R A EOF issued by verification BEE oted Micro oath, OF documen ownership				
Business owned by 51% or more-Women- Business owned by 51% or more-Women- Valid BBBEE Certificate SANAS accredited vagency or DTI/CIPC BBE Certificate for Exempte Enterprises or Affidavit sworn under •CIPC registration showing percentage of and share certificate applicable	R A EOF issued b verification BEE oted Micro oath, Of documer ownershi te where unt / valid from the				

Employer:	Contractor:	
Witness:	Witness:	36





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CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

Clause Number	Tender Data					
	Note: The joint venture, conso determine the proportional po	•	ent agreement in order for JW to goals			
	Example, If there are two parties in a Joint Venture with a 50:50 ownership of the Joint Venture and one party is located within the boundaries of COJ and one is located in Tshwane, if one of the goals is locality and has total points of 4, the JV will only be entitled the proportional points of 2. 4.5. The following are the requirements for the Sworn Affidavit it terms of the BBBEE Sector Codes of Good Practise:					
	Affidavit Prescribed Category Financial Threshold Formats					
	Generic Enterprises					
		BO QSE	Between R10m and R50m			
		во еме	Less than R10m			
	Sector Specific Enterprises	-1				
	BO QSE Between R10m and R50m					
	Less than R10m					
	Construction Sector Code					
	EME Less than R3m Contractor					
		BO EME BEP	Less than R1.8m			
	Financial Sector Code					
		BO QSE	Between R10m and R50m			
		BO EME	Less than R10m			
	Information Communication	Technology Sec	tor Code (ICT)			
		BO QSE	Between R10m and R50m			
		BO EME	Less than R10m			
	Marketing, Advertising & Communication Sector Code (MAC)					
	> Public Relations BO QSE Between R5m and R10m					
	> Marketing, Advertising & Communications	BO EME	Less than R5m			
	Property Sector Code					
	> Service-based	BO QSE	Between R5m and R10m			

Employer:	Contractor:	
Witness:	Witness:	37



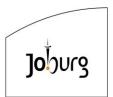
CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

		Occilon 11 Tel	naering Procedures	
Clause Number	Tender Data			
			EME	Less than R5m
	> Agency-based		BO QSE	Between R2.5m and R35m
	> Asset-based		EME	Less than R2.5m
			BO QSE	Between R80m and R400m
	Tourism Se	ctor Code		
			BO QSE	Between R5m and R45m
			BO EME	Less than R5m
	Specialised	I Enterprises		
			BO QSE	Between R10m and R50m
			BO EME	Less than R10m
	b) Bidde subm accre c) Bidde valid s	or in a similar formers who do NOT quait B-BBEE verificated dited by SANAS. It is who fail to submesworn affidavit or vast for specific goals.	at complying with alify as EME's and on certificates that it a certified copy alid DTI / CIPC B-late	Iffidavit issued by the DTIC or the commissioner of oath Act. I QSE's as outlined in 4.5, must trare issued by an Agency of their valid B-BBEE certificate or BBEE certificate will score zero E Certificate must comply with the
	requirements no 16 of 1963	outlined in the Jus 3 and its Regulation	tices of the Peace is promulgated in	e and Commissioners of Oaths Act, Government Notice GNR 1258 of oners of Oaths Act, No. 16 of
	(i)	The deponent sha commissioner of		ation in the presence of the
	(ii)	deponent has ack	knowledged that heclaration and the	e COA shall certify that the e knows and understands the COA shall state the manner, place,
	(iii)	business address the area for which	below his signatu	and print his full name and ure; and state his designation and cointment, or the office held by him io.

Employer:	Contractor:	
Witness:	Witness:	38



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

Clause Number	Tender Data
	(iv) Copy of certified copies will not be accepted.
	N.B. A tenderer failing to submit proof of specific goals claimed as per 4.4 will not be disqualified but will be allocated zero points for specific goals and will be allocated points for pricing.
	ADJUDICATION USING A POINT SYSTEM
	(a) The bidder obtaining the highest number of total points will be awarded the contract.
	(b) Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;.
	(c) Points scored must be rounded off to the nearest 2 decimal places.
	(d) In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of points for specific goals.
	(e) However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for specific goals, the successful bid must be the one scoring the highest score for functionality.
	(f) Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.
	POINTS AWARDED FOR PRICE
	THE 90/10 PREFERENCE POINT SYSTEMS
	A maximum of 90 points is allocated for price on the following basis:
	90/10
	$Ps = 90 \left(1 - \frac{Pt - P\min}{P\min} \right)$ Where
	Ps = Points scored for comparative price of bid under consideration
	Pt = Comparative price of bid under consideration
	Pmin = Comparative price of lowest acceptable bid
	Add to the existing clause:
	Tender offers will only be accepted if:
	 a) the tenderer submits a valid SARS tax Compliance status Pin for tenders issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;

Employer:	Contractor:	
Witness:	Witness:	39



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T1 Tendering Procedures

Clause Number	Tender Data
	b) Proof of CSD registration ie MA xxxxx number;
	 the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part T2.2.22 of this procurement document
	d) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
	e) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
	 f) the tenderer has not: i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect;
	g) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract;
	h) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
	i) the Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely; and
	 j) the tenderer: i) has sufficiently substantiated his experience in this type work; ii) has the required and experienced key personnel; and iii) Owns the primary equipment to effectively and efficiently execute the work.
C.3.17	The number of paper copies of the signed contract to be provided by the Employer is one.
	There are no additional conditions of tender.

--- END OF PART ---

Employer:	Contractor:	
Witness:	Witness:	40



Contract: JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR Volume 1 Tender and Contract Section T2 Returnable Documents



Johannesburg Water (SOC) Ltd



CONTRACT NO. JW14302 CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

VOLUME 1

RETURNABLE DOCUMENTS AND SCHEDULES

Employer:	Contractor:	
Witness:	Witness:	

RD.1 41



T2.2.1

T2.2.2

Contract JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



RD.55

Volume 1 Tender and Contract Section T2 Returnable Documents

T2.1 LIST OF RETURNABLE DOCUMENTS

dustry Development Board

SARS Tax Compliance Status Pin and

Proof of CSD registration i.e. MA xxxxxxxxx number

The tende		nplete the following returnable documents:	<u>Page</u>
1. Retu	ırnable Schedı	ules required for tender evaluation purposes	
T2.1.1	Record of add	denda to tender documents	RD.5
T2.1.2	Certificate of	Authority	RD. 6
T2.1.3	Compulsory E	Enterprise Questionnaire	RD.11
T2.1.4	Preferential P	rocurement	
	MBD 6.1	Preference points claim form in terms of the preferential procurement regulations	RD.13
	MBD 4	Declaration of any potential conflict of interest	RD.20
	MBD 8	Declaration of bidder's past Supply Chain management practices	RD.22
	MBD 5	Declaration for Procurement above R10 Million (VAT Included)	RD.24
	MBD 9	Certificate of independent bid determination	RD.26
T2.1.5	Proposed qu	ualifications	RD.29
T2.1.6	Schedule of	the Tenderer's experience	RD.30
T2.1.7	Contactable	reference template	RD.31
T2.1.8	Schedule of	key personnel	RD.44
T2.1.9	Curriculum v	ritae of key personnel	RD.45
T2.2 LIS	F OF RETUR	NABLE DOCUMENTS	
Docum 2. Othe		equired only for tender evaluation purposes	<u>Page</u>

Employer:	Contractor:	
Witness:	Witness:	

Certificate of Contractor Registration issued by the Construction In- RD.54





Volume 1 Tender and Contract Section T2 Returnable Documents

T2.3 LIST OF RETURNABLE SCHEDULES

<u>Docume</u>	<u>nt</u>	<u>Page</u>
4. Other	documents that will be incorporated into the contract	
T2.3.1	JW 6.4 Returnable Annexure A – SHE Acknowledgment Form	RD.56
T2.3.2	JW 6.5 Returnable Annexure B: Acknowledgement of Tender	RD.57
	Drawings	

NOTE: The Tenderer is required to complete each and every schedule listed above to the best of his ability as the evaluation of tenders and the eventual contract will be based on the information provided by the tenderer.

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

T2.1 LIST OF RETURNABLE DOCUMENTS

Docum	<u>ent</u>	<u>Page</u>
1. Retu	rnable Schedules required only for tender evaluation purposes	
T2.1.1	Record of addenda to tender documents	RD.5
T2.1.2	Certificate of authority	RD.6
T2.1.3	Compulsory Enterprise Questionnaire	RD.11
T2.1.4	Preferential Procurement	RD.13
T2.1.5	Proposed qualifications	RD.29
T2.1.6	Schedule of the Tenderer's experience	RD.30
T2.1.7	Contactable reference template	RD.31
T2.1.8	Schedule of key personnel	RD.44
T2.1.9	Curriculum vitae of key personnel	RD 45

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

T2.1.1 Record of Addenda to Tender Documents

We co fer, an	nfirm that the following commonending the tender documents	unications received from the Employer before the submission of this tender of, have been taken into account in this tender offer:
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
Attach	additional pages if more spac	e is required.
	Signed	Date
	Name	D . W
ד	enderer	

Employer:	Contractor:	
Witness:	Witness:	



i.

Contract JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T2 Returnable Documents

T2.1.2 Certificate of Authority

Certificate For Company

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

(I) COMPANY	(II) CLOSE CORPO- RATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PRO- PRIETOR

I,	, chairperson of the Board of Directors of
	, hereby confirm that by resolution of the Board
(copy attached) take	en on, Mr/Ms
acting in the capacity	/ of, was authorized to sign all
documents in conne	ction with the tender for Contract No. JW14060R and any contract result-
ing from it on behalf	of the company.
Chairman:	
As Witnesses	1
7.0 11111100000.	
	2
Date:	

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T2 Returnable Documents

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

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

iii. Certificate For Partnership

۷	We, the undersigned, being the key partners in the business trading as,			
		, hereby autho	orize Mr/Ms	,
а	cting in the capacity of		, to sign all documents in	connection
١	with the tender and any	contract resulting from it on our	behalf.	
	NAME	ADDRESS	SIGNATURE	DATE

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

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

v. Certificate For Joint Venture

This Returnable Sch	nedule is to be completed by joint ver	ntures.
We, the undersigned	d, are submitting this tender offer in c	Joint Venture and hereby authorise Mr/Ms
	, authorise	ed signatory of the company
		, acting in the capacity of lead
	locuments in connection with the ten	der offer and any contract resulting from i
on our behalf.		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		
		Signature
		Name
		Designation
		Signature
		Name
		Designation
		Signature
		Name
		Designation
		Signature
		Name
		Designation

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

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

vii. Certificate For Sole Proprietor
I,, hereby confirm that I am the sole owner of the Business
trading as
Signature of Sole owner:
As Witnesses:
1
2
Date:

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

T2.1.3 Compulsory Enterprise Questionnaire

		urnished. In the case of a joint ver completed and submitted.	nture, separat	e enterprise qu	uestionnaires
Section 1:	Name of enterprise:				
Section 2:	VAT registration nur	nber, if any:			
Section 3:	CIDB registration nu	ımber, if any:			
Section 4:	Particulars of sole p	roprietors and partners in partne	erships		
Name*		Identity number*	Personal inc	ome tax num	ber*
* Complete or	nly if sole proprietor or par	tnership and attach separate page if m	ore than 3 partn	ers	
Section 5:	Particulars of compa	anies and close corporations			
Company re	gistration number				
Close corpo	ration number				
-		xxxxxxx number			
SARS Tax C	Compliance status Pin r	number			
Indicate by r manager, pr the last 12 m		oxes with a cross, if any sole properties with a cross, if any sole properties with a company or close any of the following:		currently or has	s been within
□ a mem □ a mem tional 0 □ a mem nicipal	ber of any provincial le ber of the National Ass Council of Province ber of the board of dire	gislature or provincia embly or the Na- ment Act, 1 ctors of any mu- a member o or provincia	al public entity on meaning of the 999 (Act 1 of 2 f an accountinal public entity e of Parliamen	or constitutional Public Finance 1999) g authority of a	al institution be Manage- any national
If any of the	e above boxes are ma	rked, disclose the following:			
ner, direct	sole proprietor, part- tor, manager, princi-	Name of institution, public off or organ of state and position			riate column
pai snaren	nolder or stakeholder			Current	Within last 12 months
*insert separa	ite page if necessary			<u> </u>	<u> </u>

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

Indicate by marking the relevant boxe in a partnership or director, manager,	Idren and parents in the service of the states with a cross, if any spouse, child or parent of principal shareholder or stakeholder in a compa months been in the service of any of the follows:	f a sole prop pany or close	
 a member of any municipal coun a member of any provincial legis a member of the National Assem National Council of Province a member of the board of director municipal entity an official of any municipality or rentity 	lature provincial public entity or of within the meaning of the Public Act, 1999 (Act 1 of 1999) a member of an accounting a or provincial public entity	constitutional ic Finance Ma uthority of a	institution anagement ny national
Name of spouse, child or parent	Name of institution, public office, board	Status of s	ervice
	or organ of state and position held	(tick appro	priate col-
		umn) Current	Within last 12 months
*insert separate page if necessary			
insert separate page in necessary			
	e / she is duly authorised to do so on behalf of		
my / our tax matters are in order;	the tax compliance status from the South Afric	can Revenue	Services that
ii) confirms that the neither the name	of the enterprise or the name of any partner,		
	ises, or may exercise, control over the enterpri n terms of the Prevention and Combating of Co		
	director or other person, who wholly or partly e		
	s, has within the last five years been convicted		
offers and have no other relationsl	ited, linked or involved with any other tendering hip with any of the tenderers or those responsi	g entities sub ble for compi	lling the scope
of work that could cause or be inte	rpreted as a conflict of interest; and	•	
belief both true and correct.	uestionnaire are within my personal knowledg	e and are to	the best of my
20.0. 20 1 0			
Signed	Date		
Name	Position		
Enterprise name			
·			

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

Volume 1 Tender and Contract
Section T2 Returnable Documents



MBD 6.1

T2.1.4 Preferential Procurement

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCURE-MENT 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 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- **1.2** The applicable preference point system for this tender is the 90/10 preference point system.
- **1.3** Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
 - a) Price; and
 - b) Specific Goals.

The maximum points for this tender are allocated as follows:

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

- **1.4** Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.5 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

2. **DEFINITIONS**

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1 POINTS AWARDED FOR PRICE

3.1.1 THE 90/10 PREFERENCE POINT SYSTEMS

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

90/10

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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:

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Business owned by 51% or more-Women	6	
Businesses located within the boundaries of COJ municipality	4	
Total	10	

5.1	Name of company/firm
5.2	Company registration number:
5.3	TYPE OF COMPANY/ FIRM
	□ Partnership/Joint Venture / Consortium
	☐ One-person business/sole propriety

- Close corporationPublic Company
- Personal Liability Company
- □ (Pty) Limited
- □ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

- 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;

5. DECLARATION WITH REGARD TO COMPANY/FIRM

- 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

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

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				
SURNAME AND NAME:				
DATE:				
ADDRESS:				
ADDRESS.				

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

5.5	SUB-CONTRACTING						
5.5.1	Will any portion of the contract be sub-contracted? (Tick applicable box)						
	YES NO						
5.5.2	If yes, indicate: i) What percentage of the contract will be subcontractedii) The name of the sub-contractor(s):	i) What percentage of the contract will be subcontracted(minimum of 11%)					
	iii) The black shareholders of the sub-contractor(s):						
	iv) Whether the sub-contractor(s) is an EME or QSE (Tick applicable box) YES NO V) Specify, by ticking the appropriate box, if subcontracting value terms of Preferential Procurement Regulations, 2022:	with an ente	erprise in				
Desi	gnated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √				
Black	people						
Black	people who are youth						
People	e who are women						
Black	people with disabilities						
Black	people living in rural or underdeveloped areas or townships						
Coope	erative owned by black people						
Black	people who are military veterans						
	OR		1				
Any E	ME						
Any Q	SE						

Employer:	Contractor:	
Witness:	Witness:	
		57





Volume 1 Tender and Contract Section T2 Returnable Documents

5.6	DECLARATION WITH REGARD TO COMPANY/FIRM			
5.6.1	Name of company/firm:			
5.6.2	VAT number registration number:			
5.6.3	Company registration number:			
5.7	TYPE OF COMPANY/ FIRM			
	 □ Partnership/Joint Venture / Consortium □ One person business/sole propriety □ Close corporation □ Company □ (Pty) Limited [TICK APPLICABLE BOX]' 			
5.8	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES			
5.9	COMPANY CLASSIFICATION			
	 Manufacturer Supplier Professional service provider Other service providers, e.g. transporter, etc. [TICK APPLICABLE BOX] 			
5.10	MUNICIPAL INFORMATION Municipality where business is situated: Registered Account Number: Stand Number:			
5.11	Total number of years the company/firm has been in business:			
5.12	I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the Specific Goals in MBD 6.1 qualifies the company/ firm for the preference(s) shown and I / we acknowledge that			
	v) The information furnished is true and correct;			
	vi) In the event of a contract being awarded as a result of points claimed as shown in MBD 6.1, the contractor is required to furnish documentary proof as requested in the Tender Data to the satisfaction of the purchaser that the claims are correct;			
	vii) If the specific goals points have been claimed or obtained on a fraudulen basis or any of the conditions of contract have not been fulfilled, the purchase			



Volume 1 Tender and Contract Section T2 Returnable Documents

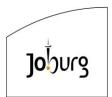


may, in addition to any other remedy it may have -

- (a) Disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

WITNESSES		
1	SIG	GNATURE(S) OF BIDDERS(S)
2	DATE:	
	ADDRESS	

Employer:		Contractor:	
Witness:		Witness:	
<u> </u>	<u> </u>	<u> </u>	50



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract
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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, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3.1	Full Man	ne of bidder or his or her representative:	
3.2		Number	
3.3		occupied in the Company (director, trustee, hareholder²):	
3.4		ny Registration Number:	
3.5	Tax Ref	erence Number:	
3.6	,	gistration Number:	
3.7		nes of all directors / trustees / shareholders members, their individual id	
0.0		s and state employee numbers must be indicated in paragraph 4 below	
3.8	Are you 3.8.1	presently in the service of the state? If yes, furnish particulars.	YES / NO
		ii yes, iuriisii particulais.	
		Regulations: "in the service of the state" means to be –	
	(a)	a member of –	
		(i) any municipal council;(ii) any provincial legislature; or	
		(iii) the national Assembly or the national Council of provinces;	
	(b)	a member of the board of directors of any municipal entity;	
	(c)	an official of any municipality or municipal entity;	
	(d)	an employee of any national or provincial department, national o	
		public entity or constitutional institution within the meaning of the nance Management Act, 1999 (Act No.1 of 1999);	Public Fi-
	(e)	a member of the accounting authority of any national or provincial p	ublic entity:
	(0)	or	,,
	(f)	an employee of Parliament or a provincial legislature.	
		nolder" means a person who owns shares in the company and is active management of the company or business and exercises control over the	
3.9		u been in the service of the state for the past twelve months?	YES/NO
	3.9.1	If yes, furnish particulars	
3.10		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?	VEC / NO
			YES / NO
	3.10.1	If yes, furnish particulars	





Volume 1 Tender and Contract Section T2 Returnable Documents

	3.11	persons			en any other bidder and any he evaluation and or adjudi- YES / NO	
		3.11.1	, ,			
	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	•			
	3.13		v spouse, child or parent of olders or stakeholders in se		ustees, managers, principle YES / NO	
		3.13.1	•			
	3.14	of this o	or any of the directors, trust	tees, managers, principle sh in any other related compa	nareholders, or stakeholders nies or business whether or YES / NO	
		3.14.1	·			
4.	Full	details o	f directors / trustees / me	embers / shareholders.		
		F	ull Name	Identity Number	State Employee Number	
		Si	gnature		Date	
			Capacity		Name of Bidder	
	ployer:			Contractor:		
Wit	ness:			Witness:		



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T2 Returnable Documents

MBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 The bid of any bidder may be disregarded if that bidder, or any of its directors have
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 2 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

ltem	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's data-	Yes	No
	base as companies or persons prohibited from doing business with the public sector?		
	(Companies or persons who are listed on this database were informed in		
	writing of this restriction by the National Treasury after the audi alteram par-		
	tem rule was applied).		
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Default-	Yes	No
	ers in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No. 42 of 2004)3		
	ities Act (No 12 of 2004)? To access this Register, enter the National Treasury's website,		
	www.treasury.gov.za, click on the icon "Register for Tender Defaulters"		
	or submit your written request for a hard copy of the Register to fac-		
	simile number (012) 3265445.		
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including	Yes	No
	a court outside of the Republic of South Africa) for fraud or corruption during		
4.3.1	the past five years?		
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated	Yes	No
	during the past five years on account of failure to perform on or comply with the contract?		
4.4.1	If so, furnish particulars:		

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

CERTIFICA	TION
I, THE UNDERSIGNED (FULL NAME)	
CERTIFY THAT THE INFORMATION FURNISH TRUE AND CORRECT.	HED ON THIS DECLARATION FORM IS
I ACCEPT THAT, IN ADDITION TO CANCELL BE TAKEN AGAINST ME SHOULD THIS DEC	· · · · · · · · · · · · · · · · · · ·
Signature	Date
Position	Name of Bidder

Employer:	Contractor:	
Witness:	Witness:	
		63

RD.23





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MBD 5 DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

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

1	Are yo	ou by law required to prepare annual financial statements for auditing? YES / NO
	1.1	If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years
2		bidder is not required by law to prepare annual financial statements for auditing, shall be required to furnish their Annual Financial Statements - for the past three years, or since their establishment if established during the past three years
	2.1	Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days? YES / NO
	2.2	If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.
	2.3	If yes, provide particulars
3	includ	ny contract been awarded to you by an organ of state during the past five years, ing particulars of any material non-compliance or dispute concerning the execution the contract? YES / NO
	3.1	If yes, furnish particulars
4	what _l	ny portion of goods or services be sourced from outside the Republic, and, if so, portion and whether any portion of payment from the municipality / municipal entity ected to be transferred out of the Republic? YES / NO
	4.1	If yes, furnish particulars





Volume 1 Tender and Contract Section T2 Returnable Documents

CERTIFICATION

I, THE UNDERSIGNED (NAME)	
CERTIFY THAT THE INFORMATION FURNISHED CORRECT	ON THIS DECLARATION FORM IS
I ACCEPT THAT THE STATE MAY ACT AGAINST PROVE TO BE	ME SHOULD THIS DECLARATION
FALSE.	
Signature	Date
Position	Name of Bidder

Employer:	Contractor:	
Witness:	Witness:	
		65





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MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1. This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging)². Collusive bidding is a pe se prohibition meaning that it cannot be justified under any grounds.
- Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bidrigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (MBD9) must be completed and submitted with the bid:

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.

Employer:	Contractor:	
Witness:	Witness:	

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Includes price quotations, advertised competitive bids, limited bids and proposals.





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MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:						
(Bid Number and Description) in response to the invitation for the bid made by:						
(Name of Municipality / Municipal Entity) do hereby make the following statements that I certify to be true and complete in every respect:						
I certify, on behalf of that:						
(Name of Bidder)						
1. I have read, and I understand the contents of this Certificate;						
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;						
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;						
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;						
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:						
 (a) has been requested to submit a bid in response to this bid invitation; (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder 						
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium ³ will not be construed as collusive bidding.						
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:						
(a) prices;						
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.						

Employer: Contractor: Witness:



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR

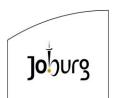
Johannesburg Water

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- (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.
- The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

Signature	Date
Position	Name of Bidder

Employer:	Contractor:	
Witness:	Witness:	
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T2.1.5 Proposed Amendments and Qualifications

The	Tender	er should	record any	deviations or	quali	ificatio	ns he	may	wish to	make	to the	tender	doc	ume	ents in	this
Retu	ırnable	Schedule	. Alternative	ly, a tenderei	may	state	such	quali	fications	s in a	coverin	g letter	to h	nis t	tender	and
refei	ence s	uch letter	in this sched	lule.												

The Tenderer's attention is drawn to clause C.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material qualifications.

Page	Clause or item	Proposal

Signed	Date	
Name	Position	
Tenderer		

Employer:	Contractor:	
Witness:	Witness:	





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T2.1.6 Schedule of the Tenderer's Experience

EMPLOYER: CON- TACT PERSON AND TELEPHONE NUM- BER	EMPLOYER'S AGENT OR REPRESENTATIVE: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COM- PLETED OR EXPECTED TO BE COM- PLETED
Signed		Date		
Name		Position		
Tenderer				

Employer:	Contractor:	
Witness:	Witness:	
		70



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 1

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Mathed of construction
Method of construction
Reservoir size
Material type
Name of authorized person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

NB: This document must be completed by the referee and included in the tender submission. Alternatively, the client's letterhead may be used for this purpose provided it complies with the functional criteria requirements. A separate form must be completed for each reference as required in the evaluation criteria. Information provided will be verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting and restriction from participating in any future government tender.

Employer:	Contractor:	
Witness:	Witness:	
		71





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 1

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Method of construction
Reservoir size
Material type
Name of authorized person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

NB: This document must be completed by the referee and included in the tender submission. Alternatively, the client's letterhead may be used for this purpose provided it complies with the functional criteria requirements. A separate form must be completed for each reference as required in the evaluation criteria. Information provided will be verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting and restriction from participating in any future government tender.

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 2

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Method of construction
Pagamyain aina
Reservoir size
waterial type
Name of authorized person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 2

I, the undersigned being duly authorised to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Method of construction
Reservoir size
Material type
Name of authorized person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 2

I, the undersigned being duly authorised to do so, h Water relative to tender Contract No. JW14302 for t ervoir.	
Name of Tenderer:	
Description of Services provided	
Method of construction	
Reservoir size Material type	
Name of authorized person:	
Signature :	Date
Telephone/Mobile:	
Email:	
Completed on behalf (Name of Client)	
	
NB: This document must be completed by the referee and it	included in the tender submission. Alternatively, the

Employer:	Contractor:	
Witness:	Witness:	





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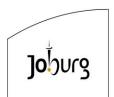
T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 2

I, the undersigned being duly authorised to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. JW14302 for the Construction of 20ML Carlswald Reservoir.
Name of Tenderer:
Description of Services provided
Method of construction
Reservoir size
Material type
Name of authorized person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)
NB: This document must be completed by the referee and included in the tender submission. Alternatively, the client's letterhead may be used for this purpose provided it complies with the functional criteria requirements. A

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. JW14302 for the Construction of 20ML Carlswald Reservoir.
Name of Tenderer:
Description of Services provided
Method of construction
Pipe Diameter Size
Material Type
Contract Value (Incl. VAT)
Name of Authorized Person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)
NP: This decument must be completed by the referee and included in the tender submission. Alternatively, the
I NR: This document must be completed by the retered and included in the tender submission. Alternatively, the

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

I, the undersigned being duly authorized to do so, he Water relative to tender Contract No. JW14302 for the ervoir .	
Name of Tenderer:	
Description of Services provided	
Method of construction	
Pipe Diameter Size	
Material Type	
Contract Value (Incl. VAT)	
Name of Authorized Person:	
Signature :	Date
Telephone/Mobile:	
Email:	
Completed on behalf (Name of Client)	

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract
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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

Water relative to tender Contract No. JW14302 for the Construction of 20ML Carlswald Reservoir.	
Name of Tenderer:	
Description of Services provided	
Method of construction	
Pipe Diameter Size	
Material Type	•••
Contract Value (Incl. VAT)	
Name of Authorized Person:	
Signature : Date	
Telephone/Mobile:	
Email:	
Completed on behalf (Name of Client)	
	_

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract
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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Method of construction
Pipe Diameter Size
Material Type
Contract Value (Incl. VAT)
Name of Authorized Person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

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Name of Tenderer:
Description of Services provided
Method of construction
Pipe diameter size
Material type
Contract Value (Incl. VAT
Name of authorized person:
Signature :Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

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Name of Tenderer:
Description of Services provided
Method of construction
Pipe Diameter Size
Material Type
Contract Value (Incl. VAT)
Name of Authorized Person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.7 CONTACTABLE REFERENCE

To Johannesburg Water (SOC) Ltd

CRITERIA 3

I, the undersigned being duly authorized to do so, hereby furnish a reference to Johannesburg Water relative to tender Contract No. **JW14302** for the **Construction of 20ML Carlswald Reservoir.**

Name of Tenderer:
Description of Services provided
Method of construction
Pipe Diameter Size
Material Type
Contract Value (Incl. VAT)
Name of Authorized Person:
Signature : Date
Telephone/Mobile:
Email:
Completed on behalf (Name of Client)

Employer:	Contractor:	
Witness:	Witness:	





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T 2.1.8 Key Personnel

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

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

	NUMBER OF PERSONS					
CATEGORY OF EM- PLOYEE	KEY PERSONNEL, PART OF THE TENDER- ER'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSON- NEL TO BE RE- CRUITED FROM LO- CAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Site Agent, Contracts Manager						
Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc.						
Artisans and other Skilled workers						
Plant Operators						
Unskilled Workers						
Others:						
SIGNATURE:				DATE: .		

Employer:	Contractor:	
Witness:	Witness:	

(of person authorized to sign on behalf of the Tenderer)



Witness:

Contract JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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T2.1.9 Curriculum Vitae of Key Personnel

Prov	ide separate forms for	each position listed in	n Key Personne	l Forms:
Pro ject	posed role in the pro-			
	_			
1.	Surname			
2.	First Name			
3.	Date and place of birth			
4.	Nationality			
5.	Membership of Professional Bodies and Professional Registration			
6.	Education			
	Institution (Date from	n – Date to)	Degree(s)	or Diploma(s) obtained
7.	Post Graduate / Diplom	na Experience		
Cor	npany / Organisation	(Date from – Date to)	Years of Employment	Position
8.	Key Experience Releva	nt to Project		
Fmn	loyer:	С	ontractor:	

Witness:





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Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
Duties	
Daties	
Drainat Nama and Laggitte	
Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	

Employer:	Contractor:	
Witness:	Witness:	





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Project Name	and Locality	
Project Dates	and Value	
Project Posit	ion (e.g. Pro-	
ject Manager	, Engineer,	
etc.)		
Description of	of Scope and	
duties		
,		la a ra hoo ala ra Ala ah I a ra a soo ara
•		, hereby declare that I am aware
	•	iculum Vita in the proposed project team and make myself
available for	this project.	
Signature		
C.g. 16.16.1 C		
Date		
Daie		

Employer:	Contractor:	
Witness:	Witness:	



Witness:

Contract JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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Provide separate forms for each position listed in Key Personnel Forms	Provide separate	forms for each	position listed	in Key	Personnel	Forms:
--	------------------	----------------	-----------------	--------	-----------	--------

Provide separate forms to	r each position lis	ted in Key Perso	onnei Forms:
Proposed role in the projec	t		
1. Surname			
2. First Name			
3. Date and place of birth			
4. Nationality			
5. Membership of Professional Bodies and Professional Registration			
6. Education			
Institution (Date fron	n - Date to)	Degree(s)	or Diploma(s) obtained
			-
7. Post Graduate / Diplom	a Experience		
Company / Organisation	(Date from – Date to)	Years of Employment	Position
8. Key Experience Releva	nt to Project		<u> </u>
Employer:		Contractor:	

Witness:





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Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Project	
Manager, Engineer, etc.)	
Description of Scope and	
Duties	
Drainet Name and Legality	
Project Name and Locality Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	

Employer:	Contractor:	
Witness:	Witness:	





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Project Name	and Locality	
Project Dates	and Value	
Project Posit ject Manager etc.)	• =	
Description of duties	of Scope and	
	on of my Curr	, hereby declare that I am aware iculum Vita in the proposed project team and make myself
Signature	:	
Date	:	



Employer:

Witness:

Contract JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T2 Returnable Documents

Provide separate forms for each position listed in Key Personnel Forms
--

1. Surname 2. First Name 3. Date and place of birth 4. Nationality 5. Membership of Professional Bodies and Professional Registration 6. Education Institution (Date from – Date to) Pegree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience Company / Organisation (Date from – Years of Em- Position
2. First Name 3. Date and place of birth 4. Nationality 5. Membership of Professional Bodies and Professional Registration 6. Education Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
2. First Name 3. Date and place of birth 4. Nationality 5. Membership of Professional Bodies and Professional Registration 6. Education Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
3. Date and place of birth 4. Nationality 5. Membership of Professional Bodies and Professional Registration 6. Education Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
4. Nationality 5. Membership of Professional Bodies and Professional Registration 6. Education Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
Membership of Professional Bodies and Professional Registration Institution (Date from – Date to) Degree(s) or Diploma(s) obtained Post Graduate / Diploma Experience
sional Bodies and Pro- fessional Registration 6. Education Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
Institution (Date from – Date to) Degree(s) or Diploma(s) obtained 7. Post Graduate / Diploma Experience
7. Post Graduate / Diploma Experience
7. Post Graduate / Diploma Experience
Company / Organisation (Date from – Years of Em- Position
A A HINNAH I I I I I I I I I I I I I I I I I I I
Date to) ployment
8. Key Experience Relevant to Project

Contractor:

Witness:





Volume 1 Tender and Contract Section T2 Returnable Documents

Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Project	
Manager, Engineer, etc.)	
Description of Scope and	
Duties	
Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Position (e.g. Pro-	
ject Manager, Engineer,	
etc.)	
Description of Scope and	
duties	
Project Name and Locality	
Project Dates and Value	
Project Position (e.g. Pro-	
Project Position (e.g. Project Manager, Engineer,	
Project Position (e.g. Project Manager, Engineer, etc.)	
Project Position (e.g. Project Manager, Engineer,	
Project Position (e.g. Project Manager, Engineer, etc.) Description of Scope and	
Project Position (e.g. Project Manager, Engineer, etc.) Description of Scope and	
Project Position (e.g. Project Manager, Engineer, etc.) Description of Scope and	
Project Position (e.g. Project Manager, Engineer, etc.) Description of Scope and	
Project Position (e.g. Project Manager, Engineer, etc.) Description of Scope and	

Employer:	Contractor:	
Witness:	Witness:	



Johannesburg Water

Volume 1 Tender and Contract Section T2 Returnable Documents

Project Name	and Locality	
Project Dates	and Value	
Project Posit	ion (e.g. Pro-	
ject Manager	, Engineer,	
etc.)		
Description of	of Scope and	
duties		
,		hands dealers that I am a second
		, hereby declare that I am aware of
	-	lum Vita in the proposed project team and make myself
available for	this project.	
Signature		
orginatar o		
Date		
Dale		





Volume 1 Tender and Contract
Section T2 Returnable Documents

T2.2.1 Contractor's Certificate of Registration With CIDB

NB: The Tenderer shall attach hereto the Contractor's Certificate of Registration with CIDB OR provide the CIDB registration number that JW can use to verify CIDB requirements for this tender. Failure to submit the certificate or CIDB registration number with the tender document will lead to the conclusion that the Tenderer is not registered with the CIDB and therefore not eligible to tender.

Tenderers who have made application to CIDB for registration and are capable of being so registered prior to the evaluation of submissions must attach a notification from CIDB that their application is being considered.

CIDB status to be active at the required CIDB grading at time of evaluation to avoid disqualification.

SIGNATURE:	DATE:
(of person authorized to sign on behalf of the Tenderer)	

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section T2 Returnable Documents

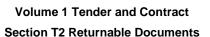
T2.2.2 SARS Tax Compliance Status Pin and Proof of CSD registration

The Tenderer must attach hereto a copy SARS Tax Compliance Status Pin and Proof of	f
CSD registration i.e. MA xxxxxxxxx number.	

SIGNATURE:	DATE:
(of person authorized to sign on behalf of the Tenderer)	

Employer:	Contractor:	
Witness:	Witness:	







T2.3.1 JW 6.4 Returnable Annexure A: Acknowledgement of SHE Specification & Annexures

DECLARATION BY CONTRACTOR

I, the undersigned, and representing the tenderer as indicated hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and confirm compliance thereto in the event of being successful:

- OHS Specification (Volume 3)
- Annexure 1: Baseline Risk Assessment
- Annexure 2: Medical Screening Policy
- Annexure 3: Sign off form
- Annexure 4: Environmental Management Plan

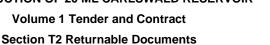
We furthermore commit to:

- Comply with all applicable SHE related legal and other requirements.
- Inform all staff of their role in managing environmental impacts and safety hazards on site.

Signed at	on this Day of	20
Name of Tenderer		
Name of Authorized person		
Authorized Signature*		

Employer:	Contractor:	
Witness:	Witness:	







T2.3.2 JW 6.5 Returnable Annexure B: Acknowledgement of Tender Drawings

DECLARATION BY CONTRACTOR

I, the undersigned, and representing the tenderer as indicated hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and confirm compliance thereto in the event of being successful:

The drawings that are issued for **TENDER PURPOSES** are those noted below:

DRAWING NUMBER	DESCRIPTION
13214-73-01-001	LAYOUT OF PROPOSED RESERVOIR
13214-73-01-002	STRUCTURE AND FENCE SETTING OUT
13214-73-02-001	LAYOUT & SETTING OUT OF PIPEWORK
13214-73-02-002	LEAK DETECTION & SCOUR PIPING LONGSECTIONS
13214-73-02-003	INLET & OUTLET PIPING LONGSECTIONS
13214-73-02-301	FENCE LAYOUT & DETAILS
13214-73-03-001	PROPOSED SEWER NETWORK LAYOUT
13214-73-04-001	GENERAL ARRANGEMENT & DETAILS
13214-73-04-002	LEAK DETECTION, CATLADDERS & ACCESS HATCH DETAILS
13214-73-04-003	PIPING DETAILS
13214-73-04-004	FLOWMETER CHAMBERS - 3D VIEWS
13214-73-04-005	FLOWMETER CHAMBERS - LAYOUT, SECTIONS & DETAILS
13214-73-04-006	VALVE CHAMBER - 3D VIEWS
13214-73-04-007	VALVE CHAMBER - LAYOUT, SECTIONS & DETAILS
13214-73-04-010	SCOUR BOX- 3D VIEWS
13214-73-04-011	SCOUR BOX - LAYOUT & SECTIONS
13214-73-04-012	INTERCONNECTING PIPING LAYOUT
13214-73-04-013	PIPE AND VALVE SCHEDULE
13214-73-05-001	TELEMETRY BUILDING LAYOUTS, ELEVATIONS, SECTIONS AND
	DETAILS
13214-73-05-002	GUARD HOUSE 3D VIEWS

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section T2 Returnable Documents

DRAWING NUMBER	DESCRIPTION
13214-73-05-003	GUARD HOUSE LAYOUTS, ELEVATIONS, SECTIONS AND DE-
	TAILS
13214-73-05-004	VALVE BUILDING - 3D VIEWS
13214-73-05-005	VALVE BUILDING - LAYOUT & ELEVATIONS
13214-73-05-006	VALVE BUILDING - SECTIONS & DETAILS
13214-73-06-001	ELECTRICAL CABLE ROUTES
13214-73-06-002	EARTHING LAYOUT
13214-73-06-003	SINGLE LINE DIAGRAM
13214-73-06-004	TYPICAL LOOP DIAGRAM LEVEL SENSOR
13214-73-06-005	TYPICAL LOOP DIAGRAM MAGNETIC FLOW METER
13214-73-06-006	TYPICAL LOOP DIAGRAM OPEN CLOSE ACTUATOR
13214-73-06-007	TYPICAL LOOP DIAGRAM MODULATING ACTUATOR
13214-73-06-008	GUARD HUT POWER AND LIGHTING LAYOUT
13214-73-06-009	TELEMETRY HUT
13214-73-06-010	TYPICAL FIELD JB'S
13214-73-06-011	TYPICAL FIELD PLC
13214-73-06-012	EARTHING AND LIGHTING SYMBOLS
13214-73-06-013	EXTERIOR LIGHTING LAYOUT
13214-73-06-014	VALVW BUILDING POWER & LIGHTING LAYOUT

Signed at	on this	Day of	20
Name of tenderer			
Name of Authorized names			
Name of Authorized person			
Authorized Signature*			

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract
Section C1 Agreement and Contract Data

Johannesburg Water (SOC) Ltd



CONTRACT JW14302

CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

VOLUME 1

PART 1: AGREEMENT AND CONTRACT DATA

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

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Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

C1.1 FORM OF OFFER (ACCEPTANCE & AGREEMENT)

C1.1.1 Form of Offer

The Contractor is to complete and sign the Form of Offer.

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

JW 14302: Construction of 20ML Carlswald Reservoir.

The Contractor, 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 Contractor, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Contractor 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 f	igures),
Acceptance and returning	one copy of this do r Data, whereupon t	cument he Cont	to the	Con	tractor befo	t of this Form of Offer and re the end of the period o ty named as the Contracto
Signature(s)						
Name(s)						
Capacity						
For the Contractor Name and signature	(Name and organisation)	addre	ss	of		
of witness	(Name)				(Signature	e)
Date						
Employer:		С	ontracto	r:		
Witness:		W	/itness:			



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

C1.1.2 Form of Acceptance

The Employer is to complete and sign the form of acceptance

By signing this part of the Form of Offer and Acceptance, the Employer identified below accepts the Contractor'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 Contractor's Offer shall form an agreement between the Employer and the Contractor 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 Volume 1:

- Part 1 Agreement and Contract Data, (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Contractor 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 Contractor shall within twenty-eight (28) days after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the employer's agent (whose details are given in the Contact Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date of this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

Name(s) Capacity			
For the Employer	Johannesburg Water Newtown.	SOC (Ltd), Turbii	ne Hall, 65 Ntemi Piliso Street,
	(Name and add organisation)	ress of	
Name and signature of witness			
	(Name)	(S	gnature)
Date			
mployer:		Contractor:	
/itness:		Witness:	



Volume 1 Tender and Contract



Section C1 Agreement and Contract Data

C1.1.3 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 Contractor'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;
- Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here; and
- 4. Any change or addition to the tender documents arising from the above arrangements and recorded here shall also be incorporated into the final draft of the Contract.

	ecoraea ne	sie shall also be incorporated into the final draft of the Contract.
1	Subject	
	Details	
2	Subject	
	Details	
3	Subject	
	Details	
4	Subject	
	Details	
5	Subject	
	Details	
6	Subject	
	Details	
7	Subject	
	Details	
8	Subject	
	Details	

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Contractor agree to and accept the foregoing Schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender

Employer:	Contractor:	
Witness:	Witness:	102





Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Contractor and the Employer during the process of offer and acceptance.

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

F	or the Contractor: Signature(s)							
	Name(s)							
	Capacity							
	For the Contractor	()						
		(Name organisat	and ion)	add	ress	of		
	Name and signature of witness	organica.						
	Date	(Name)					(Signature	e)
Fo	r the Employer:							
	Name(s)							
	Capacity							
	For the Employer	Johanne	shura V	Vater :	SOC (I	td) Tu	ırhine Hall	65 Ntemi Piliso Street,
		Newtown		· uioi	-)	-tu, . c	,	oo moonii iiioo on oot,
		-	1.					
		(Name	and	add	ress	of		
		organisat	ion)					
	Name and signature							
	of witness							
		(Name)					(Signature	e)
	Date							
	Employer:				Contrac	tor:		
	Witness:				Witness	:		

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CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

C1.2 CONTRACT DATA

C1.2.1 Part 1: Data Provided by the Employer

CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works Third Edition (2015), published by the South African Institution of Civil Engineering, is applicable to this Contract.

Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Telephone number: 011-805 5947)

C1.2.1.1 Contract Specific Data

The following contract specific data are applicable to this Contract:

GCC Clause	Information		Information						
1.1.1.13	The Defects Liability Period is 52 weeks from the date of the Certificate of Completion.								
1.1.1.14	The time for achieving Practical Completion is 18 months.								
1. 1.1.15	The name of the Employ Limited.	er is Mr Willian	n Chitsa of Johannesburg Water (SOC)						
1.1.1.16			lele Consulting represented by Jan Swart ngineering Council of South Africa.						
1.1.1.26	The Pricing Strategy is a F		t Contract.						
1.2.1.2	The address of the Emplo	yer is:							
	Physical	Postal	Tel: 011 688 1603						
	Turbine Hall	P.O. Box	Fax: 011 688 1521						
		61542							
	65 Ntemi Piliso Street	Marshalltown	Email:william.chitsa@jwater.co.za						
	Newtown 2107								
1.2.1.2	The address of the Emplo	yer's Agent is:							
	Building 1, Maxwell Office	Postal	Tel: 011 207 2060						
	Park, Magwa Crescent,	P.O. Box 6002	Email: jans@zitholele.co.za						
	Waterfall City	Halfway							
	Midrand 1685	House							
		1685							
3.2.3	Specific Approval – The Employer's Agent is required to obtain the Employer's approval for the following: • Approval of Variation Orders • Approval to exceed the Contract Sum • Approval of Subcontracting Plan								
	Add the following after this	s clause:							
4.4.2	sections of the Works, sub	contractors shall re identified from	e Contractor for the execution of certain also include SMME's (Small Medium and the Local Community for the execution of the Contractor.						

Employer:	Contractor:	
Witness:	Witness:	105



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

GCC Clause	Information
	The appointment of subcontractors and the allocation of work to subcontractors shall, in addition to the provisions of the General Conditions of Contract, comply with, but not be limited to, the provisions of C1.2.1.2.14 (see below). A minimum value of 30% (thirty percent) of the Contract Price shall be subcontracted to SMME's.
	Add the following to this clause:
4.11.1	Competent Employees shall include, amongst others, the following Key Personnel:
	The minimum requirements in terms of qualifications and experience of these Key
5.3.1	Personnel are listed in C1.2.1.2.15 (see below). The documentation required before commencement with Works execution are: • Approved Health and Safety File (Clause 4.3) • Approval of the Environmental File (Clause 4.3) • Initial programme & cashflow projections (Clause 5.6) • Guarantee from Bank or Insurance Company (Clause 6.2) • Insurance of the Works, Plant, etc. (Clause 8.6), including but not limited to: • SASRIA Policy • Liability Insurance • Insurance of Construction Machinery and Plant • Insurance of Motor Vehicle Liability, etc. • Compliance Certificate in respect of COID • Signed Notification to the Department of Labour • Construction Permit (where applicable) • Organogram of resources
5.3.2	The time to submit the documentation required before Commencement of the Works is 28 days.
5.3.3	Time to instruct commencement of the Works
	Delete Clause 5.3.3 and replace with the following: The Contractor shall commence with carrying out the Works upon written instruction from the Employer's Agent to commence with the Works.
5.8.1	Working days shall be Monday to Friday, between 07h00 to 17h00.
5.8.1	The non-working days are Sundays. The special non-working days are all Public Holidays in terms of the Public Holidays Act (as amended), and the annual "Builder's Break " as defined by SAFCEC on an annual basis.
5.13.1	The penalty for failing to complete the Works is the greater of: An amount equal to the daily Time Related P&G rate (as calculated from the Time Related P&G section in the Bill of Quantities) or R25,000.00 per day, whichever is greater.

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

GCC Clause	Information			
5.14.1	The requirements for achieving Practical Completion are:			
	Construction, testing & commissioning of the new 20ML Carlswald Reservoir.			
	 Construction, testing & commissioning of all pipework including inlet, outlet, overflow, scour and drainage pipelines. 			
	 Installation, testing & commissioning of all valves. Installation, testing & commissioning of all electrical and C&I infrastructure. 			
	 Construction, testing & commissioning of all stormwater infrastructure. Construction of the guard house (including all civil and electrical infrastructure). 			
	 Construction of the telemetry hut (including all civil, electrical and telemetry infrastructure). 			
	 Construction of the valve building (including all pipework, valves, civil and electrical infrastructure). 			
	 Construction, Installation, testing & commissioning of all security infrastructure (including fencing, gates, CCTV systems etc). Construction of access road. 			
5.16.3	The latent defects period is 10 years.			
6.2.1	The time to deliver the Form of Guarantee is within 28 days from the			
	Commencement Date. The security to be provided by the Contractor shall be in the form of a Performance Guarantee and will comply with the requirements of Clause 6.2.3. The value of the Performance Guarantee shall be ten (10) % of the Contract Sum, which sum excludes VAT.			
6.8.2	The Contract Price Adjustment is applicable for this contract.			
	The contract rates shall be fixed for the first 12 months and thereafter the rates will be adjusted by the change in CPA (as published by Statistics SA and will be fixed for the next 12 months)			
	The following formula will be applicable. $ (1-x) \left[\frac{aLt}{Lo} + \frac{bPt}{Po} + \frac{cMt}{Mo} + \frac{dFt}{Fo} - 1 \right] $			
	In which the symbols have the following meaning as per GCC 2015: "x" is the proportion of "Ac" which is not subject to adjustment. "a", "b", "c" and "d" are the coefficients contained in the Contract Data, which deemed, irrespective of the actual constituents of the work, to represent the proportionate value of labour, contractors' equipment, material (other than "sp materials" specified in the Contract Data) and fuel respectively.			
	"L" is the "Labour Index" "P" is the "Plant Index" "M" is the "Materials Index"			
	"F" is the "Fuel Index" The suffix "o" denotes the base indices applicable to the base month as stated in the			
Flaviani	Contractory			

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

GCC Clause	Information		
	Contract Data.		
	The suffix "t" denotes the current indices applicable to the month in which the last day		
	of the period falls to which the relevant monthly statement relates.		
	If any index relevant to any particular certificate is not known at the time when the certificate is prepared, the Engineer shall estimate the value of such index. Any correction which may be necessary when the correct indices become known, shall be made by the Engineer in subsequent payment certificates.		
	made by the Engineer in subsequent payment certificates.		
	The value of the payment certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule, with the following values:		
	The value of "x" is 0,10		
	The values of the coefficients are: a = 0,32 Labour b = 0,25 Contractor's equipment c = 0,33 Material d = 0,10 Fuel		
	The province where the Site is located is Gauteng and the urban area where the project is implemented is Johannesburg.		
	The base month is the month prior to the month in which the tender closes.		
	The Consumer Price Indices for Labour (L), Plant (P), Material (M) and Fuel (F) are as published by Statistics South Africa for the applicable time.		
6.8.3	Price adjustments for variations in the costs of special materials are NOT allowed.		
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%.		
6.10.3	The percentage retention on the amounts due to the Contractor is 10%.		
6.10.3	The limit of retention money is 5% of the contract price.		
6.10.4	Delivery, dissatisfaction with and payment of payment certificates Delete Clause 6.10.4 and replace with the following:		
	Payment shall be made upon:		
	 The Contractor providing a payment certificate with all required supporting documents to the Employer's Agent on dates to be communicated to the Contractor upon award. The payment certificate being submitted with an original tax invoice. A statement being submitted on the last day of the month. 		
	Payment will be made within 30 days of receipt of the Contractor's statement.		
	Payment shall be subject to the Contractor submitting an Original Tax Invoice compliant with SARS requirements for a Valid Tax Invoice to the Employer for the		

Employer:	Contractor:	
Witness:	Witness:	400







Volume 1 Tender and Contract

Section C1 Agreement and Contract Data

GCC Clause	Information
	amount due. Any dissatisfaction in respect of such payment certificate shall be dealt
	with in terms of Clause 10.2.
6.10.5	Payment of Retention Money
	Add to Clause 6.10.5 the following:
	Payment will be subject to Johannesburg Water processes as outlined in clause
0.40.00	6.10.4 as amended.
6.10.6.2	Delete Clause 6.10.6.2
6.11	Delete Clause 6.11.
	Cost of making good of defects
7.8.2	Amend Clause 7.8.2.1 as follows:
	In the first line, correct the spelling of 'therefore'.
8.4.1.1	Add to the end of Clause 8.4.1.1 the following text:
0.4.1.1	"hereby indemnifies the Employer against any liability in respect of damage or
	physical loss of property of any person or injury or death of any person due to non-
	compliance with the Occupational Health and Safety Act (Act 85 of 1993).
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included
	in the insurance sum is an amount equal to 10% of the Contract Price.
8.6.1.2	Delete clause 8.6.1.2 and replace with the following:
	Following the introduction of legislation affecting the articles of the South African
	Special Risks Insurance Association (SASRIA), insurance cover for loss or
	damage to the Works caused by any event defined as a risk in terms of the insurance
	offered by SASRIA, will be provided under a certificate issued by SASRIA.
8.6.1.3	The limit of indemnity for liability insurance is R20,000,000 (Twenty million Rand) for
	any single claim – the number of claims to be unlimited during the Construction and
0.04.5	Defects Liability Periods
8.6.1.5	In addition to the insurances required in terms of General Conditions of Contract
	Clauses 8.6.1.1 to 8.6.1.4 the following insurance is also required:
	a. The Contractor shall insure all Construction Machinery and Plant (including
	tools, offices and other temporary structures and content) and other items,
	other than those intended for incorporation into the works, owned, leased or
	hired and brought on to the Site against all risks of physical loss or damage
	for the period that such Plant shall be on the Site to the full value thereof. In
	respect of Machinery and Plant brought on to the Site by or on behalf of Sub-
	Contractors, the Contractor shall be deemed to have complied with the
	provisions of this Sub-Clause if it has ensured that such Sub-Contractors
	have similarly insured such Plant and Machinery. Such insurance shall be
	effected with an Insurer and in terms approved by the Employer (which
	approval shall not be unreasonably withheld) and the Contractor shall, when
	required, submit to the Employer's Insurance Brokers, via the Employer's
	Agent, the policy or policies of insurance and receipts for payment of the
	current premiums.

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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GCC Clause	Information
	b. The Contractor and the Sub-contractors shall effect and maintain at their cost, insurance under the provision of the Compensation for Occupational Injuries and Diseases Act (COID), 1993 (Act No. 130 of 1993)
	c. The Contractor and the Sub-Contractors shall effect and maintain at their own cost, motor vehicle liability insurance with at least indemnification for "balance of third party" risks, including passenger liability with a limit of indemnity of not less than R2,5 million.
	 d. Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor's Policies of Insurance. e. Any other Insurance cover that may be deemed necessary by the Contractor to ensure full and successful completion of the Works.
	Add the following clause to 8.6
8.6	In addition to any statutory obligations, or other requirements contained in the Conditions of Contract or in the Insurance Policy and Documents the Contractor shall report in writing to the Employer's Agent every accident within 48 hours of its occurrence, whether such accident is in respect of damage to persons or property. The report shall contain full details of the accident. The Employer's Agent shall have the right to make all and any enquiries either on the Site or elsewhere as to the cause and results of any such accident and the Contractor shall give the Employer's Agent full access and facilities for carrying out such enquiries.
	The Employer's Agent shall be given full and immediate access to all communication, reports, findings, assessments, etc. between the Contractor and its Insurance Broker (or Insurance Provider), particularly as it relates to the processing and outcomes of any and all claims. The Contractor shall further allow and authorise the Employer's Agent to communicate with its Insurance Broker (or Insurance Provider) to obtain any and all such information as the Employer's Agent deems necessary.
10.4.2	Dispute resolution shall be by Amicable Settlement, failing which, any dispute shall be resolved by way of ad-hoc Adjudication.
10.5.3	The number of Adjudication Board Members to be appointed is one (1).
10.7.1	The determination of disputes shall be by arbitration.

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C1.2.1.2 **Additions**

The additional Conditions of Contract are:

C1.2.1.2.1 Penalties

In addition to GCC clause 5.13, during the Contract Period should the Contractor:

a) Fail to report

- The Employer shall levy a penalty on Contractor, should the latter fail to provide reporting as required in the specification highlighted in the Scope of Work in PS 3.2, PS 6.11 and PS 6.13, with regard to content and frequency, whilst as per the Pricing Data section no payment for work completed shall be processed.
- The penalty value shall be R5,000.00 per report per day; and
- If the Contractor fails to complete the aforementioned more than three incidents and should the Employer or his duly authorised representative find that the Contractor is hindering his (the Employer's) deliverables to JW Senior Management, he shall reserve the right to:
- perform the Works internally or through another Contractor; and i.
- ii. deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor.
- terminate the Contract. iii.

No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrences or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons.

b) Fail to pay any labourer or SMME

- The Employer shall levy a penalty on the Contractor, should the latter fail to provide payment to the any labourer or SMME as required in the specification highlighted in the Scope of Work and specified in the appointment agreements with the Contractor and the labourer or SMME.
- The penalty value shall be R 50,000.00 per incident per occasion; and
- If the Contractor fails to complete the aforementioned more than three incidents and should the Employer or his duly authorised representative find that the Contractor is hindering his (the Employer's) deliverables to JW Senior Management, he shall reserve the right to:
- perform the Works internally or through another Contractor; and

Employer:	Contractor:	
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ii. deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor.

iii. terminate the Contract.

No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrences or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons.

c) Failure to achieve targets in terms of Contract Participation Goals
If the Contractor fails to achieve the monetary value of the target set by the Employer
for contract participation by local SMME Contractors in terms of Procurement and
Particular Specifications in Scope of Works clause PS3.2.3, the Contractor shall be
liable to the Employer for a sum calculated in accordance with the Contract Data and
the aforementioned Scope of Works as a penalty for such underachievement."

The penalty for failing to achieve the monetary value of the target set by the Employer for contract participation by Targeted Enterprises and local SMME Contractors in terms of Small Contractor Development of Particular Specifications in PS3: Scope of Works, is 50% of the monetary value by which the achieved monetary value falls short of the target monetary value.

d) Penalties irreversible

The Contractor shall note that all penalties once imposed shall be non-recoverable or non-reversible, even if the default is remedied.

C1.2.1.2.2 Source of instructions

The Contractor shall neither seek nor accept instructions from any authority external to the Employer's Agent in connection with the performance of his services under this Contract. The Contractor shall refrain from any action which may adversely affect the Employer and shall fulfill his commitments with fullest regard for the interest of the Employer. The Contractor may only accept and comply with instructions from the Employer's Health and Safety Representative or the Employer's Environmental Representative with regards to matters regarding Health & Safety or Environmental Management respectively, but with further approval from the Employer's Agent.

Employer:	Contractor:	
Witness:	Witness:	



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C1.2.1.2.3 Officials not to benefit

The Contractor warrants that no official of the Employer has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of the Contract.

C1.2.1.2.4 Prevention of corruption

The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor has offered or given any person any gift or consideration of any kind as an inducement or reward for doing or intending to do any action in relation to the obtaining or the execution of the Contract or any other contract with the Employer or for showing or intending to show favor or disfavor to any person in relation to the Contract or any other contract with the Employer. If similar acts have been done by any persons employed by the Contractor or acting on his behalf whether with or without the knowledge of the Contractor in relation to this or any other Contract with the Employer the same consequences shall apply.

C1.2.1.2.5 Confidential nature of documents

All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under the Contract shall be the property of the Employer, shall be treated as confidential and shall be delivered only to the Employer's Agent or his duly authorized representative on completion of the Works; their contents shall not be made known by the Contractor to any person other than the personnel of the Contractor performing services under this Contract without the prior written consent of the Employer.

C1.2.1.2.6 Returns of labour, SMME, plant, equipment and material

The Contractor shall provide a return in detail in the form and at such intervals as the Employer's Agent or his duly authorized representative may prescribe showing the supervisory staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such information respecting construction plant, equipment and material as the Employer's Agent or his duly authorized representative may require. Reporting as per JW6.1. The supporting documents required for SMMEs include but are not limited to the following:

- Valid CIPC registration (i.e. CK, COR)
- SA ID copies of owners
- Active CIDB membership: minimum grading 1CE
- Valid CSD compliance status
- Valid EME affidavit
- COIDA certificate
- Company Profile including similar experience and skilled personnel CVs
- Health and Safety Plan
- Proof of Payments

The supporting documents required for local labourers include but are not limited to the following

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Witness:	Witness:	



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- Certified Copies of IDs
- Individual contracts
- Monthly Individual proof of payment
- Monthly Individual timesheets
- Training returns
- UIF forms (proof of registration from Labour)

C1.2.1.2.7 Materials and workmanship

All materials and workmanship shall be of the respective kinds described in the Contract and in accordance with the Employer's Agent's instructions and shall be subjected from time to time to such tests as the Employer's Agent may direct at the place of manufacture or fabrication, or on the Site or at all or any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any materials used and shall supply samples of materials before incorporation in the Works for testing as may be selected and required by the Employer's Agent. All testing equipment and instruments provided by the Contractor shall be used only by the Employer's Agent or by the Contractor in accordance with the instructions of the Employer's Agent.

a) No material not conforming with the Specifications in the Contract shall be used for the Works without prior written approval of the Employer and instruction of the Employer's Agent, provided always that if the use of such material results or may result in increasing the Contract Price, the procedure in GCC clause 6.3 (Variations) shall apply.

C1.2.1.2.8 Examination of the work before covering up

No work shall be covered up or put out of view without the approval of the Employer's Agent or his duly authorized representative and the Contractor shall afford full opportunity for the Employer's Agent or his duly authorized representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The Contractor shall give due notice to the Employer's Agent whenever any such work or foundations is or are ready or about to be ready for examination. The Employer's Agent or his duly authorized representative shall without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations.

C1.2.1.2.9 Employer's Agent's power to order removal of improper work and materials

The Employer's Agent or his duly authorized representative shall during the progress of the Works have power to order in writing from time to time, and the Contractor shall execute at his cost and expense, the following operations:

- a) removal from the Site within such time or times as may be specified in the order of any materials which in the opinion of the Employer's Agent are not in accordance with the Contract.
- b) substitution of proper and suitable materials; and

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Witness:	Witness:	



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c) removal and proper re-execution (notwithstanding any previous test thereof or interim payment therefore) of any work which in respect of materials or workmanship is not in the opinion of the Employer's Agent or his duly authorized representative in accordance with the Contract.

C1.2.1.2.10 Default of Contractor in carrying out Employer's Agent's or his duly authorized representative's Instructions

In case of default on the part of the Contractor in carrying out an instruction of the Employer's Agent or his duly authorized representative, the Employer shall be entitled to employ and pay other persons to carry out the same, and all expenses consequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer and may be deducted by the Employer from any monies due or which may become due to the Contractor.

C1.2.1.2.11 Date falling on public holiday or weekend

Where under the terms of the Contract any act is to be done or any period is to expire upon a certain day and that day or that period fall on a day of rest or recognized public holiday or weekend, the Contract shall have effect as if the act were to be done or the period to expire upon the working day following such day.

C1.2.1.2.12 Ambiguities and inconsistencies

The Employer or the Contractor shall notify the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents, which are part of this Contract. Governed by the spirit and intention of the Contract, the Employer shall give a binding instruction resolving the ambiguity or inconsistency.

C1.2.1.2.13 False claims by the Contractor

- a. Failure, by the Contractor, to demonstrate or present any feature declared during the procurement stage shall constitute grounds for Contract termination or the market related equivalent price discount, if no market related value is available, the Employer shall give a final ruling on the amount. This shall be at the discretion of the Employer based on the implication of such omission. Should the Contractor refuse to accept the Employer's price, the Contract shall be terminated.
- b. Any false claims by the Contractor or his staff (with or without his knowledge), based on Works to be performed or completed per site stage shall constitute grounds for Contract termination and result in blacklisting on the Employer's database.

The Contractor shall note that any of the above shall constitute non-performance on the part of the Contractor, further resulting in him forfeiting his full Contract Guarantee.

C1.2.1.2.14 Special Conditions

The successful Tenderer must subcontract a minimum of 30% of the value of this Contract to an entity(s) described below. The value of the Contract for the purposes of this calculation shall be equal to the Contract Price (excluding VAT) as described in the General Conditions of Contract.

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The subcontractor/s chosen for this purpose must be registered on National Treasury's Central Supplier Database (CSD) and must be from one of the following designated groups:

- An EME or QSE which is at least 51% owned by black people;
- An EME or QSE which is at least 51% owned by black people who are youth;
- An EME or QSE which is at least 51% owned by black women;
- An EME or QSE which is at least 51% owned by black people with disabilities;
- An EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- A cooperative which is at least 51% owned by black people;
- An EME or QSE which is at least 51% owned by black people who are military veterans;
- an EME or QSE.
- Subcontractors must be chosen from National Treasury's Central Supplier Database which can be accessed on National Treasury's website.
- 2. The Contractor shall identify work packages that will be allocated to Subcontractors, so that the minimum requirement of 30% can be met during the implementation of the project, as follows:
 - The Contractor shall develop a Subcontracting Plan that sets out the details of the proposed Subcontracting arrangements including, but not limited to, competitive bidding process to be used for the appointment of SMME's, scope of work to be allocated, criteria for the selection of Subcontractor(s), Subcontractor agreements, cost of the work to be Subcontracted, etc.
 - The Subcontracting Plan shall be developed in consultation with the Ward Councillor and / or Community Liaison Officer, who shall assist the Contractor in identifying SMME's and other skills that may be available in local and surrounding communities.
 - The Subcontracting Plan shall be issued to the Employer's Agent for approval, prior to the engagement of any Subcontractor(s) by the Contractor. The activities, time periods, linkages, etc. associated with the development and approval of the Subcontracting Plan shall be included in the Project Programme, which Programme is subject to the approval of the Employer's Agent. A period of four weeks will be required for the Employer's Agent to consult with the Employer, prior to approval of the Subcontracting Plan.
 - The Contractor shall ensure that rates that are tendered (during Tender Stage) for work items that are likely to be Subcontracted, are market related rates. Provision is made in the Bill of Quantities (BoQ) for the Contractor to add a mark-up for the sourcing, handling, and management of Subcontractors, SMME's, and the like, for the duration of the Contract.
 - On or during appointment of Subcontractors, should Subcontractors prove that rates, that have been tendered by the Contractor for BoQ work items that are being subcontracted, are not market related, the Contractor will be liable to cover the cost of the difference, i.e. the difference in rate tendered by the Contractor versus the rate that is being requested by the Subcontractor. This difference in cost will be for the Contractor's account, and no Variation Orders for additional costs will be entertained by the Employer. The Contractor bears the full and complete risk for the rates that have been tendered by the Contractor during Tender Stage.
 - In the event that a rate supplied by the Contractor for a specific BoQ work item is not

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sufficient to cover Subcontractor costs/rates for that specific item, the Contractor shall provide a detailed rate breakdown for that specific BoQ item (and each and every subsequent BoQ work item where the rate is not sufficient to cover Subcontractor cost); and shall indicate costs (amongst others) for labour, material, handling, mark-ups, etc. to prove that the rate that was submitted during tender stage was in fact market related; and in balance with other rates that were submitted for work items that will not be undertaken by Subcontractors.

- Should any delays be experienced during the period of the Contract due to the
 appointment of subcontractors by the Contractor, work stoppages by subcontractors,
 industrial action by subcontractors, etc. such delays shall be assigned to the
 Contractor, and no claims for Extension of Time will be entertained by the Employer.
- The Contractor will be liable to pay a penalty if the Subcontracting target of 30% has not been met by the end of the Contract. The Employer will deduct this penalty amount through the Payment Certificate process. The Employer will have full discretion as to when the penalty will be applied (i.e. the month in which the penalty amount will be deducted). In calculating the total amount that has been (will be) paid to SMME's, all amounts that have actually been reimbursed to SMME's will be taken into account including P&G's, amounts for actual work done, etc.
- The penalty amount described above shall be equal to 50% (fifty percent) of the difference between the target Subcontract amount (i.e. 30% of the Contract Price) and the actual amount that has been spent on Subcontractors/SMME's by the end of the Contract.
- 3. A Subcontracting agreement between the Main Contractor and the Subcontractor shall be submitted to JW upon appointment and must include the following minimum information:
 - Name of Subcontractor and BBBEE status
 - Subcontractor domicilium and registered address of business, as well as status of compliance with all applicable legal requirements.
 - Area and location of project
 - Scope of Work issued to the Subcontractor
 - Value of the Work issued including P&G's (this information must be submitted in a format that is readily auditable).
 - Assistance provided/to be provided to the Subcontractor by the Contractor, e.g. acquisition of materials, machinery, tools, etc.
 - A Skills Transfer Plan which will indicate, amongst others, the proposed skills that will be transferred to the Subcontractor, individuals that will be identified for skills transfer, the amount that will be spent by the Contractor on skills transfer, evidence that will be produced by the Contractor (such as training certificates, training registers, etc.), etc.
 - A specific provision that enables the Contractor to pay the Subcontractor's suppliers, labour (skilled, local, etc.) or any other service provider of the Subcontractor, should the Subcontractor fail to do so. This provision shall include (but not be limited to) the following conditions/proviso's:
 - Invoices that are due for payment from suppliers and the like must be invoices that have been approved for payment, and be based on work or services that have actually been completed or delivered. Payments that are due to labour will

Employer:	Contractor:	
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be based on approved timesheets.

- The Contractor is to ensure that any invoice presented for payment is indeed an approved invoice, and that the necessary work or services have been delivered or completed. The approved invoice shall be settled (paid) by the Contractor (on behalf of the Subcontractor) by the due date for payment.
- The Contractor will be entitled to deduct payments made to any third party, on behalf of the Subcontractor, from subsequent payments that may become due to the Subcontractor.
- The Contractor will be entitled to bill the Subcontractor a mark-up on the payments made on behalf of the sub-contractor. The mark-up shall not be more than 10% (ten percent) of the amount actually paid (i.e. the amount (excluding VAT) reflected on the invoice that has been settled). The mark-up amount shall be deducted from subsequent payments that may become due to the Subcontractor.
- Proof of any such payments made on behalf of the Subcontractor shall be issued to the Employer's Agent, on request, with all necessary supporting information that the Employer's Agent may request
- Payments made on behalf of the Subcontractor are not subject to the Contractor first being paid by the Employer. Therefore, the Contractor shall pay approved invoices, on behalf of the Subcontractor, irrespective of whether the Contractor has first been paid by the Employer.
- 4. The successful Contractor shall submit periodic SMME/Subcontractor reports to the Employer's Agent as follows:
 - Status of progress against the Subcontracting Plan (described above), to the approval
 of the Employer's Agent
 - Subcontractor domicilium and registered address of business, as well as ongoing status of compliance with all applicable legal requirements.
 - Name of Subcontractor and BBBEE status
 - Area and location of project
 - Scope of work issued to the Subcontractor
 - Value of the work issued (this information must be submitted in a format that is readily auditable)
 - Monthly payments made to the subcontractor (this information must be submitted in a format that is readily auditable)
 - Assistance provided to the Subcontractor e.g. advance payments, acquisition of materials, machinery, tools, etc.
 - Performance of the Subcontractor, with evidence to support this performance assessment.
- 5. Upon completion of the project, the Contractor is required to provide a final report to JW on skills transferred to / acquired by the Subcontractor(s) engaged on the Project, description and value of work performed, as well as their overall performance.
- 6. The Contractor shall also indicate whether the experience gained by the Subcontractor is sufficient to assist the Subcontractor to improve their CIDB grading, with full details of

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supporting information.

C1.2.1.2.15 Competent Employees

Competent Employees	Qualifications	Experience
Contracts Manager	 Minimum Qualifications of Contracts Manager: Bachelor's degree (Civil Engineering) OR Quantity Surveying / Construction Management equivalent or higher.	Minimum of Five (5) completed projects involving construction of reinforced concrete reservoir and / or bulk steel pipe work completed as Contracts Manager
Site Manager / Site Agent	Minimum Qualifications of Site Manager: National Diploma (Civil/ Structural) Engineering or more; AND Registered as a Candidate Professional in the Built Environment or more will be considered.	Minimum of three (3) completed projects involving construction of reinforced concrete reservoirs of 10ML or more completed as Site Agent/Site Manager
Safety Officer	Minimum Qualifications of Safety Officer National Diploma (Safety Management)/National Diploma (Environmental Health/Environmental Science/ Environmental Management) /SAMTRAC / SHEOMTRAC/ SHEMTRAC / MESHTRAC /NEBOSH / Safety Officers Course (NQF 5) or more, AND • Professional Registration with SACPCMP in the Construction Health and Safety Sector.	Minimum of three (3) completed civil/structural engineering projects completed as safety officer

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C1.2.2 Part 2: Data Provided by the Contractor

GCC Clause	Inform	nation
Clause 1.1.9	The name of the Contractor is	
1.1.9	The Contact person is:	
	The address of the Contractor is:	
	Physical Address:	Postal Address:
Clause 1.2.1.2		
	Tel:	Fax:
	Email:	
Clause 1.1.1.1	The time for achieving Practical Completion	is 18 months from the Commencement Date
	The security to be provided by the Contractor	or shall be one of the following:
Clause 6.2.1	Fixed Performance Guarantee of 10% of t VAT)	he Contract Sum (which sum shall exclude
	The variation in cost of special materials is	
Clause	Type Unit	Rate
6.8.3		
	NOT APPLICABLE	

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Johannesburg Water (SOC) Ltd



CONTRACT NO. JW14302

CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

VOLUME 1

PART 1.3: FORMS AND SECURITIES

Employer:	Contractor:	
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C1.3 FORMS AND SECURITIES FORMS FOR COMPLETION BY THE CONTRACTOR

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

- Form of Guarantee a)
- b) Blasting Indemnity
- Agreement in terms of the Occupational Health and Safety Act c)
- Occupational Health And Safety Indemnity Undertaking d)

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

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

Employer:	Contractor:	
Witness:	Witness:	





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C1.3.1 Form of Guarantee

TO BE PRINTED ON THE OFFICIAL LETTERHEAD OF THE GUARANTOR. PERFORMANCE GUARANTEE

WHEREAS Johannesburg Water (SOC) Ltd (hereinafter referred to as "the Employer" or "beneficiary")

ent	tered into a Contract with
(he	ereinafter called "the Contractor")
	on the day of 20 for
	(Project Description)
	at
	ID WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with curity by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;
AN	D WHEREAS
has	s/have at the request of the Contractor, agreed to such guarantee;
NC	OW THEREFORE WE,
to t	hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors the Employer under renunciation of the benefits of division and excussion for the due and faithful formance by the Contractor of all the terms and conditions of the said Contract, subject to the owing conditions:
1.	The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorised and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may

- 2. This guarantee shall be limited to the payment of a sum of money.
- 3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.

which the Employer may make, give, concede or agree to under the said Contract

take under such Contract, or of any modification, variation, alteration of the Completion Date

Employer:	Contractor:	
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4. This guarantee shall remain in force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated

	(R_	
•	reserves the right to withdraw from this guciary, whereupon the Guarantor's liability	
We hereby cho	pose our address for the serving of all noti	ces for all purposes arising here from as
IN WITNESS V	WHEREOF this guarantee has been exec	uted by us at
	•	,
on this	day of	20
	day of	20
As witnesses	day of	20
As witnesses		
As witnesses		
As witnesses	Signature Duly authorised to	

Employer:	Contractor:	
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C1.3.2 Blasting Indemnity

Given by
Company Registration No
Address
a *Company incorporated with limited liability according to the company laws of the Republic of South Africa, *Partnership, *Close Corporation, *Public Company (hereinafter called the Contractor) represented herein by in his
capacity as the Contractor's
duly authorised hereto by a resolution of the Contractor dated
attached to this Indemnity.
WHEREAS the Contractor has entered into a Contract with the Johannesburg Water (SOC) Ltd (hereinafter called the Employer) for,
and the Company requires this Indemnity from the Contractor
NOW THEREFORE THIS DEED WITNESSETH that the Contractor does hereby indemnify and hold harmless the Company in respect of all loss or damage that may be incurred or sustained by the Employer by reason of or in any way arising out of or caused by blasting operations that may be carried out by the Contractor in connection with the aforementioned Contract and also in respect of all claims that may be made against the Employer in consequence of such blasting operations, by reason of or in any way arising out of any accidents or damage to persons, life or properly or any other cause whatsoever, and also in respect of all legal or other expenses that may be incurred by the Employer in examining, resisting or settling any such claims; for the due performance of which the Contractor binds itself according to law.
THUS DONE AND SIGNED for and on behalf of the Contractor a on the
day of 20 in the presence of the subscribing witnesses.

Employer:	Contractor:	
Witness:	Witness:	176





Volume 1 Tender and Contract Section C2 Pricing Data

As witnesses			
1			
2		Signature	
	Duly authorised to sign on behalf of		
	Address		

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section C2 Pricing Data

C1.3.3 Health and Safety Contract Between Employer and Contractor In Terms of Section 37(2) Of The Occupational Health and Safety Act No 85 Of 1993

Written agreement between Johann	nesburg Water ((Proprietary) Limited (hereinafter referred to as "the
Employer) and mandatary") as envisaged by Section as amended.	(hereinafter referred to as "the on 37(2) of the Occupational Health and Safety Act, No. 85, of 1993
	representing
	(mandatary) do
hereby acknowledge that	
agreement with duties as prescribe amended so as to ensure that all with the provisions of the said Act. I as contained in the Occupational He	(mandatary) is an employer in its own right and or purposes of the contract work specified in the body of the principal ed in the Occupational Health and Safety Act, No. 85 of 1993 as work will be performed or machinery and plant used in accordance I furthermore agree to comply with the requirements of the Employer ealth and Safety Specification included with the principal agreement ould I, for whatever reason, be unable to perform in terms of this
Signed this day of	at
Signature on behalf of mandatary	
Signature on behalf of Employer	-
Compensation Fund Registration	No. of mandatary
Good Standing Certificate : □ y	res no (tick one box)

Employer:	Contractor:	
Witness:	Witness:	470





Volume 1 Tender and Contract Section C2 Pricing Data

C1.3.4 Health and Safety Contract: General Information

- The Occupational Health and Safety Act comprises Sections 1 to 50 and all un-repealed regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended, as well as other regulations which may be promulgated in terms of the OHS Act.
- 2. 'Mandatary' is defined as including an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or user of plant and machinery
- 3. Section 37 of the Occupational Health and Safety Act potentially punishes employers (principals) for the unlawful acts or omissions of mandataries (contractors) save where a written agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Aid by the mandatary.
- 4. All documents attached or referred to in the above agreement from an integral part of the agreement.
- 5. To perform in terms of this agreement mandataries must be familiar with the relevant provisions of the Act.
- 6. Mandataries who utilise the services of their own mandataries (subcontractors) are advised to conclude a similar written agreement.
- 7. Be advised that this agreement places the onus on the mandatary to contact the Employer in the event of inability to perform as per this agreement. The Employer, however, reserves the right to unilaterally take any steps as may be necessary to enforce this agreement.
- 8. The contractor shall be responsible for the full and proper implementation of the terms and provisions of the Act and its regulations in the area in which the work is to be undertaken by the Contractor.
- 9. The Contractor shall be responsible for the well-being, in relation to health and safety, of all persons coming upon or into such area in accordance with that legislation, including the implementation of any directives issued by management of the Employer in this respect.

10. The work to be done is	
11. The area in which the work is to be conducted is $_$	

12. The Contractor shall familiarise himself with such area and all risks existing thereon and undertakes to report to the representative of the Employer any hazard or risk to health and safety which arises during the contract work in the area concerned and over which the Contractor may have no control. All necessary and appropriate safety / health equipment shall be issued by the Contractor to all persons working on or coming into the area.

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section C2 Pricing Data

C1.3.4.1 Occupational Health and Safet	y Indemnity Undertaking
--	-------------------------

I, the undersigned	
in my capacity as	
of the firm	

- 1. Hereby undertake to ensure that I/my firm and/or employees and/or subcontractors and/or his employees
 - comply strictly with the provisions of the Occupational Health and Safety Act of 1993 (as amended) and/or the regulations promulgated in terms thereof, with specific reference to section 37(2) of the said act, as well as any relevant legislation, in the course of the performance/execution of any service and/or work in, to or on any of the Employer's buildings, construction sites and/or premises;
 - ensure that consultants and/or visitors comply with any instructions and measures relating to occupational health and safety, as prescribed by the Employer; and
 - comply strictly with the statutorily prescribed work systems, operational equipment, machinery and occupational health and safety conditions;
- 2. And as an independent employer and contractor, hereby indemnify, in terms of the above undertakings, the Employer -
 - 2.1 in respect of any costs that I/my firm and/or employees and/or subcontractors and their employees may incur of necessity in compliance with the above undertakings; and
 - against any claims that may be instituted against the Employer and/or any liability that the Employer may incur, whether instituted and/or caused by me/my firm's employees, agents, consultants, subcontractors and/or their employees and visitors or the Employer's clients or neighbours in respect of any incidents related to my/my firm's activities and as a result of which the occupational health and safety of the persons involved have been detrimentally affected; and
 - against similar claims that I, managers or directors of my firm may have against the Employer and any damages for which I, managers or directors of my firm hold the Employer liable.
- 3. My firm's compensation commissioner number is and I confirm that my firm and its subcontractors' fees have been paid up and obligations in respect of the compensation commissioner have been complied with and further that I shall furnish proof thereof in writing on request.
 - 4.0 I hereby confirm that I have the authority to sign this indemnity undertaking and that the Employer is not obliged to confirm such confirmation.

Employer:	Contractor:	
Witness:	Witness:	130





Volume 1 Tender and Contract Section C2 Pricing Data

Signed at		This	day of	
Signature		Capacity		
As witnesses:				
	1			
	2			

Employer:	Contractor:	
Witness:	Witness:	4774



Construction of 20 ML Carlswald Reservoir



Volume 1 Tender and Contract
Section C1 Agreement and Contract Data

Johannesburg Water (SOC) Ltd



CONTRACT JW14302

CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

VOLUME 1

PART 2: PRICING DATA

Employer:	Contractor:	
Witness:	Witness:	132







Volume 1 Tender and Contract
Section C2 Pricing Data

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Employer:	Contractor:	
Witness:	Witness:	122



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C2 Pricing Data

C2 PRICING DATA

C2.1 PRICING INSTRUCTIONS

C2.1.1 General Preamble to the Bill of Quantities

- The Contract is to be constructed using labour intensive methods. In exceptional cases where the use of plant is required, the Contractor must motivate and obtain written permission before the work is undertaken with plant. Payment will not be made for unauthorized use of plant to carry out work.
- b) All items in the Bill of Quantities, except where otherwise specified in Clause 8 of a Standardised Specification or in the Project Specification, shall be measured and shall cover operations as recommended in the standard system of measurement of civil engineering quantities, published under the title "Civil Engineering Quantities", by the South African Institution of Civil Engineering.
- The basis and principles of measurement and payment are described in this section (Pricing c) Instructions) and Clause 8 of each of the Standardised Specifications for Civil Engineering Construction. The applicable SANS 1200 Standardised Specifications are listed in the Scope of Work, Portion 1: Project Specification. Portion 2: comprises the Technical specifications for the works of each discipline in this contract.
- Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the d) Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification or the Scope of Work, conflict with the terms of the Bill of Quantities, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.
- The clauses in a specification in which further information regarding the Schedule item may be e) found are listed in the "Payment Refers" column in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of listed items. Further information and specifications may be found elsewhere in the Contract Documents. Standardised Specifications are identified by the letter or letters which follow SANS in the SANS 1200 series of specifications, e.g. G for SANS 1200G.
- f) Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- g) The quantities set out in the Bill of Quantities are the estimated quantities of the Contract Works, but the Contractor shall be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed Works shall be computed from the actual quantities of work done, valued at the relevant unit rates and/or prices.
- The rates and/or prices to be inserted in the Bill of Quantities are to be the full inclusive prices for h) the work described under the several items. Such rates and/or prices shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents, as well as overhead charges and profit. Reasonable charges shall be inserted as these shall be used as a basis for assessment of payment for additional work that may have to be carried out.

Employer:	Contractor:	
Witness:	Witness:	134



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C2 Pricing Data

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

mm =hour millimetre h kilogram metre m kg = ton (1000kg) km kilometre t m^2 square metre No. number

 m^2 pass = square metre pass sum = lump sum ha = hectare MN = meganewton m^3 = cubic metre MN.m = meganewtom-metre

m³km = cubic metre-kilometre P Csum= Prime Cost sum

I = litre Provisional sum

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

Unit : The unit of measurement for each item of work as defined in the SANS Standard

Specification for South African National Standards.

Quantity: The number of units of work for each item.

Rate: The agreed payment per unit of measurement.

Amount: The product of the quantity and the agreed rate for an item.

Lump sum: An agreed amount for an item, the extent of which is described in the Bills of Quantities, but the quantity of work of which is not measured in any units.

- k) Arithmetical errors in the Bill of Quantities shall be corrected in accordance with Clause C3.9 of the Conditions of Tender. Should there be any discrepancy between rates and/or prices written in the Assessment Schedule and the Bill of Quantities, the latter shall govern.
- I) A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices in the Schedule.
- m) The Bill of Quantities shall be completed by hand in **INK or TYPED**.

C2.1.2 Special Payment Conditions

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

C2.1.2.1 Provided previously

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

- a) clearly state this in his qualifications; and
- b) still provide the associated rates and prices in the schedule in the associated line item, but not calculate an associated amount.

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

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



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Section C2 Pricing Data

C2.1.2.2 Security

The Contractor shall have been deemed to have included all security related costs in the Provisional and General item rates, including allowing for minimum 60% (high risk areas) of the sites requiring security provision for the Employer and Engineer representative(s).

C2.1.2.3 Materials and equipment

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

C2.1.2.4 Permits and way-leaves

All associated costs to obtain permits and way-leaves as required for the execution of the works, where such affect other services, shall be deemed to have been included in the scheduled rates for SANS 1200A or SANS 1200AA or SANS 1200AB where pricing provision for such items have been allowed for in the pricing schedules, alternatively it shall be deemed to be included in the various scheduled activity rates or prices provided by the Contractor

C2.1.2.5 Confined space

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

C2.1.2.6 Payment ONLY for works completed

The Contractor shall note that payment shall only be made for Works activities successfully (delivering the end result) executed, complying with the quality requirements and provided to the Engineer or his duly authorised representative.

C2.1.3 Health and Safety

The principal Contractor's health and safety plan has to follow the framework as laid out in the HEALTH AND SAFETY SPECIFICATION AND ENVIRONMENTAL MANAGEMENT PLAN, as a minimum.

No payment shall be applicable where equipment is not provided and services are not rendered in terms of the approved Health and Safety Plan. Additionally, the Contractor shall also be penalised in terms of Clause (30) of the Occupational Health and Safety Act 183 (1993), Construction Regulations (2014).

C2.1.3.1 Compilation of health and safety plan

Unit: Sum

The rate shall include the complete cost for the provision of resources (human and equipment), communication, transportation and travelling, documentation of activities and reporting activities required to compile a Health and Safety Plan as per the Health and Safety Specifications contained in Volume 3, and approval of such plan thereof. Remuneration shall be a lump sum.

C2.1.3.2 Implementation of health and safety plan

Unit: Sum

The rate shall include the complete cost for the provision of resources (human and equipment), communication, transportation and travelling, documentation of activities and reporting activities required to fully comply with the implementation and maintenance of the Health and Safety Plan. Remuneration shall be on a monthly basis for services rendered, by dividing the total sum tendered by the construction duration.

Safety officer

Unit: Sum

The rate shall include the wages and salary that is to be paid to the safety officer/s, whose responsibility it is to ensure that all activities required fully comply with the Health and Safety Plan as per the Health

Employer:	Contractor:	
Witness:	Witness:	****



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C2 Pricing Data

and Safety Specifications contained in Volume 3 for the duration of the Contract. The rate shall be on a monthly basis for services rendered, by dividing the total sum tendered by the construction duration.

NOTE: The Contractor shall clearly state the number of Health and Safety officers in the provided space in the Bill of Quantities that he has allowed for in his price. Where no number is provided the Employer shall assume that adequate provision, minimum one (1) per site, has been made to implement the provided Health and Safety Plan successfully.

C2.1.4 EMP Implementation and Maintenance

Unit: Sum

The rate shall include the complete cost for the provision of resources (human and equipment), communication, transportation and travelling, documentation of activities and reporting activities required to fully comply with the implementation and maintenance of the EMP contained in Volume 3 for the duration of the Contract. Remuneration shall be on a monthly basis for services rendered, by dividing the total sum tendered by the construction duration.

No payment shall be applicable where equipment is not provided and services are not rendered in terms of the approved EMP.

C2.1.5 Subcontracting

C2.1.5.1

The Contractor shall ensure that rates that are tendered (during Tender Stage) for work items that are likely to be Subcontracted, are market related rates. Provision is made in the Bill of Quantities (BoQ) for the Contractor to add a mark-up for the sourcing, handling, and management of Subcontractors, SMME's, and the like, for the duration of the Contract.

C2.1.5.2

The Contractor shall ensure that rates that are tendered (during Tender Stage) for work items that are likely to be Subcontracted, are market related rates. Provision is made in the Bill of Quantities (BoQ) for the Contractor to add a mark-up for the sourcing, handling, and management of Subcontractors, SMME's, and the like, for the duration of the Contract.

C2.1.5.3

On or during appointment of Subcontractors, should Subcontractors **prove** that rates, that have been tendered by the Contractor for BoQ work items that are being subcontracted, are not market related, the Contractor will be liable to cover the cost of the difference, i.e. the difference in rate tendered by the Contractor versus the rate that is being requested by the Subcontractor. This difference in cost will be for the Contractor's account, and no Variation Orders for additional costs will be entertained by the Employer. The Contractor bears the full and complete risk for the rates that have been tendered by the Contractor during Tender Stage.

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract Section C2 Pricing Data

C2.1.5.4

In the event that a rate supplied by the Contractor for a specific BoQ work item is not sufficient to cover Subcontractor costs/rates for that specific item, the Contractor shall provide a detailed rate breakdown for that specific BoQ item (and each and every subsequent BoQ work item where the rate is not sufficient to cover Subcontractor cost); and shall indicate costs (amongst others) for labour, material, handling, mark-ups, etc. to prove that the rate that was submitted during tender stage was in fact market related; and in balance with other rates that were submitted for work items that will not be undertaken by Subcontractors.

C2.1.5.5

Should any delays be experienced during the period of the Contract due to the appointment of subcontractors by the Contractor, work stoppages by subcontractors, industrial action by subcontractors, etc. such delays shall be assigned to the Contractor, and no claims for Extension of Time will be entertained by the Employer

C2.1.6 Recommended Labour-Intensive Tasks

ACTIVITY	TOOLS	TASK
Bush clearing	Axe, saw, rope	Medium dense bush (4 to 7 bushes per 100 m²) 350 m²/md Dense bush (10 to 15 bushes per 100 m²) 200 m²/md Very dense bush (20 to 30 bushes per 100 m²) 100 m²/md
Grass clearing Stripping ground cover and grubbing out roots, haul to nearby dump and spread Grubbing out roots to 250 mm deep	Slasher, spade, hoe, fork, rake. Pick, shovel, fork, rake Pick, shovel, fork, rake	Dense grass 85 m²/md Light vegetation, dig to 50 mm deep 150 m²/md Medium vegetation, dig to 100 mm deep 75 m²/md Heavy vegetation, dig to 150 mm deep 40 m²/md Dig in soft ground to remove roots 42 m²/md
Destumping (removal of stumps large roots)	Pick, shovel, axe	Medium dense bush 60 m²/md
Removal of bush and tree cuttings	Bush hook, rope, axe, saw	Cut, bundle and load branches, tree trunk pieces, other vegetation 8 m³/md
Boulder removal	Crowbar	Daily paid
Excavation (measured in place)		Throwing distance: up to 4 m 4 to 6 m

Employer:	Contractor:	
Witness:	Witness:	4710





Volume 1 Tender and Contract

Section C2 Pricing Data

		T				1
Loose soil Sticky soil Firm soil		Shovel Spade, fork, forked hoe	5 to 6 m³/md 4.5 to 5 m³/md 2 to 3 m³/md 1.5 to 2 m³/md 3 to 4.5 m³/md 2.5 to 4 m³/md		/md	
Hard stony gravel		Pick, shovel, spade, hoe Pick, shovel, crowba	1.5 to 2 m ³ /mc	d 1 to 1.5 m³/md		³ /md
Loading (measured loose) into: Wheelbarrow Trailer		Shovel	12 to 15 m ³ /m ² 7 to 10 m ³ /m ²	Loose soil or gravel: 12 to 15 m³/md 7 to 10 m³/md		
Truck			4 to 6 m ³ /mc	d		
Wheel-barrow haul (measured loose; haul and unload only)	(Not incre haul decr	elbarrow e production eases 30% for good route and eases 30% for poor route)	Equivalent had distance = length 10(rise + fall) 20 m 40 60 80 100 120 140 160 180 200		loose	ction in m3/md verage oute
Levelling roadbed (measured loose)		vel, spreader n²/md	60 m ² /md			
Picking loose roadbed (bank m³)	Pick	, shovel, fork	40 m ² /md			
Spreading loose material (loose m³)	Sho	vel, spreader, hoe	Soil 12 loose m³/md Gravel 10 loose m³/md			
Watering, mixing, spreading and levelling	I	vel, spreader, hoe, g-lines, water ser	Sandy soil 4.5 m³/md Gravel 3 m³/md (measured tight after compaction)			
Compaction and re- levelling	strai spre	er, string lines, ghtedge, shovel, ader.	Depends upor	n chosen	roller (se	e below)
Compaction by pedestrian-controlled double drum vibro-roller	R75	mpede" rollers: /50 S /55 S	Mass kg 980 1 350	Passes 5 4	Layer 100 mm 100 mm	Output 8 m³/h 13 m³/h (tight)
• • • • • • • • • • • • • • • • • • •		npressor, pneumatic s, team of 4 people	Intermediate Rock	19 m ³ fo 12 m ³ fo		
Screen bedding material	Siev	e, shovel	7 m³ loose /ma			
Offload flat-bed truck or trailer	Sho		15 m ³ loose /n	nd 		
Trench backfill, hand compaction		vel, spreader, hand- nper, watering can	Backfill, compa	act, clean 4.5 m³/mo		oad

Employer:	Contractor:	
Witness:	Witness:	



CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract

Section C2 Pricing Data

Collecting loose stone	Gloves, wheelbarrows	Up to 20 m 2.5 m ³ /md 20 to 50 m 2.0 m ³ /md
Quarrying, prying out cracked rock	Crowbar, gloves, sledgehammer.	Up to 20 m 0.5 to 1 m ³ /md
Rock crushing	New Dawn Engineering hand-turned rock crusher, shovel	0.25 m ³ /md (depends on size of feed- stock and size of product)
Backfill trench and compact	Shovel, watering can, hand stamper	3.0 m ³ /md
Lay kerbing on level base	Shovel, rubber mallet, string-line, trowel, wheelbarrow	Straight 6.5 to 10.0 m/md Curved 2.0 to 5.0 m/md
Stone pitching: Plain stone pitching	Club hammer, gloves, string-line, shovel,	10 to 15 m ² /md, 200 mm thick
Grouted stone pitching Wired and grouted stone pitching	wheelbarrow, stiff broom, pliers, short crowbar	6 to 10 m ² /md, 200 mm thick 3 to 5 m ² /md, 200 mm thick
Block paving: placing bedding sand, laying blocks, compacting, joint filling, clean up	Shovel, screed rails and beam, rubber mallet, plate compactor, bass broom, wheelbarrow, gloves	16 to 20 m ² /md
Stormwater drainage pipes: trimming, bedding, laying, backfilling, compaction	Shovel, rake, boning rods, hand stamper, watering can, rope and ground anchors	450 mm dia concrete: 1.2 m/md (needs team of 10) 600 mm dia concrete: 1.0 m/md (needs team of 10) 450 mm dia plastic: 3.5 m/md (needs team of 5)
Concrete base slab: batch, mix, transport, pour and finish off	Batching boxes, wheelbarrow, shovel, screed beam, wood float	0.8 m ³ /md (needs team of 5)
Stone masonry walls	Wheelbarrow, shovel, trowel, club hammer, string line, spirit level, batching box.	1.0 m ³ /md
Gabion work	Gloves, string-line, shovel, wheelbarrow, pliers, short crowbar	1.5 m ³ /md

ABBREVIATIONS USED

md = man-day dia = diameter

Source:

Construction Education and Training Authority, Learning Material for Unity Standard 15165: "Use LIC

Employer:	Contractor:	
Witness:	Witness:	





Volume 1 Tender and Contract
Section C2 Pricing Data

C2.2 BILL OF QUANTITIES

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES



PIPE SCHEDULE

Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount
SECTION	SECTION 4: RESERVOIR						
OVERFLO	W PIPI	NG					
OF-001	350	SS 304 3mm w.t.	FLANGED BELLMOUTH, O.A. 6000mm, BELLMOUTH 550mm DIA.	6000	1		
OF-002	350	SS 304 3mm w.t.	FLANGED 90° SHORT RADIUS BEND. ONE END 360mm C. to F. OTHER END 2635mm C. to F.	2635	1		
OF-003	350	SS 304 3mm w.t.	FLANGED PIPE, O.A. 2950mm	2950	1		
SCOUR P	IPING						
JUJUN F							
SP-001	150	SS 304 3mm w.t.	90° SHORT RADIUS BEND ONE END 230mm C. TO F. AND FLANGED, OTHER END 960mm C. to F. WITH BELLMOUTH OD OF 245mm	230	1		
SP-002	150	SS 304 3mm w.t.	FLANGED PIPE O.A.3200mm	3200	1		
DRAIN PIF	PING				•		
DR-001	150	SS 304 3mm w.t.	FLANGED 90° SHORT RADIUS BEND. ONE END 230mm C. TO F. OTHER END PLAIN 395mm O.A. WITH PUDDLE FLANGE 100mm FROM PLAIN END	988	1		
DR-002	150	SS 304 3mm w.t.	FLANGED PIPE 0.A 6000mm	6000	2		
DR-003	150	SS 304 3mm w.t.	FLANGED PIPE 0.A 4380mm	4380	1		
DR-004	150	SS 304 3mm w.t.	FLANGED 24° MEDIUM RADIUS BEND 230mm C. to F.	230 Co	1		
DR-005	150	SS 304 3mm w.t.	FLANGED PIPE O.A.5430mm	5430	1		
			TOTAL CARRI	ED TO ITEM 4.2.1			

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES



PIPE SCHEDULE

Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount
SECTION	SECTION 5: CHAMBERS AND BOXES						
SCOUR B	ОХ						
SB-001	150	SS 304 3mm w.t.	PUDDLE PIPE O.A.1300mm. BOTH ENDS FLANGED WITH PUDDLE FLANGE 650mm FROM ONE END.	650 1300	1		
SB-002	150	SS 304 3mm w.t.	PUDDLE PIPE O.A.1300mm. BOTH ENDS FLANGED WITH P.F. 650mm FROM ONE END AND 50mm BOSS 250mm FROM OTHER END	650 250	1		
SB-003	350	SS 304 3mm w.t.	PUDDLE PIPE 0.A 2600mm. ONE END FLANGED WITH PUDDLE FLANGE 650mm FROM FLAGED END.	2600	1		
SB-004	150	SS 304 3mm w.t.	PUDDLE PIPE 0.A 1020mm. BOTH ENDS PLAIN WITH PUDDLE FLANGED 250mm FROM END.	250	2		
SB-005	150	Coated M.S.	FLANGED ADAPTOR		2		
V-001	150	D.I.	WEDGE GATE VALVE, PN10, NON RISING SPINDLE, CLOCKWISE CLOSING, COMPLETE WITH HANDWHEEL, DUCTILE IRON BODY AND COVER, STAINLESS STEEL SPINDLE, "O" RING GLAND SEAL ARRANGEMENT, PINNED GUNMETAL SEATS	-	2		
V-002	50	SS 304	THREADED BALL VALVE	-	1		
			TOTAL CARRIE	ED TO ITEM 5.1.6.1			
INI ET EL 4	OW ME	TER CHAM	RED				
IFC-001	500	SS 304	PUDDLE PIPE O.A. 1300mm. BOTH ENDS FLANGED WITH PUDDLE FLANGE 650mm FROM ONE END.	650	2		
IFC-002	500	SS 304 3mm w.t.	FLANGED PIPE O.A. 2100mm	2100	1		
IFC-003	500	Coated M.S.	FLANGE ADAPTOR		1		
			TOTAL CARRIE	D TO ITEM 5.2.6.1			

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES



PIPE SCHEDULE

Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount
OUTLET F	DUTLET FLOW METER CHAMBER						
OFC-001	500	SS 304 4mm w.t.	PUDDLE PIPE O.A.1300mm. BOTH ENDS FLANGED WITH PUDDLE FLANGE 650mm FROM ONE END.	650	2		
OFC-002	500	SS 304 4mm w.t.	PIPE O.A.2100mm, ONE END FLANGED OTHER END PLAIN	2100	1		
OFC-003	500	Coated M.S.	FLANGE ADAPTOR	— <u>————————————————————————————————————</u>	1		
			TOTAL CARRIE	ED TO ITEM 5.3.6.1			
VALVE CH	HAMBE	RS					
VC-001	500	SS 304 4mm w.t.	PUDDLE PIPE O.A.1300mm. BOTH ENDS FLANGED WITH PUDDLE FLANGE 650mm FROM ONE END.	1300	3		
VC-002	500	SS 304 4mm w.t.	UN-EQUAL TEE, PLAIN ENDED BRANCH 810mm C. to F. 850mm C. to F. FROM FLANGED END, OTHER END PLAIN 715mm C. to F.	850 715	1		
VC-003	500	Coated M.S.	FLANGE ADAPTOR		2		
VC-004	500	D.I.	WAFER TYPE KNIFE GATE VALVE WITH STAINLESS STEEL BLADE AND SPINDLE, PN10, O.A. 100mm		2		
VC-005	600	SS 304 5mm w.t.	PUDDLE PIPE O.A.1300mm. BOTH ENDS FLANGED WITH PUDDLE FLANGE 650mm FROM ONE END.	650	3		
VC-006	600	SS 304 5mm w.t.	UN-EQUAL TEE, PLAIN ENDED BRANCH 800mm C. to F. 850mm C. to F. FROM FLANGED END, OTHER END PLAIN 700mm C. to F.	850 700	1		
VC-007	600	Coated M.S.	FLANGE ADAPTOR		2		
VC-008	600	D.I.	WAFER TYPE KNIFE GATE VALVE WITH STAINLESS STEEL BLADE AND SPINDLE, PN10, O.A. 110mm		2		
			TOTAL GARRIE	D TO ITEM 5 5 6 4			
	TOTAL CARRIED TO ITEM 5.5.6.1						

Employer:	Contractor:	
Witness:	Witness:	







Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount		
					•				
SECTION	SECTION 6: INTERCONNECTING PIPEWORK								
INLET PIP	PING		I						
IP-001	500	Coated M.S. 5mm w.t.	FLANGED PIPE O.A.600mm	6000	9				
IP-002	500	Coated M.S. 5mm w.t.	PIPE PME EMD FLANGED O.A.6000mm	6000	1				
IP-003	500	Coated M.S.	FLANGE ADAPTOR	- -	1				
IP-004	500	Coated M.S. 5mm w.t.	FLANGED PIPE O.A.3850mm	3850	1				
IP-005	500	Coated M.S. 5mm w.t.	FLANGED PIPE O.A.3000mm	3000	1				
IP-006	500	Coated M.S. 5mm w.t.	FLANGED PIPE O.A.4950mm	4950	1				
IP-007	500	Coated M.S. 5mm w.t.	FLANGED PIPE O.A.1450mm	1450	1				
IP-008	500	Coated M.S. 5mm w.t.	FLANGED 90° MEDIUM RADIUS BEND. ONE END 1020mm c. TO F. OTHER END 4100mm C. TO F.	4100	1				
IP-009	500	Coated M.S. 5mm w.t.	FLANGED 90° SHORT RADIUS BEND. ONE END 5035mm C. TO F. OTHER END 510mm C. TO F.	5035	1				
IP-010	500		UNEQUAL 90° SHORT RADIUS BEND, ONE END PLAIN 510mm C. to F. OTHER END FLANGED 1510 C. to F. WITH P.F. 690mm FROM FLANGED END	01510	1				
			TOTAL CARRI	ED TO ITEM 6.2.5					

Employer:	Contractor:	
Witness:	Witness:	







Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount
			•				
OUTLET F	PIPING						
OP-001	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A.6000mm	6000	8		
OP-002	600	Coated M.S. 6mm w.t.	PIPE ONE END FLANGED O.A.5300mm	5300	1		
OP-003	600	Coated M.S.	FLANGE ADAPTOR		1		
OP-004	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A.5150mm	5150	1		
OP-005	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A.3000mm	3000	1		
OP-006	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A.5100mm	5100	1		
OP-007	600	66 304	UNEQUAL 90° MEDIUM RADIUS BEND, ONE END FLANGED 2715mm C. to F. OTHER END WITH BELLMOUTH 1790mm C. to F.	1790	1		
			TOTAL CARRI	ED TO ITEM 6.2.6			

Employer:	Contractor:	
Witness:	Witness:	







Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount	
v								
SECTION	SECTION 9: VALVE BUILDING							
VALVE B	UILDING	3						
VB-001	600	SS 304 5mm w.t.	PUDDLE PIPE O.A.900mm BOTH ENDS FLANGED WITH PUDDLE FLANGE 450mm FROM ONE END.	1300	2			
VB-002	600	Coated M.S. 6mm w.t.	FLANGED 90° Y-PIECE, BRANCHES 1265mm C to F. MAIN PIPE 320mm C. to F. WITH 50mm BOSS 320mm FROM MAIN FLANGED END	55.	1			
VB-003	600	Coated M.S. 6mm w.t.	STANDARD D.F 45° SHORT RADIUS BEND, 610mm C TO F.	15.	4			
VB-004	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A.730mm WITH 25mm BOSS 250mm FROM ONE END.	730 250	2			
VB-005	600	Coated M.S.	FLANGE ADAPTOR		2			
VB-006	600	Coated M.S. 6mm w.t.	UN-EQUAL TEE, ONE END FLANGED 610mm C.to F. OTHER END PLAIN 2790mm C. to F. WITH FLANGED ENDED BRANCH 610mm C. to F.	610 2790	2			
VB-007	100X 600	Coated M.S.	600ø BLANK FLANGE DRILLED FOR 100ø PIPE O.A.335mm WITH FLANGED END	100ø FLANGE 600ø FLANGE 335	2			
VB-008	600	M.S.	FLANGED 90° Y-PIECE, BRANCHES 1265mm C to F. MAIN PIPE 320mm C. to F.	55.	1			
VB-009	600	Coated M.S. 6mm w.t.	FLANGED PIPE O.A. 1940mm	1940	1			
VB-010	500	SS 304 4mm w.t.	D.F. PUDDLE PIPE O.A.1300mm. WITH P.F. 650mm FROM ONE END.	650	2			
SUB-TOT	AL CAR	RIED FOR	WARD		l .			

Employer:	Contractor:	
Witness:	Witness:	







Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount
			brougl	nt forward			
VALVE BI	UILDING	G (CONTINI	JED)				
VB-011	500	Coated M.S. 5mm w.t.	FLANGED 90° Y-PIECE, BRANCHES 1100mm C. to F. MAIN PIPE 300mm C. to F.	55 58	1		
VB-012	500	Coated M.S. 5mm w.t.	STANDARD D.F 45° SHORT RADIUS BEND 510mm C. TO F.	015	4		
VB-013	500X 300	Coated M.S. 4mm w.t.	FLANGED ECCENTRIC 500mm to 300mm REDUCER AND 300mm DIA. PIPE O.A.1110mm	1110	2		
VB-014	300	Coated M.S.	FLANGE ADAPTOR		4		
VB-015	300	Coated M.S. 4mm w.t.	PIPE ONE END FLANGED O.A.800mm	800	2		
VB-016	300	Coated M.S. 4mm w.t.	PIPE ONE END FLANGED 0.A. 2000mm.	2000	2		
VB-017	500	Coated M.S. 5mm w.t.	FLANGED 90° Y-PIECE, BRANCHES 1100mm C. to F. MAIN PIPE 300mm C. to F. WITH 50mm THREADED ENDED BOSS 300mm FROM FLANGED END AT THE BOTTOM AND A 100mm DIA. FLANGED ENDED BOSS AT THE TOP.	5	1		
V-005	600	D.I.	WEDGE GATE VALVE, PN10, NON RISING SPINDLE, CLOCKWISE CLOSING, GEARBOX OPERATED COMPLETE WITH HANDWHEEL, DUCTILE IRON BODY AND COVER, STAINLESS STEEL SPINDLE, "O" RING GLAND SEAL ARRANGEMENT, PINNED GUNMETAL SEATS, O.A. 600mm	-	2		
V-006	100	SS 304	FLANGED BALL VALVE	-	2		
V-007	100	SS 304	DOUBLE ORIFICE AIR RELEASE AND VACUUM BREAKER VALVE WITH ANTI SHOCK MECHANISM		2		
	SUB-TOTAL CARRIED FORWARD						

Employer:	Contractor:	
Witness:	Witness:	







Mark on dwg	NB (mm)	Mat	Decription	Sketch	No.	Rate	Amount	
	brought forward							
VALVE BI	UILDING	G (CONTINI	JED)					
V-008	600	D.I.	FLANGED TILITING DISC NON-RETURN VALVE	-	2			
V-009	300	D.I.	WEDGE GATE VALVE, PN10, NON RISING SPINDLE, CLOCKWISE CLOSING, GEARBOX OPERATED COMPLETE WITH HANDWHEEL, DUCTILE IRON BODY AND COVER, "O" RING GLAND SEAL ARRANGEMENT, PINNED GUNMETAL SEATS, O.A. 380MM	₩	4			
V-010	300	D.I.	HYDRAULIC CONTROL VALVE INCLUDING 20mm SS BI-LEVEL CONTROL PILOT INSIDE RESERVOIR WITH 15mm SS CONNECTION PIE		2			
V-011	300	Coated M.S. 4mm w.t.	FLANGED BASKET STRAINER, O.A. 800mm		2			
V-012	50	SS 304	THREADED BALL VALVE	*	2			
V-013	50	SS 304	DOUBLE ORIFICE AIR RELEASE AND VACUUM BREAKER VALVE WITH ANTI SHOCK MECHANISM		1			
V-014	600	D.I.	WAFER TYE KNIFE GATE VALVE, PN 10, STAINLESS STEEL BLADE AND SPLINDLE, O.A 110mm.	₩	4			
V-015	300	D.I.	WAFER TYPE KNIFE GATE VALVE, PN 10, STAINLESS STEEL BLADE AND SPINDLE, O.A. 70mm	*	4			
V-016	25	SS 304	THREADED BALL VALVE	₩-	2			
	TOTAL CARRIED TO ITEM 9.1.10							

Employer:	Contractor:	
Witness:	Witness:	



Johannesburg Water

SCHEDULE OF QUANTITIES

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANS 1200A	SECTION 1: PRELIMINARY & GENERAL				
1.1	8.3	FIXED CHARGE AND VALUE RELATED ITEMS				
	8.3.1	Contractual Requirements				
1.1.1		Surety or Bank Guarantee	Sum	1		
1.1.2		Insurance of Works	Sum	1		
1.1.3		Common Law Liability Insurance	Sum	1		
1.1.4		Third Party Insurance	Sum	1		
1.1.5		Insurance of Construction Plant and Equipment	Sum	1		
1.1.6	PSA 8.3.1	Initial Insurance Deductible	Sum	1		
1.1.7a		Any Other Insurances that the Tenderer deems necessary to comply with Insurance requirements (Detail)	Sum	1		
1.1.7b		Other (Detail)	Sum	1		
		Forward Cover				
1.1.8	PS 6.18	In respect of the total value of imported content of goods used in the reservoir from page RD30 Imported Content Sheet R				
1.1.9		Allow a Provisional Sum to cover variation in exchange rate prior to obtaining forward cover. Tenderer is to insert an amount = 20% of the above amount from Item 1.1.8	Prov. Sum	1		
1.1.10		Allow a Provisional Sum to cover the cost of forward cover Tenderer is to insert an amount = 10% of the above amount from item 1.1.8	Prov. Sum	1		
1.1.11		Allowance as a percentage of the PC value of items under 1.1.9 and 1.1.10 for Contractor's cost and profit. Tenderer to insert the summed amount (calculated under 1.1.9 and 1.1.10) in the "Qty" column, and state percentage in the "Rate" column.	%			
	8.3.2	Establish Facilities on the Site				
	8.3.2.1	Facilities for the Employer's Agent				
1.1.12	PS 5.6.1	(a) Offices (3 no. off)	Sum	1		
1.1.13		(c) Nameboards	Sum	2		
1.1.14	PSA 8.3.2.1	(d) Latrine facilities	Sum	1		
1.1.15	PSA 8.3.2.1	(e) Boardroom to accommodate 15 people	Sum	1		
1.1.16	PSA 8.3.2.1	(f) Carports (5 off)	Sum	1		
1.1.17	PSA 8.3.2.1	(h) Construction and setting out of survey beacons, including beacons to confirm property boundaries	No.	8		
1.1.18	PSA 8.3.2.1	(i) Furniture for offices and meeting rooms	Sum	1		
1.1.19	PSA 8.3.2.1	(j) Laptop, Data and Software	Sum	1		
	8.3.2.2	Facilities for the Contractor				
1.1.20		(a) Offices and Storage Sheds	Sum	1		
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		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES

ITEM NO	PAYMENT CLAUSE		UNIT	QTY	RATE	AMOUNT
		brought forward				
1.1.21		(b) Workshops	Sum	1		
1.1.22		(c) Laboratories	Sum	1		
1.1.23		(e) Ablution and Latrine Facilities	Sum	1		
1.1.24	PSA 8.3.2.2	(f) Tools and Equipment	Sum	1		
1.1.25		(g) Water Supplies, Electric Power & Communications	Sum	1		
1.1.26		(h) Dealing with Water	Sum	1		
1.1.27		(i) Access	Sum	1		
1.1.28		(j) Plant	Sum	1		
1.1.29	PSA 8.3.2.2	(k) Security of the works	Sum	1		
1.1.30	PSA 8.3.2.2	(I) Personal protection equipment	Sum	1		
1.1.31	8.3.3	Other Fixed Charge Obligations	Sum	1		
1.1.32	8.3.4	Removal of Site Establishment	Sum	1		
1.1.33		Compliance with the Occupational Health and Safety Act and Specification (Including compliance with COVID-19 Regulations)	Sum	1		
1.1.34		Compliance with the Environmental Management Plan and Vegetation Management Plan	Sum	1		
1.1.35		Hazard Identification and Risk Assessment	Sum	1		
1.1.36		Construction Safety Officer and Other Appointments	Sum	1		
1.1.37		Work Skills Plan and Implementation Report to CETA	Sum	1		
1.1.38		Pre-Employment Medical Examinations	Sum	1		
1.2	8.4	TIME RELATED ITEMS				
	8.4.1	Contractual Requirements				
1.2.1		Surety or Bank Guarantee	Sum	1		
1.2.2		Insurance of Works	Sum	1		
1.2.3		Common Law Liability Insurance	Sum	1		
1.2.4		Third Party Insurance	Sum	1		
1.2.5		Insurance of construction plant and equipment	Sum	1		
1.2.6a		Any Other Insurances that the Tenderer deems necessary to comply with Insurance requirements (Detail)	Sum	1		
1.2.6b		Other (Detail)	Sum	1		
	8.4.2	Operation and Maintenance of facilities on site, for the duration of construction, except where otherwise stated				
	8.4.2.1	Facilities for Employer's Agent for the Duration of Construction				
1.2.7		(a) Furnished offices (3 no. off.)	Sum	1		
1.2.8		(c) Nameboards	Sum	1		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





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SCHEDULE OF QUANTITIES

ITEM NO	PAYMENT CLAUSE		UNIT	QTY		RATE	A	MOUNT
1.2.9	PSA 8.4.2.1	brought forward (e) Latrine facilities for the sole use of the Employer's Agent	Sum	1				
1.2.10	PSA 8.4.2.1	(f) Boadroom to accommodate 15 personnel	Sum	1				
1.2.11	PSA 8.4.2.1	(g) Carports (5 off)	No.	5				
1.2.12	PSA 8.4.2.1	(h) Construction and setting out of survey beacons	No.	8				
1.2.13	PSA 8.4.2.1	(i) Furniture for offices and meeting rooms	Sum	1				
1.2.14		(j) Laptop, Data and Software	Sum	1				
	8.4.2.2	Facilities for the Contractor						
1.2.15		(a) Offices and Storage Sheds	Sum	1				
1.2.16		(b) Workshops	Sum	1				
1.2.17		(c) Laboratories	Sum	1				
1.2.18		(e) Ablution and Latrine Facilities	Sum	1				
1.2.19		(f) Tools and Equipment	Sum	1				
1.2.20		(g) Water supplies, electricpower and communications, dealing with water and access	Sum	1				
1.2.21		(h) Dealing with water	Sum	1				
1.2.22		(i) Access	Sum	1				
1.2.23		(j) Plant	Sum	1				
1.2.24	PSA 8.4.2.2	(k) Security of the works	Sum	1				
1.2.25	PSA 8.4.2.2	(I) Water tanker for dust suppression	Sum	1				
1.2.26	PSA 8.4.3	Supervision for the duration of the Contract	Sum	1				
1.2.27	8.4.4	Company and head office overhead costs for the duration of the contract	Sum	1				
1.2.28		Compliance with the Occupational Health and Safety Act and Specification (Including compliance with COVID-19 Regulations)	Sum	1				
1.2.29		Compliance with the Environmental Management Plan and Vegetation Management Plan	Sum	1				
1.2.30		Construction Safety Officer and Other Appointments	Sum	1				
1.2.31		Work Skills Plan and Implementation Report to CETA	Sum	1				
1.2.32		Compliance with contractual reporting requirements and managing of processes for local content	Sum	1				
1.2.33	8.4.5	Other time-related obligations	Sum	1				
1.3	PSA 8.5	SUMS STATED PROVISIONALLY BY THE EMPLOYER'S AGENT						
1.3.1	(b) (3)	(a) Provisional sum for control testing to be carried out as required by the Employer's Agent including testing of the structure	Prov. Sum	1	R	100 000.00	R	100 000.00
1.3.2		(b) Additional tests ordered by the Employer's Agent	Prov. Sum	1	R	50 000.00	R	50 000.00
1.3.3		(c) Community Liaison Officer (CLO)	Prov.Sum	1	R	255 000.00	R	255 000.00
1.3.4		(d) Training of targetted labour and SMME's	Prov.Sum	1	R	1 000 000.00	R	1 000 000.00
1.3.5		(e) Skills Development and Training	Prov.Sum	1	R	864 000.00	R	864 000.00
1.3.6		(f) Signage for buildings	Prov.Sum	1	R	50 000.00	R	50 000.00
1.3.7		(g) GPR survey	Prov.Sum	1	R	100 000.00	R	100 000.00
		SUB-TOTAL CARRIED FORWARD						

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
1.3.8		(h) Protection of existing services	Prov.Sum	1	R 150 000.00	
1.3.9		(i) Application for Environmental regulation	Prov.Sum	1	R 50 000.00	
1.3.10		(j) Environmental Control Officer	Prov.Sum	1	R 144 000.00	
1.3.11		(k) Full time Environmental Liaison Officer	Prov.Sum	1	R 720 000.00	R 720 000.00
1.3.12		(I) Project Mentor or support services for the Contractor or for Sub- contractors, SMME's, etc.	Prov.Sum	1	R 3 660 000.00	R 3 660 000.00
1.3.13		(m) Contractor's percentage to cover cost of handling for items 1.3.1 to 1.3.12	%	R 7 143 000		
1.4	8.7	DAYWORK				
1.4.1	PSA 8.7.1	Expenditure on dayworks	Prov.Sum	1		R 200 000.00
	PSA 8.7.2	Extra over item 1.4.1 for supervision, overheads and all other costs related to the Daywork items under item 1.4.2 to 1.4.4 for the following:				
1.4.2		(a) Skilled labourers	%	75 000		
1.4.3		(b) Unskilled labourers	%	75 000		
1.4.4		(c) Material	%	50 000		
	PS 8.7.3	Plant Hire Rates				
		The appropriate types and sizes (T&S) of the plant shall be stated in the space provided:				
1.4.5		Mobile cranes (Type & Size)	hrs	24		
1.4.6		Front-end loader (T&S)	hrs	40		
1.4.7		Bulldozer (T&S)	hrs	40		
1.4.8		Grader (T&S)	hrs	40		
1.4.9		Excavators (T&S)	hrs	40		
1.4.10		Tip Trucks (T&S)	hrs	40		
1.4.11		TLB's (T&S)	hrs	40		
1.4.12		Portable compressor and breakers etc. (T&S	hrs	40		
1.4.13		Portable pumps and hoses (T&S)	hrs	40		
1.4.14		Others give full details:				
			rate/hr			
			hrs only			
1.5	PSA 8.8	TEMPORARY WORKS				
1.5.1	PSA 8.8.2	Dealing with traffic and maintain Roads	Sum	1		
	PSA 8.8.4	Relocation of services				
1.5.2		Excavation for exposing services in the following depth ranges below ground level:				
		(a) 0.0m up to 2.0m:				
1.5.3		(i) Soft material	m³	60		
1.5.4		(ii) Intermediate material	m³	180		
1.5.5		(iii) Hard material	m³	60		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SCHEDULE OF QUANTITIES

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
		(b) Exceeding 2.0m up 4.0m:				
1.5.6		(i) Soft material	m³	64		
1.5.7		(ii) Intermediate material	m³	192		
1.5.8		(iii) Hard material	m³	64		
1.6	PSA 8.9	DELAYS				
1.0	1 0/1 0.3	Delay due to total work stoppage (the Daily rate must equal the total of				
1.6.1		the Daily Time Related P&G Cost. Only this Daily rate will be paid in the event of ANY approved delays to the Due Completion Date of the Contract)	days	20		
1.7	PSA 8.10	SUBCONTRACTORS (SMME's)				
1.7.1		Fixed-Charge items for the sub-contractors Contractual Requirements				Refer to Summary Page
1.7.2	PSA 8.10.2	Overhead, charges and profit for the Main Contractor to provide for fixed-charge items for the sub-contractors Contractual Requirements				Refer to Summary Page
1.7.3		Time Related items for the sub-contractors Contractual Requirements				Refer to Summary Page
1.7.4	PSA 8.10.3	Overhead, charges and profit for the Main Contractor to provide for time related items for the sub-contractors Contractual Requirements				Refer to Summary Page
1.7.5	PSA 8.10.4	Provisional Sum to cover costs incurred by the Contractor when making payments of behalf of the sub-contractor (ref Contract Data) or to provide ad-hoc services on behalf of the sub-contractor	Prov.Sum	1	R 100 000.00	R 100 000.00
		provide at the services on period of the services				
		TOTAL FOR SECTION 1 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 2: SITE PREPERATION & FENCING

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 2: SITE PREPARATION & FENCING				
2.1	SANS	SITE CLEARANCE				
2.1.1	1200C 8.2.1	Clear and grub small trees and bushes	ha	2		
2.1.2	8.2.1	Clear and grub strip 2 m wide for fence	m	455		
2.2	SANS	EARTHWORKS				
2.2	1200D					
	8.3.1	Site Preparation				
2.2.1	8.3.1.2	Remove topsoil to nominal depth of 150 mm, stockpile and maintain (only where ordered by the Engineer)	m²	12682		
	PSD 8.3.2	Bulk Excavation				
	8.3.2 (a)	Excavate in all materials and use for embankment or backfill or dispose as ordered within freehaul distance				
2.2.2		(1) Excavate to main terrace level of reservoir and ancilliary structures and dispose	m³	2560		
2.2.3		(2) Excavate to main terrace level of access road and dispose	m³	250		
2.2.4		Extra over items 2.2.2 to 2.2.3 for additional excavations required by the Engineer after excavation has been completed	m³	820		
	8.3.2(b)	Extra over items 2.2.2 to 2.2.3 for excavations in:				
2.2.5		(1) Intermediate material	m³	1686		
2.2.6		(2) Hard rock material	m³	843		
2.2.7	8.3.6	Overhaul	m³.km	200		
	PSBA	Landscapping and Grassing				
		Trimming:				
2.2.8	PSBA 8.1 (a)	Machine trimming areas to receive grass	m²	5290		
		Preparing areas for grassing (Only where no trimming was done)				
2.2.9	PSBA 8.3 (a)	Scarifying where ordered by the Engineer	m²	1058		
	PSAB 8.3 (b)	Top soiling (100mm thick) with:				
2.2.10		Topsoil obtained from stockpile on site	m²	529		
2.2.11		Topsoil obtained by the Contractor (from commercial sources)	m²	5290		
	PSAB 8.3 (d)	Supplying and applying of Chemical Fertiliser @ 50g/m ²				
2.2.12		2:3:2 (22) Fertilizer	kg	264.5		
	PSVA 8.4	Grassing				
2.2.13	PSVA 8.4 (b)	Kikuyu sodding	m²	1587		
2.2.14	PSVA 8.4 (d)	Hydroseeding mix	m²	794		
2.2.15	PSVA 8.7	Dealing with weeds	m²	1323		
2.2.16	PSVA 8.8	Extra over for Landcapping	Prov. Sum	1		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







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SECTION 2: SITE PREPERATION & FENCING

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
2.3		ACCESS CONTROL AND FENCING				
		Supply and erection of new security fencing material				
2.3.1		Supply and Install a new 2.4m Clear Galvanised Steel Mesh Fence	m	415		
2.3.2		600mm Deep by 200mm wide concrete (Class 15/20) strip below fence into ground	m³	50		
2.3.3	PSVB 8.2	Supply and Install a 7m Motorised Galvanised Steel Mesh Sliding Gate	No.	1		
2.0.0	1 0 4 5 0.2	to suit 2.4m Galvanised Steel Mesh Fence	110.			
		TOTAL FOR OFFICIAL (C				
		TOTAL FOR SECTION 2 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 3: ROADS & STORMWATER

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 3: ROADS AND STORMWATER				
3.1	SANS 1200DB	PIPE TRENCHES				
	PSD 8.3.2	Excavate in all materials for trenches, backfill and compact, including disposal of surplus unsuitable material for pipes and cable ducts over 300 mm up to 600 mm diameter for depths.				
3.1.1		(a) 0.0 m - 2.0 m	m	35		
3.1.2		(b) 2.0 m - 4.0 m	m	5		
3.1.3		Extra over items 3.1.1 to 3.1.2 for additional excavations required by the Employer's Agent after excavation has been completed	m³	8		
	PSD 8.3.2(b)	Extra over items 3.1.1 to 3.1.2 for				
3.1.4		(1) Intermediate excavation	m^3	5		
3.1.5		(2) Hard rock excavation	m^3	5		
3.1.6	8.3.2 (c)	Excavate and dispose of unsuitable material from trench bottom (provisional)	m^3	40		
	8.3.3	Excavation Ancilliaries				
		Make up deficiency in backfill material (provisional)				
3.1.7		(c) by importation from commercial sources (G7)	m^3	860		
3.1.8	8.3.3.4	Overhaul	m³.km	200		
3.1.9	8.3.4	Particular Items				
3.1.10		a) Shore trench opposite structure or service (Provisional)	m	35		
	PSDB 8.3.5	Existing Services that Intersect or Adjoin a Pipe Trench				
3.1.11		(a) Services that intersect with the trench	No.	10		
3.1.12		(b) Services that adjoin a trench	m	50		
	8.3.6	Finishing				
3.1.13	8.3.6.1	Reinstate road sidewalk complete with all courses at pipe crossings as per existing layerworks and surface treatment	m²	50		
3.2	SANS 1200DM	ACCESS ROAD				
	8.3.3	Treatment of road-bed				
	8.3.3.3 (a)	Road Bed Preparatioin and Compaction of Materal to:				
3.2.1		Rip and recompact in-situ material to 150mm depth, moisten and compact to minimum of 93% Mod. AASHTO density.	m^3	45		
3.2.2		Tie into existing road	Sum	1		
3.3	SANS 1200G	CONCRETE ROAD				
	8.2	Formwork				
3.3.1	8.2.1	Rough Formwork along sides of concrete road slabs	m	90		
	8.3	Reinforcement				
3.3.2	8.3.1	High tensile steel bars	t	0.5		
3.3.3	8.3.1	Mild steel bars	t	0.2		
	8.3.2	High Tensile Welded Mesh				
3.3.4		Ref. 888 for road slabs	m ²	500		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 3: ROADS & STORMWATER

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forwar	d			
	8.4	Concrete				
3.3.5	8.4.3	Strength Concrete of Class 20/19 utilised for: (a) Road Surface Slab	m³	100		
	8.4.4	Unformed Surface Finishes				
3.3.6		(a) Wood-Floated Finish for road slab	m^2	500		
3.4	PSG 8.5	JOINTS				
	PSG 8.5.2	Filled Joints				
		Joint filler consisting of closed cell expanded polyethylene with density not less than 120kg/m3 including bullnose finish to both sides of joint and tear off strip				
3.4.1		20 mm wide between 200mm concrete members	m	240		
	PSG 8.5.3	Sealed Joints				
		Joint sealer (20 x 15 mm) consisting of a two component polyether based polyurethane sealing compound on visible face of joint including primer and bond breaker				
3.4.2	(a)	20 mm x 15 mm joints between concrete members	m	240		
3.4.3		Saw-cut Joints	m	240		
3.5	SANS 1200LB	PIPE BEDDING				
	8.2.2	Supply only of Bedding by Importation				
	8.2.2.3	From commercial sources				
3.5.1	(a)	Selected granular material (G7) compacted to 95% MOD AASHTO	m ³	9		
3.5.2	(b)	Selected fill blanket	m ³	14		
3.5.3	8.2.4	Encasing of 450 mm pipe in 15 MPa concrete	m ³	33		
3.6	SANS 1200LE	STORMWATER DRAINAGE				
	8.2.1	Supply, handle, lay, bed Class B concrete pipes with interlocking joints				
3.6.1		450 mm diameter Class 100D	m	35		
3.6.2		Ancilliary Stormwater Infrastructure	Prov. Sum	1		
3.7	SANS 1200ME	SUBBASE				
	8.3.3	Construct the subbase course/ shoulder with material from commercial sources or designated borrow pits.				
3.7.1		G7 material compacted in 150mm layer to 93% of modified AASHTO maximum density.	m ³	45		
3.7.2		Construct 150mm layer of G5 base compacted to 93% of MOD AASHTO from commercial sources	m ³	45		
3.8	SANS 1200MF	STABILISATION				
3.8.1	8.3.5	Process base material by Stabilisation	m ³	45		
	8.3.8	Stabilising Agent:				
3.8.2	8.3.8 (b)	Portland Cement	t	9		
3.9	SANS 1200MK	KERBING & CHANNELLING				
	8.2.1	Concrete kerbing (Class 20/20 Concrete)				
3.9.1		Edge beam (150mm x 150mm)	m³	1		
		SUB-TOTAL CARRIED FORWARD	•			

Employer:	Contractor:	
Witness:	Witness:	







SECTION 3: ROADS & STORMWATER

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
		brought forward					
3.9.2		300 x 150mm Barrier kerb (Straight) Fig 3	m	125			
3.9.3		Allowance for 80mm thick interlocking paving blocks	Prov. Sum	1	R 950 000.00	R 950 000.00	
3.10 3.10.1	SANS 1200MM	ANCILLIARY ROADWORKS Allowance for signage, barriers and markings	Prov. Sum	1	R 100 000.00	R 100 000.00	
3.10.2		Tie into road stormwater network	Prov. Sum	1	R 250 000.00	R 250 000.00	
		PROVISION FOR PAVING					
3.11	SANS 1200ME	SUBBASE					
3.11.1		Rip and recompact in-situ material to 150mm depth, moisten and compact to minimum of 93% Mod. AASHTO density.	m ³	800			
3.11.2	8.3.3	Construct the subbase course/ shoulder with material from commercial sources or designated borrow pits.	m ³	800			
3.11.3		Construct 150mm layer of G5 base compacted to 93% of MOD AASHTO from commercial sources	m ³	800			
3.11.4		150 mm C4 compacted to 95% MOD. AASHTO.	m ³	800			
3.11.5	8.3.8 (b)	Stabilizing agent: Portland cement (3%)	t	30			
	TOTAL FOR SECTION 3 (Carried to Summary)						

Employer:	Ĭ.	Contractor:	
Witness:		Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 4: RESERVOIR				
4.1	SANS 1200D	EARTHWORKS				
	8.3.3	RESTRICTED EXCAVATION				
	PSD 8.3.3(a)	Excavate for restricted foundations, footings and pipe trenches in all materials and use as described for items 4.1.1 to 4.1.3				
4.1.1		0 to 2m deep	m³	900		
4.1.2		2m to 4m deep	m³	300		
	PSD 8.3.3 (b)	Extra over items 4.1.1 to 4.1.2 for				
4.1.3	1)	Intermediate excavation	m³	450		
4.1.4	2)	Hard rock excavation	m³	450		
4.1.5		Extra over items 4.1.1 to 4.1.4 for additional excavations required by the Engineer after excavation has been completed	m³	180		
4.1.6	8.3.6	Overhaul	m³.km	11250		
4.2	SANS 1200L	PIPEWORK				
	PSL 8.2.5	PIPE SPECIALS				
4.2.1		Supply, testing and installation of pipework, fittings and specials brought forward from the Pipe Schedule (building in of pipes measured elsewhere)	Sum	1		
4.3	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes supplied and installed by the Contractor (Irrespective of type)				
4.3.1		150 mm diameter	No.	1		
4.3.2		500 mm diameter	No.	1		
4.3.3		600 mm diameter	No.	1		
4.4	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
4.4.1		Drainage trench walls	m²	55		
4.4.2		Edges of butresses	m²	140		
		Curved Cylindrical				
4.4.3		Vertical sides of reservoir wall footing (outer radius 30175 mm)	m²	90		
4.4.4		Vertical sides of reservoir wall footing (inner radius 28125 mm)	m²	80		
4.4.5		Wall of reservoir (outer radius 29450 mm)	m²	290		
4.4.6		Wall of reservoir (inner radius 29000 mm)	m²	260		
4.4.7		Ring beam (outer radius 29800 mm)	m²	255		
4.4.8		Ring beam (inner radius 29000 mm)	m²	150		
4.4.9		Roof Vent	m²	12.5		
	8.2.5	Narrow width (up to 300mm wide)				
4.4.10		Sides of drainage trench floor (250mm high)	m	41		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
4.4.11		Edge of apron around reservoir	m	195		
		Curved Spherical				
4.4.12		Internal soffit of reservoir roof	m²	3 060		
	8.2.6	Box Out Holes/Form Voids				
4.4.13	8.2.6(d)	Rectangular openings for access hatch A (1000 x 1500 mm) as shown in drawing: 13214-73-04-001	No.	2		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
4.4.14		25 mm along ringbeam	m	370		
4.4.15		25mm roof ventilator	m	7.6		
4.4.16		60x60 Plastic fillet along prestressed reservoir wall as per drawing 13214-73-04-001	m	185		
	8.3	Reinforcement				
4.4.17	8.3.1	High tensile steel bars	t	189		
4.4.18	8.3.1	Mild steel bars	t	22		
	8.4	Concrete				
	PSG 8.4.3	Strength of Concrete: 15/19				
4.4.19	8.4.2	Blinding layer 75mm thick in reservoir floor and footing (horizontal)	m²	3010		
4.4.20		Blinding layer 50mm thick underneath drainage trench as per drawing 13214-73-04-001	m²	30		
		STRENGTH CONCRETE NF 20				
4.4.21		No fines concrete layer 100mm thick (horizontal) in reservoir floor	m²	2645		
4.4.22		300 x 300 mm No fines concrete around 110 diameter slotted PVC pipe as per drawing 13214-73-04-002	m³	40		
4.4.23		No fines concrete around 75 diameter perforated PVC pipe within the leak detection system as per drawing 13214-73-04-002	m³	30		
4.4.24		Mass concrete as ordered by the engineer	m³	100		
	PSG 8.4.3	Strength of Concrete: 25/19				
4.4.25		Apron Slab	m³	140		
	PSG 8.4.3	Strength of Concrete: 35/19				
4.4.26		Wall Footings	m³	145		
4.4.27		Floors	m³	530		
4.4.28		Walls (including 350 x 2000 Buttresses)	m³	760		
4.4.29		Ring beam	m³	255		
4.4.30		Roof (including base of ventilation structure)	m³	845		
4.4.31		Drainage trench floor	m³	15		
4.4.32		Drainage trench walls	m³	10		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
4.4.33		Drainage trench (floor and top of walls)	m²	45		
4.4.34		Domed roof	m²	3060		
		CUD TOTAL CARDUED FORWARD				
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
	8.4.4 (b)	Steel Floated Finish				
4.4.35		Floor inside reservoir	m²	2670		
	PSG 8.10	Sealing of openings in top surface of NF-concrete layer with plaster				
4.4.36		horizontal	m²	2670		
4.5	PSG 8.5	JOINTS				
		Filled Joints (Including Formwork)				
		Joint Filler Consisting of Closed Cell Expanded Polyethylene with Density not Less than 100 kg/m³ Including Bullnose Finish to Both Sides of Joint.				
4.5.1		20 mm wide between 100 mm concrete members	m	190		
4.5.2		20 mm wide between 150 mm concrete members	m	190		
4.5.3		20 mm wide between 200 mm concrete members	m	645		
	PSG 8.5.3	Sealed Joints				
		Joint Sealer (20 X 15 mm) Consisting of a two Component Polyether Based Polyurethane Sealing Compound on Visible Face of Joint Including Primer and Backing Cord or Bond Breaker				
4.5.4		20 mm joints between concrete wall and floor interface as per drawings 13214-73-04-001	m	735		
4.5.5		20 mm wide sealed expansion joint along perimeter of drainage trench as per drawing 13214-73-04-001	m	55		
4.5.6		20 mm expansion joint along reservoir floor	m	450		
	PSG 8.5.4	Waterstops				
4.5.7	(a)	200 mm wide Rearguard with centerbulb PVC waterstop at floor joints	m	450		
4.5.8	(b)	250 mm Rearguard with centerbulb PVC waterstop at wall and floor joint (29m radius)	m	183		
4.5.9	(c)	Extra-over items (a) and (b) above for factory moulded intersection pieces	No.	30		
	PSG 8.5.5	Bandaged Joints				
4.5.10	(a)	200mm wide X 2mm thick epoxy-fixed bandage along floor expansion joints	m	450		
4.5.11	(b)	250mm wide x 2mm thick flexible epoxy-fixed bandage along horisontal wall construction joints	m	1095		
4.5.12	(c)	300mm wide X 2mm thick flexible epoxy-fixed bandage along wall and floor expansion joints (90 degree angle) incl. 60x60 corner fillet	m	183		
		Sundry Items				
4.6		PLASTIC SHEETING				
4.6.1	PSLE 8.2.18	250 micron PVC sheeting underneath floor slab	m²	2610		
4.6.2		200 micron PVC sheeting adjacent to scour pipe as per drawing 13214-73-04-003: Scour Pipe Detail	m²	1872		
4.7		BEARING STRIPS				
4.7.1		Supply and install 200 kN/m strip bearing at reservoir footing as per drawing 13214-73-04-001: Prestressed Wall/Footing Detail	m	185		
4.7.2		Supply and install 95 kN/m strip bearing on top of reservoir wall as per drawing 13214-73-04-001: Ringbeam Detail	m	185		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
4.8	PSG 8.10	WATERPROOFING				
4.8.1		Impermeable ductile slurry coating on all internal tank wall and floor surfaces. Including the top external surface of the tank roof.	m²	11000		
4.9	PSG 8.13	TESTING STRUCTURE FOR WATERTIGHTNESS				
4.9.1		Reservoir	No.	1		
4.10	SANS 1200HA	STRUCTURAL STEELWORK				
		Ladder				
4.10.1		Heavy Duty Hot Dipped Galvanised SABS 763 - as per drawing 13214-	No.	2		
4.10.2		73-04-002: Typical Cat Ladder Detail Stainless Steel Grade 304 Access ladder including cage as per drawing 13214-73-04-002: Typical Cat Ladder Detail	No.	1		
4.10.3		Stainless Steel Grade 304 grating to fit in a stainless steel frame to be placed over outlet and scour pipes as per drawing 13214-73-04-003	No.	2		
4.10.4		Stainless Steel Grade 304 energy dissipating plate 4.5mm thick bolted to Reservoir wall with a neoprene rubber inbetween installed below inlet pipe as per drawing 13214-73-04-003	No.	1		
		GRP Products				
4.10.5		GRP handrail assembly complete	m	200		
		Access Hatch				
4.10.6		Lockable access hatch (1000mm x 1500mm) as per drawing 13214-73- 04-002: Plan on Access Hatch	No.	2		
4.11	SANS 1200L	MEDIUM PRESSURE PIPELINES				
	8.2.2	Specials and Fittings				
		Extra over for the supply & installation of fittings and specials as shown in drawing 13214-73-04-002: Typical Cross & T Connection				
4.11.1		(a) 110 diameter PVC cross	No.	10		
4.11.2		(b) 110 diameter PVC tee	No.	8		
		Mild Steel Pipes				
4.11.3		50 mm Galvanised MS outlet pipes	No.	31		
4.12	PSG 8.11	RESERVOIR STERILIZATION				
4.12.1		Sterilization of the reservoir	Sum	1		
4.13 4.13.1	PSU 8.14	ROOF VENTILATOR Supply and install Roof ventilator as per the detail on drawing 13214-73-04-001: Roof Ventilator Detail	Sum	1		
		TOTAL FOR SECTION 4 (Carried to Summary)				
		TOTAL FOR SECTION 4 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 5: CHAMBERS AND BOXES				
5.1		SCOUR CHAMBER				
5.1.1	SANS 1200D	EARTHWORKS				
	PSD 8.3.3	Restricted Excavation				
	PSD 8.3.3(a)	Excavate for Restricted Foundations, Footings and Pipe Trenches in all materials and use as described for Items				
5.1.1.1		0 to 2m deep	m³	110		
5.1.1.2		2m to 4m deep	m³	95		
	PSD 8.3.3 (b)	Extra over items 5.1.1 to 5.1.2 for				
5.1.1.3	1)	Intermediate excavation	m³	98		
5.1.1.4	2)	Hard rock material	m³	42		
5.1.1.5		Extra over items 5.1.1.3 to 5.1.1.4 for additional excavations required by the Engineer after excavation has been completed	m³	50		
5.1.1.6	8.3.6	Overhaul	m³.km	50		
5.1.2	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
5.1.2.1		Scour chamber walls (internal and external)	m²	160		
5.1.2.2		Scour chamber floors	m²	25		
5.1.2.3		Sides of valve supports	m²	1.5		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
5.1.2.4		25 x 25 mm along scourbox cover	m	15		
5.1.2.5		25 x 25 mm along walls of scourbox	m	20		
	PSG 8.3	Reinforcement				
5.1.2.6	8.3.1	High tensile steel bars	t	5		
5.1.2.7	8.3.1	Mild steel bars	t	2		
5.1.2.8	8.4	Strength of Concrete: 15/19				
5.1.2.9		Benching to floors of boxes	m²	16		
	8.4.3	Strength of Concrete: 15/19				
5.1.2.10		Mass Concrete	m³	3		
5.1.2.11	8.4.2	Blinding layer 50mm thick	m²	25		
	8.4.3	Strength of Concrete: 35/19				
5.1.2.12		Floors	m³	8		
5.1.2.13		Walls	m³	33		
5.1.2.14		Pipe supports	m³	1.5		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
5.1.2.15		Top surface of box walls	m²	5		
	8.4.4 (b)	Steel Floated Finish				
5.1.2.16		Benching in boxes SUB-TOTAL CARRIED FORWARD	m²	20		

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
		Sundry Items				
5.1.3		PRE-CAST CONCRETE				
5.1.3.1		Precast concrete roof slab sections (1280mm x 2000mm x 300mm) (including lockable access hatch and holding brackets) as per drawing 13214-73-04-011: Scourbox Layout	No.	1		
5.1.3.2		Precast concrete roof slab sections (1280mm x 2000mm x 300mm) as per drawing 13214-73-04-011: Scourbox Layout	No.	1		
5.1.4	SANS 1200HA	STRUCTURAL STEELWORK				
5.1.4.1		Galvanised steel cat ladder fixed with M16 chemical anchors	No.	1		
5.1.4.2	PSHA 5.2.13	50 mm Galvanised open floor grating	m²	10		
5.1.4.3		50x50x5L with 150x25x3 lugs as per drawing 13214-73-04-011: Galvanised Open Grid Flooring	No	2		
		Access Hatch				
5.1.4.4		Lockable access hatch (1535mm x 1535mm) as per drawing13214-73-04-002: Plan on Access Hatch	No.	2		
5.1.5	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)				
5.1.5.1		110mm	No.	3		
5.1.5.2		150mm	No.	4		
5.1.5.3		350mm	No.	2		
5.1.5.4		600mm	No.	1		
5.1.6	SANS 1200L	PIPEWORK				
	PSL 8.2.5	PIPE SPECIALS				
5.1.6.1	8.2.5	Supplying, testing and installation of pipes, fittings and specials brought forward from the Scour Chamber Pipe Schedule	Sum	1		
5.2		INLET FLOWMETER CHAMBER				
5.2.1	SANS 1200D	EARTHWORKS				
	8.3.3	Restricted Excavation				
	8.3.3(a) (i)	Excavate for Restricted Foundations, Footings and Pipe Trenches in all materials and use as described for Items				
5.2.1.1		0 to 2m deep	m³	29		
5.2.1.2		2m to 4m deep	m³	19		
5.2.1.3		(b) Intermediate excavation	m³	51		
5.2.1.4		(c) Hard rock material	m³	21		
5.2.1.5		Extra over items 5.2.1.3 to 5.2.1.4 for additional excavations required by the Engineer after excavation has been completed	m³	35		
5.2.1.6	8.3.6	Overhaul	m³.km	50		
5.2.2	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
5.2.2.1		Internal & external sides of inlet flowmeter chamber walls	m²	86		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
5.2.2.2		Sides of valve supports	m²	1		
		Plane Horizontal				
	PSG 8.2.6	Box Out Holes/Form Voids				
	PSG 8.2.6(a)	Circular holes for pipes				
5.2.2.3		500mm	No.	2		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
5.2.2.4		25 x 25 mm along flow meter chamber concrete cover	m	35		
	8.3	Reinforcement				
5.2.2.5	8.3.1	High tensile steel bars	t	2		
5.2.2.6	8.3.1	Mild steel reinforcement	t	0.7		
	8.3.2	High Tensile Welded Mesh				
5.2.2.7		Ref. 245 for flow meter chamber cover	m ²	5		
	8.4	Concrete				
	8.4.3	Strength of Concrete: 15/19				
5.2.2.8		Benching to floors of boxes	m²	8		
	8.4.3	Strength of Concrete: 15/19				
5.2.2.9	8.4.2	Blinding layer 50mm thick	m²	15		
	8.4.3	Strength of Concrete: 35/19				
5.2.2.10		Floors	m³	5		
5.2.2.11		Walls	m³	14		
5.2.2.12		Pipe supports	m³	0.05		
5.2.2.13		500x500x300 deep sump	m³	5		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
5.2.2.14		Top surface of box walls	m²	5		
	8.4.4 (b)	Steel Floated Finish				
5.2.2.15		Benching in boxes	m²	8		
		Sundry Items				
5.2.3		PRE-CAST CONCRETE				
5.2.3.1		Precast concrete roof slab sections (including lockable access hatch and holding brackets) as per drawing 13214-73-04-005	No.	1		
5.2.4	SANS 1200HA	STRUCTURAL STEELWORK				
5.2.4.1		Galvanised steel ladder fixed with M16 chemical anchors	No.	1		
5.2.5	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)				
5.2.5.1		500 mm diameter	No.	2		
		SUB-TOTAL CARRIED FORWARD		I		

Employer:	Contractor:	
Witness:	Witness:	







SANS 1700. PREVIOR PRESECTALS Supplies Section Supplies Sect	ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PSI 8.25 PPE SPECIALS Supplying, batting and installation of piose, fillings, and species brought Sum 1			brought forward				
Supplied Supplied	5.2.6	SANS 1200L	PIPEWORK				
		PSL 8.2.5	PIPE SPECIALS				
S.3.1 SANS 12000 EARTHWORKS	5.2.6.1			Sum	1		
8.3.3 Restricted Excavation Excavation	5.3		OUTLET FLOWMETER CHAMBER				
8.3 Solid	5.3.1	SANS 1200D	EARTHWORKS				
in all materials and use as described for Items (a) Soft excession (b) Intermediate excession (c) Value rock material (c) Value rock rock rock rock rock rock rock rock		8.3.3	Restricted Excavation				
5.3.12 Colorate		8.3.3(a) (i)					
Col Hard rock material Extra over items 5.3.1.1 to 5.3.1.3 for additional excavations required by the Engineer after excevation has been completed m² 35	5.3.1.1		(a) Soft excavation	m³	25		
Extra over items \$.3.1.1 to \$.3.1.3 for additional excavations required by the Engineer after excavation has been completed m² 35	5.3.1.2		(b) Intermediate excavation	m³	12		
5.3.1.5 6.3.6 Overhaud Ov	5.3.1.3		(c) Hard rock material	m³	9		
SANS 12006 SANS 12006 CONCRETE (STRUCTURAL)	5.3.1.4			m³	35		
8.2 Formwork	5.3.1.5	8.3.6	Overhaul	m³.km	100		
S.2.2 Smooth Formwork Plane Vertical Internal & external sides of inlet chamber walls m² 95	5.3.2	SANS 1200G	CONCRETE (STRUCTURAL)				
Plane Vertical Internal & external sides of inlet chamber walls m² 95		8.2	Formwork				
Internal & external sides of inlet chamber walls m² 95		8.2.2	Smooth Formwork				
Sides of valve supports			Plane Vertical				
PSG 8.2.7 Chamfers larger than 20mm x 20mm 25 x 25 mm along flow meter chamber concrete cover m 35	5.3.2.1		Internal & external sides of inlet chamber walls	m²	95		
25 x 25 mm along flow meter chamber concrete cover	5.3.2.2		Sides of valve supports	m²	1		
8.3 Reinforcement 5.3.2.4 8.3.1 High tensile steel bars 5.3.2.5 8.3.1 Mild steel bars 8.3.2 High Tensile Welded Mesh 5.3.2.6 Ref. 245 for flow meter chamber cover 8.4.3 Strength of Concrete: 15/10 5.3.2.7 Benching to floors of boxes 8.4.3 Strength of Concrete: 15/19 5.3.2.8 8.4.2 Blinding layer 50mm thick 8.4.3 Strength of Concrete: 35/19 5.3.2.9 Floors 5.3.2.10 Walls 7.3.2.10 Walls 8.4.4 Unformed Surface Finishes 8.4.4 Unformed Surface Finishes 8.4.4 Unformed Surface Finishes 8.4.4 Unformed Surface Finishes		PSG 8.2.7	Chamfers larger than 20mm x 20mm				
5.3.2.4 8.3.1 High tensile steel bars t 2.21 5.3.2.5 8.3.1 Mild steel bars t 0.88 8.3.2 High Tensile Welded Mesh m² 5 5.3.2.6 Ref. 245 for flow meter chamber cover m² 5 8.4 Concrete m² 5 8.4.3 Strength of Concrete: 15/19 m² 8 8.4.3 Strength of Concrete: 15/19 m² 15 8.4.3 Strength of Concrete: 35/19 m² 15 5.3.2.9 Floors m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes m³ 5 8.4.4 (a) Wood Floated Finish m³ 5	5.3.2.3		25 x 25 mm along flow meter chamber concrete cover	m	35		
5.3.2.5 8.3.1 Mild steel bars t 0.88 8.3.2 High Tensile Welded Mesh m² 5 5.3.2.6 Ref. 245 for flow meter chamber cover m² 5 8.4 Concrete Concrete Concrete 8.4.3 Strength of Concrete: 15/19 m² 8 5.3.2.8 8.4.2 Blinding laver 50mm thick m² 15 8.4.3 Strength of Concrete: 35/19 m³ 5 5.3.2.9 Floors m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes Wood Floated Finish		8.3	Reinforcement				
8.3.2 High Tensile Welded Mesh Ref. 245 for flow meter chamber cover m² 5	5.3.2.4	8.3.1	High tensile steel bars	t	2.21		
5.3.2.6 Ref. 245 for flow meter chamber cover m² 5 8.4 Concrete 8.4.3 Strength of Concrete: 15/10 5.3.2.7 Benching to floors of boxes m² 8 8.4.3 Strength of Concrete: 15/19 m² 15 5.3.2.8 8.4.2 Blinding layer 50mm thick m² 15 8.4.3 Strength of Concrete: 35/19 m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes m³ 5 8.4.4 (a) Wood Floated Finish m³ 5	5.3.2.5	8.3.1	Mild steel bars	t	0.88		
8.4 Concrete		8.3.2	High Tensile Welded Mesh				
8.4.3 Strength of Concrete: 15/10 Benching to floors of boxes m² 8	5.3.2.6		Ref. 245 for flow meter chamber cover	m^2	5		
5.3.2.7 Benching to floors of boxes m² 8 8.4.3 Strength of Concrete: 15/19 m² 15 5.3.2.8 8.4.2 Blinding layer 50mm thick m² 15 8.4.3 Strength of Concrete: 35/19 m³ 5 5.3.2.9 Floors m³ 15 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes m³ 5 8.4.4 (a) Wood Floated Finish m³ 5		8.4	Concrete				
8.4.3 Strength of Concrete: 15/19 5.3.2.8 8.4.2 Blinding layer 50mm thick m² 15 8.4.3 Strength of Concrete: 35/19 5.3.2.9 Floors m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish		8.4.3	Strength of Concrete: 15/10				
5.3.2.8 8.4.2 Blinding layer 50mm thick m² 15 8.4.3 Strength of Concrete: 35/19 m³ 5 5.3.2.9 Floors m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes Wood Floated Finish	5.3.2.7		Benching to floors of boxes	m²	8		
8.4.3 Strength of Concrete: 35/19 5.3.2.10 Floors m³ 5 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish		8.4.3	Strength of Concrete: 15/19				
5.3.2.9 Floors m³ 5 5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish	5.3.2.8	8.4.2	Blinding layer 50mm thick	m²	15		
5.3.2.10 Walls m³ 15 5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish		8.4.3	Strength of Concrete: 35/19				
5.3.2.11 Pipe supports m³ 0.05 5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish	5.3.2.9		Floors	m³	5		
5.3.2.12 500x500x300 deep sump m³ 5 8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish	5.3.2.10		Walls	m³	15		
8.4.4 Unformed Surface Finishes 8.4.4 (a) Wood Floated Finish	5.3.2.11		Pipe supports	m³	0.05		
8.4.4 (a) Wood Floated Finish	5.3.2.12		500x500x300 deep sump	m³	5		
		8.4.4	Unformed Surface Finishes				
SUB-TOTAL CARRIED FORWARD		8.4.4 (a)	Wood Floated Finish				
· · · · · · · · · · · · · · · · · · ·			SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
5.3.2.13		Top surface of box walls	m²	5		
	8.4.4 (b)	Steel Floated Finish				
5.3.2.14		Benching in boxes	m²	8		
		Sundry Items				
5.3.3		PRE-CAST CONCRETE				
5.3.3.1		Precast concrete roof slab sections (including lockable access hatch and holding brackets) as per drawing 13214-73-04-005	No.	1		
5.3.4	SANS 1200HA	STRUCTURAL STEELWORK				
5.3.4.1		Galvanised steel ladder fixed with M16 chemical anchors	No.	1		
5.3.5	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)				
5.3.5.1		600 mm diameter	No.	2		
5.3.6	SANS 1200L	PIPEWORK				
	PSL 8.2.5	PIPE SPECIALS				
5.3.6.1		Supplying, testing and installation of pipes, fittings and specials brought forward from the Inlet Flow Meter Chamber Pipe Schedule	Sum	1		
5.4		DRAINAGE BOXES				
5.4.1	SANS 1200D	EARTHWORKS				
	8.3.3	Restricted Excavation				
	8.3.3(a) (i)	Excavate for Restricted Foundations, Footings and Pipe Trenches in all materials and use as described for Items				
5.4.1.1		(i)(a) 0 m up to 2 m	m³	86		
	8.3.2(b)	Extra Over Items for Excavations in:				
5.4.1.2		(a) Intermediate excavation	m³	30		
5.4.1.3		(b) Hard rock material	m³	27		
5.4.1.4		Extra over items 5.4.1.2 to 5.4.1.3 for additional excavations required by the Engineer after excavation has been completed	m³	35		
5.4.2	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
5.4.2.1		Internal & external sides of drainage chamber walls	m²	360		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
5.4.2.2		25 x 25 mm along wall edge of drainage boxes	m	135		
	8.3	Reinforcement				
5.4.2.3	8.3.1	High tensile steel bars	t	20		
5.4.2.4	8.3.1	Mild steel bars	t	6		
	8.4	Concrete				
	8.4.3	Strength of Concrete: 15/10	_			
5.4.2.5		Benching to floors of boxes	m²	24		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
	8.4.3	Strength of Concrete: 15/19				
5.4.2.6	8.4.2	Blinding layer 50mm thick	m²	40		
	8.4.3	Strength of Concrete: 35/19				
5.4.2.7		Floors	m³	8		
5.4.2.8		Walls	m³	32		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
5.4.2.9		Top surface of box walls	m²	16		
	8.4.4 (b)	Steel Floated Finish				
5.4.2.10		Benching in boxes	m²	24		
		Sundry Items				
5.4.3	SANS 1200HA	STRUCTURAL STEELWORK				
5.4.3.1		Grade 304 Stainless Steel 900mm x 900mm frame to be cast into concrete walls of boxes	No.	12		
5.4.4		GRP Products				
5.4.4.1		GRP grating to fit inside item 5.4.3.1	No.	12		
5.4.4	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)				
5.4.4.1		50 mm diameter	No.	48		
5.4.4.2		110 mm diameter	No.	24		
5.5		VALVE CHAMBERS				
5.5.1	SANS 1200D	EARTHWORKS				
	8.3.3	Restricted Excavation				
	8.3.3(a) (i)	Excavate for Restricted Foundations, Footings and Pipe Trenches in all materials and use as described for Items				
5.5.1.1		(a) Soft excavation	m³	22		
5.5.1.2		(b) Intermediate excavation	m³	37		
5.5.1.3		(c) Hard rock material	m³	15		
5.5.1.4		Extra over items 5.3.1.1 to 5.3.1.3 for additional excavations required by the Engineer after excavation has been completed	m³	70		
5.5.1.5	8.3.6	Overhaul	m³.km	200		
5.5.2	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
5.5.2.1		Internal & external sides of inlet chamber walls	m²	190		
5.5.2.2		Sides of valve supports	m²	2		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
5.5.2.3		25 x 25 mm along valve chamber concrete cover	m	65		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







5.5.2.4	8.3	brought forward				
5.5.2.4	8.3					
5.5.2.4		Reinforcement				
	8.3.1	High tensile steel bars	t	4.41		
5.5.2.5	8.3.1	Mild steel bars	t	1.76		
	8.3.2	High Tensile Welded Mesh				
5.5.2.6		Ref. 245 for flow meter chamber cover	m^2	10		
	8.4	Concrete				
	8.4.3	Strength of Concrete: 15/10				
5.5.2.7		Benching to floors of boxes	m²	16		
	8.4.3	Strength of Concrete: 15/19				
5.5.2.8	8.4.2	Blinding layer 50mm thick	m²	30		
	8.4.3	Strength of Concrete: 35/19				
5.5.2.9		Floors	m³	10		
5.5.2.10		Walls	m³	30		
5.5.2.11		Pipe supports	m³	0.1		
5.5.2.12		500x500x300 deep sump	m³	5		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
5.5.2.13		Top surface of box walls	m²	10		
	8.4.4 (b)	Steel Floated Finish				
5.5.2.14		Benching in boxes	m²	16		
		Sundry Items				
5.5.3		PRE-CAST CONCRETE				
5.5.3.1		Precast concrete roof slab sections (including lockable access hatch and holding brackets) as per drawing 13214-73-04-005	No.	2		
5.5.4	SANS 1200HA	STRUCTURAL STEELWORK				
5.5.4.1		Galvanised steel ladder fixed with M16 chemical anchors	No.	2		
5.5.5	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)				
5.5.5.1		500 mm diameter	No.	2		
5.5.5.2		600 mm diameter	No.	2		
5.5.6	SANS 1200L	PIPEWORK				
	PSL 8.2.5	PIPE SPECIALS				
5.5.6.1		Supplying, testing and installation of pipes, fittings and specials brought forward from the Inlet Flow Meter Chamber Pipe Schedule	Sum	1		
		TOTAL FOR SECTION 5 (Carried to Summary)			<u> </u>	

Employer:	Contractor:	
Witness:	Witness:	





SECTION 6: INTERCONNECTING PIPEWORK

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 6: INTERCONNECTING PIPEWORK				
6.1	SANS 1200DB	PIPE TRENCHES				
		Excavation				
	8.3.2	Excavate in all materials For Trenches, Backfill and Compact, including Disposal of Surplus Unsuitable Maternal for Pipes				
		Up to 300 mm Diameter for depths				
6.1.1		0.0 m - 1.0 m	m	47.5		
6.1.2		1.0 m - 2.0 m	m	84.5		
6.1.3		2.0 m - 3.0 m	m	178		
		Over 300mm up tp 600 mm diameter for depths				
6.1.4		0.0 m - 1.0 m	m	150		
6.1.5		1.0 m - 2.0 m	m	150		
6.1.6		2.0 m - 3.0 m	m	88		
6.1.7		3.0 m - 4.0 m	m	10		
	8.3.2 (b)	Extra Over items 6.1.1 to 6.1.7 for excavations				
6.1.8	8.3.2 (I)	Intermediate material	m ³	366		
6.1.9	8.3.2 (ii)	Hard rock material	m ³	237.5		
	8.3.3	Excavation Ancillaries				
6.1.10	8.3.3.3	Compaction in road reserve (provisional)	m³	10		
6.1.11	8.3.3.4	Overhaul	m³.km	50		
	PSDB 8.3.5	Existing Services that Intersect or Adjoin of a Pipe Trench				
6.1.12		(a) Services that intersect with the trench	No.	10		
6.1.13		(b) Services that adjoin a trench	m	50		
	8.3.6	Finishing				
6.1.14	8.3.6.1	(a) Reinstate road surface complete with all courses at pipe crossings	m²	50		
6.1.15	8.3.7	Accommodation of Traffic	Sum	1		
6.2	SANS 1200L	MEDIUM PRESSURE PIPEWORK				
	8.2.1	Interconnecting Pipework				
		Supply, lay, join and test pipework on granular bedding				
6.2.1		50 mm diameter PVC drainage pipe in concrete	m	75		
6.2.2		50 mm diameter PE100PN10 HDPE pipe	m	50		
6.2.3		75 mm diameter PVC perforated drainage in no fines concrete	m	310		
6.2.4	PSLE 8.	110 mm diameter PVC perforated drainage pipe in no fines concrete	m	340		
	PSL 8.2.5	Pipe Specials				
6.2.5		Supply, testing and installation of pipework, fittings and specials brought forward from the Pipe Schedule for the Inlet Pipe (building in of pipes measured elsewhere)	Sum	1		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 6: INTERCONNECTING PIPEWORK

Supply, besting and installation of pipework, fittings and specials brought increased from the Pipe Service for the Outer Pipe (building in of pipes increased securities)	ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
Concrete grade 15/20 in throat blocks (per Employer's Agent's instruction) m¹ 10 8.2.8 Rough shuttering at throat blocks (per Employer's Agent's instruction) m² 50 8.3. SANS 1200LB BEDDING 8.2.2.1 within freshald distance 8.3.1 (a) Selected granular material from trench or other excavations within freshald distance 8.2.2.3 Provision of bedding material by importation from commercial sources. 8.3.3 (b) Selected granular material by importation from commercial sources. 8.3.3 (c) Selected granular material by importation from commercial sources. 8.3.4 (b) Selected fill blankst m² 120 8.2.4 Concrete at Pipes 8.2.4 Concrete at Pipes 8.2.6 Encesting of 150mm dia underfloor drainage pipes in concrete m² 80 8.3.6 Encesting of 150mm dia deviatione & secur pipes in concrete m² 4 8.6.3.7 Encesting of 500mm dia intel pipe in concrete m² 4 8.6.3.8 Encesting of 500mm dia intel pipe in concrete m² 10 8.2.6 SANS 1200LB PIPE LACKING 8.2.6 SANS 1200DB Excavation is all materials for backfill, compact and dispose of material m² 20 6.5.1 SANS 1200DB Excavation is all materials for backfill, compact and dispose of material m² 383 6.5.2 How over times 6, 5, 1 to 6, 3 for additional excavations required by the Employer's Agent after excavation has been completed m² 256 6.5.4 SANS 1200LB BEDDING 8.2.1 Provision of Eedding Material from Trench or Other Excavations 8.5.3 SANS 1200LB BEDDING	6.2.6		forward from the Pipe Schedule for the Oulet Pipe (building in of pipes	Sum	1				
Rough shuttlering at thrust blocks (per Employer's Agent's instruction) 8.2.2.1 whithin freshaul distance 8.2.2.1 whith		8.2.11	Thrust Blocks						
8.3 SANS 1200LB BEDDING 8.2.2.1 Provision of bedding material from trench or other excavations within freshald distance 6.3.1 (a) Selected granular material m² 56 6.3.2 (b) Selected fill believe m² 120 8.2.2.3 Solected granular material by importation from commercial solutions. 6.3.3 (a) Selected granular material m² 56 6.3.4 (b) Selected fill believe m² 120 8.2.4 Concrete at Pipes 6.3.5 Encasing of 150mm dia underfloor drainage pipes in concrete m² 60 8.2.4 Concrete at Pipes 6.3.5 Encasing of 150mm dia drainage & socur pipes in concrete m² 8 6.3.7 Encasing of 150mm dia drainage & socur pipes in concrete m² 14 6.3.8 Encasing of 500mm dia drainage & socur pipes in concrete m² 15 6.3.9 Encasing of 500mm dia oliet pipe in concrete m² 15 6.3.9 Encasing of 500mm dia oliet pipe in concrete m² 15 6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations for 500mm steel pipe 6.4.1 to 500mm steel pipe m 21 8.5 SEWERS 6.5 SANS 1200B Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material m² 6.39 PSD 8.3.3 (b) Extra-over items for excavating in intermediate neatrial m² 383 Hard rock material Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6. SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.2.7		Concrete grade 15/20 in thrust blocks (per Employer's Agent instruction)	m³	10				
8 2.2.1 Provision of bedding material from trench or other excavations within freshaud distance 6.3.1 (a) Selected granular material m³ 86 6.3.2 (b) Selected fill blanket m³ 120 8.2.2.3 sources. 6.3.3 (a) Selected granular material by importation from commercial sources. 6.3.4 (b) Selected granular material m³ 86 6.3.4 (c) Selected granular material m³ 120 8.2.4 Concrete at Pipes 6.3.5 Encasing of 100mm dia underfloor drainage pipes in concrete m³ 60 6.3.6 Encasing of 150mm dia drainage & scour pipes in concrete m³ 8 6.3.7 Encasing of 150mm dia interpipe in concrete m³ 4 6.3.8 Encasing of 500mm dia interpipe in concrete m³ 10 6.3.9 Encasing of 500mm dia interpipe in concrete m³ 15 6.3.9 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations for 500mm steel pipe m 20 6.4.1 for 500mm steel pipe m 21 6.4.2 for 500mm steel pipe m 21 6.5.1 or 500mm steel pipe 8.5.5 SANS 1200DB Excavation Excavation in Intermediate material of m-2m m³ 333 6.5.1 hard rock material 9.5.2 Extra-over items for excavating in Intermediate material Hard rock material Extra-over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING 8.2.4 Provision of Bedding Material from Trench or Other Excavations	6.2.8		Rough shuttering at thrust blocks (per Employer's Agent's instruction)	m²	50				
6.3.1 (a) Selected granular material m² 86 6.3.2 (b) Selected fill blanket m² 120 8.2.2.3 Provision of bedding material by importation from commercial sources. 6.3.3 (a) Selected granular material m² 86 6.3.4 (b) Selected fill blanket m² 120 8.2.4 Concrete at Pipes 6.3.5 Encasing of 110mm dia underfloor drainage pipes in concrete m² 80 6.3.6 Encasing of 505mm dia drainage & scour pipes in concrete m² 8 6.3.7 Encasing of 355mm dia overfloor wippes in concrete m² 4 6.3.8 Encasing of 505mm dia intet pipe in concrete m² 10 6.3.9 Encasing of 505mm dia intet pipe in concrete m² 10 6.3.9 SANS 1200LG PIPE JACKING 8.2.6 SUpply and install pipes by pipe jacking method, complete with excavacions for 500mm steel pipe 8.2.6 SUpply and install pipes by pipe jacking method, complete with excavacions for 500mm steel pipe 9.2.1 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material m² 383 PSD 8.3.3 (b) Extra-over items for excavating in intermediate material Mard rock material Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Entrapyer's Agent after excavation required by the Entrapyer's Agent after excavation nature of the Excavations 6.5.4 Provision of Bedding Material from Trench or Other Excavations	6.3	SANS 1200LB	BEDDING						
6.3.2 (b) Selected fill blanket motions accurately accurately sources. 6.3.3 (a) Selected granular material by importation from commercial sources. 6.3.4 (b) Selected fill blanket m³ 86 6.3.4 (c) Selected fill blanket m³ 120 6.3.5 Encasing of 110mm dia underfloor drainage pipes in concrete m³ 60 6.3.6 Encasing of 150mm dia drainage & socur pipes in concrete m³ 8 6.3.7 Encasing of 150mm dia drainage & socur pipes in concrete m³ 4 6.3.8 Encasing of 550mm dia overflow pipe in concrete m³ 10 6.3.9 Encasing of 500mm dia unitet pipe in concrete m³ 15 6.4 SANS 1200L9 PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm selel pipe m 20 6.4.2 for 600mm selel pipe m 21 6.4.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavation material or -2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material 6.5.1 Intermediate material Factor over items for excavating in Intermediate material Factor over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6.5 SANS 1200LB BEDDING									
8.2.2.3 Provision of bedding material by importation from commercial sources. 6.3.3 (a) Selected granular material m³ 86 6.3.4 (b) Selected granular material m³ 120 8.2.4 Concrete at Pipes 6.3.5 Encasing of 110mm dia underfloor drainage pipes in concrete m³ 60 6.3.6 Encasing of 150mm dia drainage & socur pipes in concrete m³ 8 6.3.7 Encasing of 550mm dia overflow pipe in concrete m³ 4 6.3.8 Encasing of 550mm dia overflow pipe in concrete m³ 10 6.3.9 Encasing of 500mm dia intel pipe in concrete m³ 15 6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations for 500mm steel pipe m 21 6.4.1 for 500mm steel pipe m 21 6.4.2 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavation PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material m³ 383 Hard rock material m³ 256 6.5.4 Extra over items 6 5.1 to 6.5.3 for additional excavations required by the Emptyper's Agent after excavation has been completed 8.2.1 Provision of Bedding Material from Trench or Other Excavations Provision of Bedding Material from Trench or Other Excavations	6.3.1	(a)	Selected granular material	m^3	86				
6.3.3 (a) Selected granular material m³ 86 6.3.4 (b) Selected fill blanket m³ 120 8.2.4 Concrete at Pipes 6.3.5 Encasing of 110mm dia underfloor drainage pipes in concrete m³ 60 6.3.6 Encasing of 150mm dia drainage & socur pipes in concrete m³ 8 6.3.7 Encasing of 350mm dia overflow pipe in concrete m³ 4 6.3.8 Encasing of 500mm dia overflow pipe in concrete m³ 10 6.3.9 Encasing of 500mm dia lottel pipe in concrete m³ 15 6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations for 500mm steel pipe m 20 6.4.1 for 500mm steel pipe m 21 6.4.2 SEWERS 6.5 SANS 1200DB Excavation FSD 8.3.3 (a) Excavation FSD 8.3.3 (b) Excavation FSD 8.3.3 (c) Extra over items for excavating in 1.0 flored in the mediate material m³ 383 Hard rock material m³ 256 6.5.4 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 8.2.1 Provision of Bedding Material from Trench or Other Excavations Provision of Bedding Material from Trench or Other Excavations	6.3.2	(b)	Selected fill blanket	m^3	120				
6.3.4 (b) Selected fill blanket m³ 120 8.2.4 Concrete at Pipes Encasing of 110mm dia underfloor drainage pipes in concrete m³ 60 Encasing of 150mm dia drainage & scour pipes in concrete m³ 8 Encasing of 350mm dia overflow pipe in concrete m³ 4 Encasing of 500mm dia inlet pipe in concrete m³ 10 Encasing of 500mm dia inlet pipe in concrete m³ 10 Encasing of 600mm dia outlet pipe in concrete m³ 15 6.3.9 Encasing of 600mm dia outlet pipe in concrete m³ 15 6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations for 500mm steel pipe m 21 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavation PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material Extra over items for excavation has been completed Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.5.4 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations		8.2.2.3							
8.2.4 Concrete at Pipes Encasing of 110mm dia underfloor drainage pipes in concrete Encasing of 150mm dia drainage & scour pipes in concrete Encasing of 350mm dia drainage & scour pipes in concrete Encasing of 350mm dia overflow pipe in concrete Encasing of 500mm dia overflow pipe in concrete Encasing of 500mm dia inlet pipe in concrete Encasing of 600mm dia inlet pipe in concrete Encasing of 600mm dia overflow pipe in concrete Encasing of 600mm dia drainage k scour pipes in concrete Encasing of 500mm dia drainage pipe in concrete Encasing of 500mm dia drainage k scour pipes in concrete Encasing of 500mm dia drainage k scour pipes in concrete Encasing of 500mm dia drainage pipe in concrete Encasing of 500mm dia drainage pipe in concrete Encasing of 500mm dia drainage pipes in concrete Encasing of 500mm dia drainage pipes in concrete Encasing of 500mm dia drainage k scour pipes in concrete Encasing of 500mm dia drainage pipe in concrete Encasing of 500mm dia drainage pipes in concrete Encasing of 500mm dia drainage pipe in concrete Encasing of 500mm dia drainage pipes in concrete Encasing of 500mm dia drainage pipe in concrete	6.3.3	(a)	Selected granular material	m^3	86				
Encasing of 110mm dia underfloor drainage pipes in concrete Encasing of 150mm dia drainage & scour pipes in concrete Encasing of 350mm dia overflow pipe in concrete Encasing of 350mm dia overflow pipe in concrete Encasing of 500mm dia inlet pipe in concrete Encasing of 500mm dia outlet pipe in concrete Encasing of 600mm dia outlet pipe in concret	6.3.4	(b)	Selected fill blanket	m^3	120				
Encasing of 150mm dia drainage & scour pipes in concrete 6.3.7 Encasing of 350mm dia veriflow pipe in concrete 6.3.8 Encasing of 500mm dia inlet pipe in concrete 6.3.9 Encasing of 500mm dia villet pipe in concrete 73 10 Encasing of 600mm dia villet pipe in concrete 74 15 6.4 SANS 1200LG 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe 75 76 76 76 76 76 76 76 76 76 76 76 76 76		8.2.4	Concrete at Pipes						
6.3.7 Encasing of 350mm dia overflow pipe in concrete 6.3.8 Encasing of 500mm dia inlet pipe in concrete 6.3.9 Encasing of 600mm dia outlet pipe in concrete 6.3.9 Encasing of 600mm dia outlet pipe in concrete 6.4.1 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe 6.4.2 for 600mm steel pipe 7.20 for 600mm steel pipe 8.2.6 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavation PSD 8.3.3 (b) Excavate in all materials for backfill, compact and dispose of material 6.5.1 0m - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material 8.5.3 Hard rock material 8.5.4 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 8.5.3 Provision of Bedding Material from Trench or Other Excavations	6.3.5		Encasing of 110mm dia underfloor drainage pipes in concrete	m³	60				
6.3.8 6.3.9 6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe m 20 6.4.2 for 600mm steel pipe m 21 6.4.2 sexuation PSD 8.3.3 (a) Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 0m - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material Hard rock material Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.3.6		Encasing of 150mm dia drainage & scour pipes in concrete	m³	8				
6.3.9 6.4 SANS 1200LG 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe m 20 6.4.2 for 600mm steel pipe m 21 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 0m - 2m m 3 639 PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material Hard rock material Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 8.2.2.1 Provision of Bedding Material from Trench or Other Excavations	6.3.7		Encasing of 350mm dia overflow pipe in concrete	m³	4				
6.4 SANS 1200LG PIPE JACKING 8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe m 20 6.4.2 for 600mm steel pipe m 21 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1	6.3.8		Encasing of 500mm dia inlet pipe in concrete	m³	10				
8.2.6 Supply and install pipes by pipe jacking method, complete with excavations 6.4.1 for 500mm steel pipe m 20 6.4.2 for 600mm steel pipe m 21 SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1 om - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.3.9		Encasing of 600mm dia outlet pipe in concrete	m³	15				
excavations 6.4.1 for 500mm steel pipe for 600mm steel pipe sewers 6.5 SANS 1200DB PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1 Om - 2m PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.4	SANS 1200LG	PIPE JACKING						
6.4.2 for 600mm steel pipe SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1 0m - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in 6.5.2 Intermediate material m³ 383 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations		8.2.6							
SEWERS 6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1	6.4.1		for 500mm steel pipe	m	20				
6.5 SANS 1200DB Excavation PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 6.5.1 Om - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in 6.5.2 Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.5.4 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.4.2		for 600mm steel pipe	m	21				
PSD 8.3.3 (a) Excavate in all materials for backfill, compact and dispose of material 0m - 2m PSD 8.3.3 (b) Extra-over items for excavating in 1.5.2 Intermediate material 1.5.3 Hard rock material 1.5.4 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 1.5.4 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 1.5.4 Provision of Bedding Material from Trench or Other Excavations			SEWERS						
6.5.1 Om - 2m m³ 639 PSD 8.3.3 (b) Extra-over items for excavating in 6.5.2 Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.5	SANS 1200DB	Excavation						
PSD 8.3.3 (b) Extra-over items for excavating in Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations		PSD 8.3.3 (a)	Excavate in all materials for backfill, compact and dispose of material						
Intermediate material m³ 383 6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed m³ 90 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.5.1		0m - 2m	m³	639				
6.5.3 Hard rock material m³ 256 Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed m³ 90 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations		PSD 8.3.3 (b)	Extra-over items for excavating in						
Extra over items 6.5.1 to 6.5.3 for additional excavations required by the Employer's Agent after excavation has been completed 6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.5.2		Intermediate material	m^3	383				
6.6 SANS 1200LB BEDDING Provision of Bedding Material from Trench or Other Excavations	6.5.3		Hard rock material	m^3	256				
Provision of Bedding Material from Trench or Other Excavations	6.5.4			m³	90				
	6.6	SANS 1200LB	BEDDING						
6.6.1 (a) Selected granular material m ³ 70	6.6.1	(a)	Selected granular material	m^3	70				
SUB-TOTAL CARRIED FORWARD		SUB-TOTAL CARRIED FORWARD							

Employer:	Contractor:	
Witness:	Witness:	





SECTION 6: INTERCONNECTING PIPEWORK

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
	8.2.2.3	Provision of bedding material by importation from commercial sources				
6.6.3	(a)	Selected granular material	m ³	20		
6.6.4	(b)	Selected fill blanket	m^3	30		
6.6.5	8.2.3	Grade 20/19 concrete in bedding cradle	m^3	50		
6.7	SANS 1200LD	SEWER RETICULATION				
	8.2.1	Supply, Lay, Joint and test uPVC Pipes				
6.7.1		50 mm diameter uPVC basin drain from guard house	m	100		
6.7.2		110 mm diameter PVC sewer drainage pipe connecting from guard house	m	800		
6.7.3		200 mm diameter uPVC sewer drainage pipe connecting from guard house	m	750		
		Manholes				
	8.2.3	Manholes 1250 mm inside diameter complete with concrete base, type 4 cover and frame, for depths				
6.7.4		0.5 m - 1.0 m	No.	2		
6.7.5		1.0 m - 1.5 m	No.	2		
		Extra over for type 2A manhole cover and frame	No.	2		
	(a)	Services that Intersect a pipe trench				
6.7.6		Electrical cables (irrespective of diameter)	No.	2		
6.7.7	4.)	Pipeline (irrespective of diameter)	No.	2		
	(b)	Services that adjoin a pipe trench		400		
6.7.8		Pipeline (irrespective of diameter)	m	100		
6.7.9	8.2.7	Encasement of pipes in class 15/20 concrete where directed by the Employer's Agent only	m ³	25		
	8.2.11	Connection Existing Sewer Line				
6.7.10		Tie into exisiting 500 dia. pipe	Sum	1		
6.7.11		Tie into exisiting 600 dia. pipe	Sum	1		
6.7.12	8.2.12	Raising or lowering of existing manholes	No	4		
		Building Pipes into Brickwork				
	8.4	SUPPLYING AND BUILDING HDPE OR uPVC PIPES AS SPECIFIED INTO BRICKWORK (FOR CABLE SLEEVES OR PIPE SLEEVES)				
6.7.13		50 mm dia. uPVC Tee piece	No.	2		
6.7.14		110 mm dia. uPVC Tee piece	No.	2		
		TOTAL FOR SECTION 6 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	







SECTION 7: GUARD HOUSE

7.1 SANS 1200 D EAR Rest Rest Rest Rest Rest Rest Rest Res	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8.3.3 Rest Excall in 7.1.1 Strip Apro PSD 8.3.3 (b) Extr. 7.1.2 Inter 7.1.3 Hard 7.1.5 8.3.6 Over R.2 SANS 1200G R.2 Form R.2.1 Rour Plan 7.2.1 Side R.2.2 Smo Plan 7.2.2 Edge Plan 7.2.4 PSG 8.3 Rein PSG 8.3 Ref. Re	ECTION 7: GUARD HOUSE				
7.1.1 8.3.3 Excapana Rate Rat	ARTHWORKS				
7.1.1 Strip Apro PSD 8.3.3 bl Extr. 7.1.2 Inter 7.1.3 Hard 7.1.4 Extra 7.1.5 8.3.6 Over 8.2 Form 8.2.1 Roug Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blint 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.11 Floor 7.2.11 Floor 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	testricted Excavation				
7.1.1 Strip Apro PSD 8.3.3 (b) Extr. 7.1.2 Inter 7.1.3 Hard 7.1.4 Extre Engi 7.1.5 8.3.6 Over 8.2 Form 8.2.1 Rout Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge 7.2.3 Edge 7.2.4 PSG 8.3 Rein 7.2.5 High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blin 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	excavate for restricted foundations, footings and pipe trenches in				
PSD 8.3.3 (b) Extr. 7.1.2 Inter 7.1.3 Hard 7.1.4 Extraction of the property	Il materials and use for backfill or embankment or dispose				
PSD 8.3.3 (b) Extr. 7.1.2 Inter 7.1.3 Hard 7.1.4 Extr. Engi 7.1.5 8.3.6 Over 7.2 SANS 1200G CON 8.2 Form 8.2.1 Rough Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blin 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	strip Footings	m³	12		
7.1.2 Inter 7.1.3 Hard 7.1.4 Extra 7.1.5 8.3.6 Over 7.2 SANS 1200G CON 8.2 Form 8.2.1 Roug Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	pron Slab	m³	2		
7.1.3 Hard 7.1.4 Extra Engi 7.1.5 8.3.6 Over 7.2 SANS 1200G CON 8.2 Form 8.2.1 Rough Plan 7.2.1 Side 8.2.2 Smoo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blin 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	extra-over items for excavating in				
7.1.4 Extra Engi 7.1.5 8.3.6 Over 7.2 SANS 1200G CON 8.2 Form 8.2.1 Rour Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	ntermediate material	m^3	213		
7.1.4 Engi 7.1.5 8.3.6 Over 7.2 SANS 1200G CON 8.2 Form 8.2.1 Rough Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.11 Floor 7.2.12 Apro	lard rock material	m^3	213		
7.2.1 SANS 1200G 8.2 Form 8.2.1 Rough Plan 7.2.1 Side 8.2.2 Smood Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffit PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Cond 8.4.2 Blind 7.2.9 Under 7.2.10 Strip 7.2.11 Flood 7.2.11 Flood 7.2.12 Aproducts	extra over items 7.1.2 to 7.1.4 for additional excavations required by the ingineer after excavation has been completed	m³	90		
8.2 Form 8.2.1 Rough Plan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blint 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Overhaul	m³.km	250		
7.2.1 8.2.1 Roughlan 7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blin 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	CONCRETE (STRUCTURAL)				
7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	ormwork				
7.2.1 Side 8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 8.1.3 Con 8.4.2 Blin 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floo 7.2.12 Apro	lough Formwork				
8.2.2 Smo Plan 7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	lane Vertical				
7.2.2 Edge 7.2.3 Edge 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 8.1.3 Con 8.4.2 Blint 7.2.9 Under 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	ides of Footings	m²	7		
7.2.2 Edge 7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	mooth Formwork				
7.2.3 Edge Plan 7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stree 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Plane Vertical				
7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	dge of roof slab	m²	7		
7.2.4 Soffi PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stree 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	dge of apron slab (80mm thick)	m²	2		
PSG 8.3 Rein 7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Blin 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Plane Horizontal				
7.2.5 High 7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con 8.4.2 Bline 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	offit of Roof slab	m ²	18		
7.2.6 Mild High 7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con. 8.4.2 Blind 7.2.9 Unde Stree 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Reinforcement				
7.2.7 Ref. 7.2.8 Ref. 8.1.3 Com 8.4.2 Blin 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	ligh tensile steel bars	t	0.21		
7.2.7 Ref. 7.2.8 Ref. 8.1.3 Con. 8.4.2 Blind 7.2.9 Under Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	fild steel bars	t	0.06		
7.2.8 Ref. 8.1.3 Con. 8.4.2 Blind 7.2.9 Under Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	ligh Tensile Welded Mesh	2			
8.1.3 Com 8.4.2 Blin 7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	tef. 245 for floor slabs	m ²	8		
7.2.9 Unde Stre 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Ref. 193 for apron slabs	m ²	23		
7.2.9 Under Stree 7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	concrete				
7.2.10 Strip 7.2.11 Floor 7.2.12 Apro	Blinding Layer in Grade 15/19 concrete with 50mm thickness	2			
7.2.10 Strip 7.2.11 Floo 7.2.12 Apro	Inderneath footing	m ²	12		
7.2.11 Floor 7.2.12 Apro	strength Concrete 25/19				
7.2.12 Apro	trip footing (600 mm wide, 250 mm thick)	m ³	10		
	loor slab	m ³	10		
8.4.4 a) Woo	pron Slabs (80mm thick)	m ³	2		
	Vood float finish for upper surfaces of:				
7.2.13 Top	op of floors and apron slabs	m ²	25		
	SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 7: GUARD HOUSE

	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	8.5	Joints				
	8.5.2	Filled Joints				
		Joint filler consisting of closed cell expanded polyethylene with density not less than 120kg/m³ including bullnose finish to both sides of joint and tear off strip				
7.2.14		10 mm wide between 100 mm concrete apron	m	1		
7.2.15		20 mm wide between concrete and brickwork	m	40		
	8.5.3	Sealed Joints				
		Joint sealer (20 x 15 mm) consisting of a two component polyether based polyurethane sealing compound on visible face of joint including primer and bond breaker				
7.2.16		20 mm joint between brick and concrete	m	39		
	PSU	Building Work				
7.3	PSU 8.8	IRONMONGERY				
		Doors and Windows				
		Steel doors, frames and windows (as per schedule on drawing 13214-73-04-003)				
7.3.1	PSU 8.8.1 (b)	1000mm x 2000mm High Single Panel Steel Combination Door & Frame	No.	1		
7.3.2	PSU 8.8.3	1000mm x 2000mm High Single Panel Steel Security Gate.	No.	1		
7.3.3		800mm x 2100mm High standard semi-solid door to be supplied with frame, cabin hook and a level 3 lock set complete with two keys. All fittings, door restraints and hinges solid brass	No.	1		
7.3.4		1020mm x 950mm Windows SSF43 with burglar proofing	No.	3		
7.3.5		410mm x 610mm - M fixed with trim. Including 12mm diameter MS burglar proofing on full face of window, glazed and painted to system A2.	No.	1		
7.3.6	PSU 8.15 (b)	Painting of doors and windows	No.	2		
7.3.7	PSU 8.15 (c)	Painting of windows	No.	3		
7.4	PSLE	POLYETHYLENE SHEETING				
7.4.1	8.2.18	250 micron polyethylene underneath strip footing and floor slab including ANT poison to SANS 618	m²	10		
		Brickwork				
7.4.2	PSU 8.1 (b)	230mm thick, both faces, 14 MPa face brick Exterior wall including brick force	m^2	5		
7.4.3	PSU 8.1 (c)	115mm thick, 14 MPa face brick Interior Wall including brick force	m^2	5		
7.5		GENERAL - FIXTURES				
7.5.1		Installation of Wall Mounted Wash basin with Basin Taps	No.	1		
7.5.2		Installation of Front Flush Toilet Suite	No.	1		
		EXISTING SERVICES				
7.5.3		Water supply to guard house	Sum	1		
		TOTAL FOR SECTION 7 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	



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SCHEDULE OF QUANTITIES



SECTION 8: TELEMETRY HUT

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 8: TELEMETRY HUT				
8.1	SANS1200D	EARTHWORKS				
	8.3.3	Restricted Excavation				
	8.3.3 a)	Excavate for restricted foundations, footings and pipe trenches in all materials and use for backfill or embankment or dispose				
8.1.1		Footings	m³	8		
8.1.2		Apron Slab	m³	2		
	PSD 8.3.3 (b)	Extra-over items for excavating in				
8.1.3		Intermediate material	m^3	7.5		
8.1.4		Hard rock material	m^3	6		
8.1.5		Extra over items 8.1.1 to 8.1.3 for additional excavations required by the Engineer after excavation has been completed	m³	5.5		
8.1.6	8.3.6	Overhaul	m³.km	250		
8.2	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.1	Rough Formwork				
		Plane Vertical				
8.2.1		Sides of Footings	m²	5		
8.2.2		Edge of apron slab (80mm thick)	m²	2		
		Plane Horizontal				
8.2.3		Soffit of Roof slab	m²	16		
	8.2.5	Narrow width (up to 300mm wide)				
8.2.4		Sides of floor slabs	m	11		
8.2.5		Sides of roof slab	m	16		
	PSG 8.2.6	Box Out Holes/Form Voids				
	PSG 8.2.6 (a)	Cylindrical Openings with Volume				
		Over and up to and Including				
8.2.6		(ii) 0,01-0,05 m³	No.	4		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
8.2.7		25 mm along edge of roof	m	25		
	8.3.2	High Tensile Welded Mesh				
8.2.8		Ref. 245 for floor slabs	m^2	10		
8.2.9		Ref. 193 for apron slabs	m^2	16		
	8.1.3	Concrete				
	PSG 8.4.3	Strength of Concrete: 15/19				
8.2.10	8.4.2	Blinding layer 50mm thick under footing (horizontal)	m²	10		
		Strength Concrete : 25/19				
8.2.11		Strip footing (650 mm wide, 250 mm thick)	m ³	5		
8.2.12		Apron Slabs (80mm thick)	m ³	2		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







SECTION 8: TELEMETRY HUT

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
			2	_		
8.2.13		Floor slab	m ³	2		
8.2.14	244	Roof	m ³	4		
0.045	8.4.4 a)	Wood float finish for upper surfaces of:	2	40		
8.2.15		Floor Slab	m ²	10		
8.2.16	DOC 9.5	Apron Slab	m ²	16		
	PSG 8.5	Joints				
8.2.17		10 mm Joint with approved polysulphide sealant as per drawing 13214-73-005-001	m	10		
	8.5.2	Filled Joints				
		Joint filler consisting of closed cell expanded polyethylene with density not less than 120kg/m3 including bullnose finish to both sides of joint and tear off strip				
8.2.18		20 mm wide between concrete members	m	5		
8.2.19		20 mm wide between concrete and brickwork	m	35		
	8.5.3	Sealed Joints				
		Joint sealer (20 x 15 mm) consisting of a two component polyether based polyurethane sealing compound on visible face of joint including primer and bond breaker				
8.2.20		20 mm joint between brick and concrete	m	32		
		Building Work				
8.3	PSLE	POLYETHYLENE SHEETING				
8.31		250 micron polyethylene underneath strip footing and floor slab including ANT poison to SANS 618	m²	10		
8.3.2		DPC as specified by the employer's agent	m²	5		
8.4	PSU	BRICKWORK				
8.4.1	PSU 8.1 (b)	230mm thick, both faces, 14 MPa face brick including brick force	m^2	5		
	PSU 8.8	Ironmongery				
	PSU 8.8.1	Doors and Windows				
		Steel doors, frames and windows (as per schedule on drawings 13214-73-05-001: Doors)				
8.4.2	PSU 8.8.1 (b)	900mm x 2100mm High Single Panel Steel Combination Door & Frame	No.	1		
8.4.3	PSU 8.8.3	1000mm x 2000mm High Single Panel Steel Security Gate.	No.	1		
		TOTAL FOR SECTION 8 (Carried to Summary)				
		TO THE FOR OLD HOR O (Dailied to Dullillially)				

Employer:	Contractor:	
Witness:	Witness:	







SECTION 9: VALVE BUILDING

9.1	SANS1200D	SECTION 9: VALVE BUILDING			
9.1	SANS1200D				
	1	EARTHWORKS			
	PSD 8.3.3	Restricted Excavation			
	PSD 8.3.3 (a)	Excavate for restricted foundations, footings and pipe trenches in all materials and use for backfill or embankment or dispose			
9.1.1		0 to 2m deep	m³	320	
9.1.2		2m to 4m deep	m³	265	
	PSD 8.3.3 (b)	Extra over items 9.1.1 to 9.1.2 for			
9.1.3		Soft material	m^3	280	
9.1.4		Intermediate material	m^3	123	
9.1.5		Hard rock material	m^3	133	
9.1.6		Extra over items 9.1.3 to 9.1.5 for additional excavations required by the Engineer after excavation has been completed			
9.1.7	8.3.3.4	Overhaul	m³.km	250	
	PSLD	Building Pipes into Concrete Work			
	8.3(a)	Pipes Supplied and Installed by the Contractor (Irrespective of type)			
9.1.8		500mm Stainless Steel Inlet	No	2	
9.1.9		600mm Stainless Steel Outlet	No	2	
	SANS 1200L	PIPEWORK			
	PSL 8.2.5	Pipe Specials			
9.1.10		Supply, testing and installation of pipework, fittings and specials brought forward from the Pipe Schedule for the Valve Building (building in of pipes measured elsewhere)	Sum	1	
9.2	SANS 1200G	CONCRETE (STRUCTURAL)			
	8.2	Formwork			
		Smooth Formwork			
		Plane Vertical			
9.2.1		Edge of floor slab	m²	320	
9.2.2		Internal & External Sump walls	m²	8	
9.2.3		Internal & External valve building walls	m²	302	
9.2.4		Edge of walkway	m²	15	
9.2.5		Sides of stairs	m²	5	
9.2.6		Risers of stairs	m²	5	
9.2.7		Columns	m²	67	
9.2.8		Ring beam	m²	81	
9.2.9		Support beam	m²	162	
9.2.10		Edge of concrete roof	m²	15	
9.2.11		Pipe supports	m²	14	
		SUB-TOTAL CARRIED FORWARD			

Employer:	Contractor:	
Witness:	Witness:	







SECTION 9: VALVE BUILDING

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward		4		7
		Plane Horizontal				
9.2.12		Soffit of walkway	m²	25		
9.2.13		Soffit of ring beams	m²	15		
9.2.14		Soffit of support beams	m²	15		
9.2.15		Soffit of roof	m²	254		
		Plane Sloping				
9.2.16		Soffit of staircase	m²	7		
	PSG 8.2.7	Chamfers larger than 20mm x 20mm				
9.2.17		25 mm along edge of roof	m	125		
	8.4	Concrete				
	8.4.3	Strength of Concrete: 15/19				
9.2.18		Screed on top of floor	m²	160		
	8.4.3	Strength of Concrete: 15/19				
9.2.19		Blinding layer 50mm thick	m²	160		
		Strength of Concrete: 25/19				
9.2.20		Apron	m³	15		
	8.4.3	Strength of Concrete: 35/19				
9.2.21		Floor	m³	80		
9.2.22		Walls	m³	65		
9.2.23		Pipe supports	m³	5		
9.2.24		Walkway	m³	15		
9.2.25		Stairs	m³	2		
9.2.26		Columns	m³	5		
9.2.27		Ring beams	m³	10		
9.2.28		Support beams	m³	20		
9.2.29		Roof	m³	59		
9.2.30		Concrete Sump	m³	5		
9.2.31	8.3	Reinforcement				
9.2.32	8.3.1	High Tensile Reinforced Bars	t	15		
9.2.33		Mild Steel Reinforced to Structural Concrete Work	t	5		
	8.4.4	Unformed Surface Finishes				
	8.4.4 (a)	Wood Floated Finish				
9.2.34		Top of floor	m²	160		
9.2.35		Top of walkway	m²	30		
9.2.36		Treads of stairs	m²	5		
	8.5	Joints				
	8.5.2	Filled Joints (Including Formwork)				
	0.0.2	Same (managing i offittoria)				
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





SECTION 9: VALVE BUILDING

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
		Joint Filler Consisting of Closed Cell Expanded Polyethylene with Density not less than 120 kg/m3 including Bullnose Finish to both sides of Joint.				
9.2.37		20 mm wide between 100 mm concrete apron	m	14		
9.3	SANS 1200HA	STRUCTURAL STEELWORK (SUNDRY ITEMS)				
	8.3.1	Crawl Beam				
		Supply and Installation of 254x146x31 kg/m Galvanized M.S I-Beam complete with stops ends, etc. All as shown on drawing 13214-73-05-006, including testing and a certificate proving compliance with the requirements of the department of labour				
9.3.1		14 700 mm long	No.	2		
9.3.2		M20 galvanized cast in U-bolts complete with spacers, washers and nuts and M20 anchor bars for fixing of crawl beam	No.	32		
	PSHA 8.3.2(b)	Handrail Assembly Complete				
9.3.3		Supply and installation of complete 3CR12 stainless steel handrail assembly	m	35		
9.4	PSU	BUILDING WORK				
	8.1	Brickwork				
9.4.1	PSU 8.1 (b)	230mm thick, both faces, 7MPa face brick including brick force and damp proofing	m²	306		
		Air Bricks				
9.4.2		170 mm x 170 mm Standard vermin proof air bricks	No.	4		
9.5	PSU 8.6	WATERPROOFING OF CONCRETE ROOFS				
9.5.1		Valve Building	Sum	1		
9.6	PSU 8.8	IRONMONGREY				
	PSU 8.8.1	Steel doors, frames and windows (as per schedule on drawings 13214-73-05-005)				
9.6.1	PSU 8.8.1 (b)	D2 standard single steel door and frame (940 wide x 2 134 mm high)	No.	1		
9.6.2	PSU 8.8.1 (c)	Windows SS43 with burglar proofing	No.	10		
9.6.3		Industrial Type Roller shutter door (3m wide x 3m high)	No.	1		
9.7		WATER SAMPLING POINT				
9.7.1		Lockable sample box to be fixed to building as per drawing 13214-73-05-006 detail C	No.	1		
9.8		MECHANICAL EQUIPMENT				
9.8.1		Underhung overhead crane to fit onto the two fixed crawl beams (item 9.3.1) 10.17m apart (motorised)	No.	1		
9.8.2		Submersible pump to deliver 3 l/s at a head of 10m including 40mm dia. GMS piping inside the building	No.	1		
9.8.3		Submersible pump to deliver 3 l/s at a head of 10m including 20m long 40mm dia. Flexible pipe	No.	1		

Employer:	Contractor:	
Witness:	Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TIEWINO	PATMENT CLAUSE	DESCRIPTION	ONIT	QII	NATE	AMOUNT
		SECTION 10: ELECTRICAL AND C&I				
10.1	PSY 1.2	ELECTRICAL CALBLE RACKS				
		Rate to include for the Supply only of the following Plant And Equipment Including Delivery, Storage, Quality Assurance and All Necessary Insurance				
		Supply and Deliver Cable Ladder				
10.1.1		100mm wide x 76mm	m	30		
		Supply and Deliver of Horizontal Bends				
10.1.2		100mm wide x 76mm	ea	4		
		Supply and Deliver of Vertical Bends				
10.1.3		100mm wide x 76mm	ea	4		
		Supply and Deliver of Internal Bends				
10.1.4		100mm wide x 76mm	ea	4		
		Supply and Deliver of External Bends				
10.1.5		100mm wide x 76mm	ea	3		
		Supply and Deliver of Tee-Pieces				
10.1.6		100mm wide x 76mm	ea	3		
		Supply and Deliver of Cable Ladder Support Struts Material				
10.1.7		P1000 (41x41 x 2.5mm thickness)	m	6		
10.1.8		P1000T (41x41 x 2.5mm thickness, slot 25x11@50centers)	m	18		
		Supply and Deliver of Cable Ladder Support Cantilever Arms P1000 arm				
10.1.9		150mm	ea	4		
10.1.10		200mm	ea	8		
10.1.11		250mm	ea	2		
10.2	PSY 1.2	Rate to include only for Installation, Commissioning, Testing And Adjusting The Following Plant and Equipment as a Completely Separate Operation Sometime after the Completion and/or Erection and Installation, Including Transportation And Accommodation for Personnel				
	E02.8	Installation of Cable Ladder				
10.2.1		100mm wide x 76mm	m	30		
	E02.8	Installation of Horizontal Bends				
10.2.2		100mm wide x 76mm	ea	4		
	E02.8	Installation of Vertical Bends				
10.2.3		100mm wide x 76mm	ea	4		
	E02.8	Installation of Internal Bends				
10.2.4		100mm wide x 76mm	ea	4		
	E02.8	Installation of External Bends				
10.2.5		100mm wide x 76mm	ea	3		
		SUB-TOTAL CARRIED FORWARD				
		SUD-TUTAL CARRIED FURWARD				

Employer:	Contractor:	
Witness:	Witness:	







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ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward		·		
10.2.6	E02.8	Installation of Tee-Pieces 100mm wide x 76mm	ea	3		
	E02.8	Installation of Cable Ladder Support Struts Material				
10.2.7		P1000 (41x41 x 2.5mm thickness)	m	6		
10.2.8		P1000T (41x41 x 2.5mm thickness, slot 25x11@50centers)	m	18		
	E02.8	Installation of Cable Ladder Support Cantilever Arms P1000 arm				
10.2.9		150mm	ea	4		
10.2.10		200mm	ea	8		
10.2.11		250mm	ea	2		
10.3	Vol3	SCADA System				
		Rate to include for the Supply only of the following Plant and Equipment Including Delivery, Storage, Quality Assurance and all Necessary Insurances				
10.3.1		PC Amount for SCADA Software	Prov. Sum	1	R 950 000	R 950 000.00
10.3.2		% Makup on SCADA Software	%	R 950 000		
10.3.3		PC Amount for SCADA Programing	Prov. Sum	1	R 555 000	R 555 000.00
10.3.4		% Makup on SCADA Programing	%	R 555 000		
10.4		ELECTRICAL DISTRIBUTION SYSTEM				
		Rate to include for the Supply only of the following Plant and Equipment Including Delivery, Storage, Quality Assurance and all Necessary Insurances				
10.4.1	PSX 2	Level sensor and kiosk at Carlswarld Reservoir	No.	1		
10.4.2	PSX 3	Flow meter installation and kiosk at Reservoir Inlet	Sum	1		
10.4.3	PSX 3	Flow meter installation and kiosk at Reservoir Outlet	Sum	1		
10.4.4		Notices at all Buildings	Sum	1		
10.4.5	PSY 6	Lightning protection of Carlswarld Reservoir	Sum	1		
10.4.6	PSX 8.1	Main Distrubution Board in Valve Building	Sum	1		
10.5		Rate to include only for Handling including Double Handling if Stored, Transportation and Handling on site, Erection, Quality Assurance and Installation of The Following Plant and Equipment				
10.5.1	PSX 2	Level sensor and kiosk at New Carlswarld Reservoir	No.	1		
10.5.2	PSX 3	Flow meter installation and kiosk at Reservoir Inlet	Sum	1		
10.5.3	PSX 3	Flow meter installation and kiosk at Reservoir Outlet	Sum	1		
10.5.4		Notices at all Buildings	Sum	1		
10.5.5	PSY 6	Lightning protection of New Carlswarld Reservoir	Sum	1		
10.5.6	PSX 8.1	Main Distrubution Board in Valve Building	Sum	1		
		CUR TOTAL CARRIER FORWARD				
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
10.6		Rate to include only for Installation, Commissioning, Testing And Adjusting The Following Plant and Equipment as a Completely Separate Operation Sometime after the Completion and/or Erection and Installation, Including Transportation And Accommodation for Personnel				
10.6.2	PSX 3	Flow meter installation and kiosk at Reservoir Inlet	Sum	1		
10.6.3	PSX 3	Flow meter installation and kiosk at Reservoir Outlet	Sum	1		
10.6.4		Notices at all Buildings	Sum	1		
10.6.5	PSY 6	Lightning protection of New Carlswarld Reservoir	Sum	1		
10.6.6	PSX 8.1	Main Distrubution Board in Valve Building ELECTRICAL INSTALLATION IN BUILDINGS AND ON STRUCTURES	Sum	1		
10.7		Rate to include for the Supply only of the following Plant and Equipment Including Delivery, Storage, Quality Assurance and all Necessary Insurance				
10.7.1	PSY 8.2	Complete electrical installation in new Carswarld valve building DB-01	Sum	1		
10.7.2	DRW's	Type A Light Fitting	No.	3		
10.7.3	DRW's	Type B Light Fitting	No.	3		
10.7.4	DRW's	Type C Light Fitting	No.	4		
10.7.5	PSY 4.2	Area Lighting Fitting	No.	8		
10.7.6	PSY 4.3	Aviation Light Fitting on the Reservoir	No.	4		
10.7.7	PSY 8.3	Area Light Fitting on the Reservoir	No.	6		
10.7.8	PSY 8.3	Complete electrical installation in new Carswarld ReservoirReservoir Telemetry Hut DB-02	Sum	1		
10.7.9	DRW's	Type A Light Fitting	No.	1		
10.7.10	PSY 4	Area Lighting Fitting	No.	4		
10.7.11	PSY 8.3	Complete electrical installation in new Carswarld Reservoir Guard Hut DB-03	Sum	1		
10.7.12	DRW's	Type A Light Fitting	No.	1		
10.7.13	DRW's	Type B Light Fitting	No.	1		
10.7.14	PSY 4	Area Lighting Fitting	No.	4		
	PSY 4	Lighting installation on Carswarld Reservoir Site				
10.7.15	PSY 4.1	15m Highmast pole with 3X208W LED type Flood lights for area lighting	No.	2		
10.8		Rate to include only for Handling including Double Handling if Stored, Transportation and Handling on site, Erection, Quality Assurance and Installation of The Following Plant and Equipment				
10.8.1	PSY 8.2	Complete electrical installation in new Carswarld valve building DB-01	Sum	1		
10.8.2	DRW's	Type A Light Fitting	No.	3		
10.8.3	DRW's	Type B Light Fitting	No.	3		
10.8.4	DRW's	Type C Light Fitting	No.	4		
	<u> </u>	SUB-TOTAL CARRIED FORWARD		l		

Employer:	Contractor:	
Witness:	Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
40.0.	5077.6					
10.8.5	PSY 4.2	Area Lighting Fitting	No.	8		
10.8.6	PSY 4.3	Aviation Light Fitting on the Reservoir	No.	4		
10.8.7	PSY 8.3	Area Light Fitting on the Reservoir	No.	6		
10.8.8	PSY 8.3	Complete electrical installation in new Carswarld ReservoirReservoir Telemetry Hut DB-02	Sum	1		
10.8.9	DRW's	Type A Light Fitting	No.	1		
10.8.10	PSY 4	Area Lighting Fitting	No.	4		
10.8.11	PSY 8.3	Complete electrical installation in new Carswarld Reservoir Guard Hut DB-03	Sum	1		
10.8.12	DRW's	Type A Light Fitting	No.	1		
10.8.13	DRW's	Type B Light Fitting	No.	1		
10.8.14	PSY 4 PSY 4	Area Lighting Fitting Lighting installation on Carswarld Reservoir Site	No.	4		
10.8.15	PSY 4.1	15m Highmast pole with 3X208W LED type Flood lights for area lighting	No.	2		
10.9		Rate to include only for Installation, Commissioning, Testing And Adjusting The Following Plant and Equipment as a Completely Separate Operation Sometime after the Completion and/or Erection and Installation, Including Transportation And Accommodation for Personnel				
10.9.1	PSY 8.2	Complete electrical installation in new Carswarld valve building DB-01	Sum	1		
10.9.2	DRW's	Type A Light Fitting	No.	3		
10.9.3	DRW's	Type B Light Fitting	No.	3		
10.9.4	DRW's	Type C Light Fitting	No.	4		
10.9.5	PSY 4.2	Area Lighting Fitting	No.	8		
10.9.6	PSY 4.3	Aviation Light Fitting on the Reservoir	No.	4		
10.9.7	PSY 8.3	Area Light Fitting on the Reservoir	No.	6		
10.9.8	PSY 8.3	Complete electrical installation in new Carswarld ReservoirReservoir Telemetry Hut DB-02	Sum	1		
10.9.9	DRW's	Type A Light Fitting	No.	1		
10.9.10	PSY 4	Area Lighting Fitting	No.	4		
10.9.11	PSY 8.3	Complete electrical installation in new Carswarld Reservoir Guard Hut DB-03	Sum	1		
10.9.12	DRW's	Type A Light Fitting	No.	1		
10.9.13	DRW's	Type B Light Fitting	No.	1		
10.9.14	PSY 4	Area Lighting Fitting	No.	4		
	PSY 4	Lighting installation on Carswarld Reservior Site				
10.9.15	PSY 4.1	15m Highmast pole with 3X208W LED type Flood lights for area lighting	No.	2		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
	PSX 5	TELEMETRY SYSTEM				
10.10		Rate to include for the Supply only of the following Plant And Equipment Including Delivery, Storage, Quality Assurance and all Necessary Insurances				
10.10.1		Changes to existing SCADA system at JW Control Room to add I/O for the new site as per new telemetry system below	Sum	1		
10.10.2		New telemetry system at Carlswarld Reservoir	Sum	1		
10.11		Rate to include only for Handling including Double Handling if Stored, Transportation and Handling on site, Erection, Quality Assurance and Installation of The Following Plant and Equipment				
10.11.1		Changes to existing SCADA system at JW Control Room to add I/O for the new site as per new telemetry system below	Sum	1		
10.11.2		New telemetry system at Carlswarld Reservoir	Sum	1		
10.12		Rate to include only for Installation, Commissioning, Testing and Adjusting the following Plant and Equipment as a Completely Separate Operation Sometime after the Completion and/or Erection and Installation, Including Transportation and Accommodation for personnel				
10.12.1		Changes to existing SCADA system at JW Control Room to add I/O for the new site as per new telemetry system below	Sum	1		
10.12.2		New telemetry system at Carlswarld Reservoir	Sum	1		
		MULTICORE CABLES AND EARTHWIRES				
10.13	PSY 1.7 & PSY 1.9	Rate to include for the Supply only of the following Plant and Equipment Including Delivery, Storage, Quality Assurance and all Necessary Insurance				
10.13.1	а	2.5mm² 3 - Core Cable	m	280		
10.13.2	b	70mm² Bare Copper Earth Wire	m	300		
10.13.3	С	16mm² 3 - Core Cable	m	655		
10.13.4	d	16mm² Bare Copper Cable	m	265		
10.13.5	е	16mm² 4-Core Cable	m	75		
10.13.6	E06.4.17	Cable route markers	No.	12		
10.13.7	E06.4.1	Concrete cable slabs (200 x 400 x 40)	No.	220		
10.13.8	E06.9	Cable name tags	Sum	1		
10.13.9	E06.3.6	Cable supports	Sum	1		
10.13.10		Pump set sensor termination cubicle	No.	1		
10.13.11		Core drilling 100mm diameter holes through 250mm concrete	No.	5		
10.14	PSY 1.7	Rate to include only for Installation, Commissioning, Testing and Adjusting the following Plant and Equipment as a Completely Separate Operation Sometime after the Completion and/or Erection and Installation, Including Transportation and Accommodation for personnel				
10.14.1	а	2.5mm² 3 - Core Cable	m	280		
10.14.2	b	70mm² Bare Copper Earth Wire	m	300		
10.14.3	С	16mm² 3 - Core Cable	m	655		
10.14.4	d	16mm² Bare Copper Cable	m	265		
10.14.5	е	16mm² 4-Core Cable	m	75		
		SUB-TOTAL CARRIED FORWARD				

Employer:	Contractor:	
Witness:	Witness:	





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Johannesburg Water

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QT	ГҮ		RATE		AMOUNT
	540	brought forward							
	E16	POWER SUPPLY UNITS							
10.15		The tendered rate shall include full compensation for the manufacture, supply, testing and delivery of the UPS incorporating all options/extras as detailed in the detail specification.							
10.15.1	E16.10	Supply and deliver UPS	No.	2	2				
10.15.2	E16.10	Supply and deliver 1kVA hybrid inverter with 4x100Ah batteries for Aviation lights.	No.	2	2				
10.16		The tendered rate shall include full compensation for the installation, site testing and commissioning plus the 12 months maintenance of the UPS incorporating all options/extras as detailed in the detail specification.							
10.16.1	E16.10	Install standby UPS	No.	2	2				
10.16.2	E16.10	Supply and deliver 1kVA hybrid inverter with 4x100Ah batteries for Aviation lights	No.	2	2				
10.17		The tendered rate shall include full compensation for the manufacture, supply, testing and delivery of the support platform/stand for UPS as detailed in the detail specification.							
10.17.1	E16.10	Supply and deliver support platform/stand for UPS	No.	2	2				
10.17.2	E16.10	Supply and deliver 1kVA hybrid inverter with 4x100Ah batteries for Aviation lights	No.	2	2				
10.18		The tendered rate shall include full compensation for the installation of the support platform/stand as detailed in the detail specification.							
10.18.1	E16.10	Install support platform/stand for UPS	No.	2	2				
10.18.2	E16.10	Supply and deliver 1kVA hybrid inverter with 4x100Ah batteries for Aviation lights	No.	2	2				
10.19		ACCESS CONTROL AND CCTV SYSTEM							
		Rate to include for the Supply only of the following Plant and Equipment including Delivery, Storage, Quality Assurance and all Necessary Insurance							
10.19.1		PC Amount for Access control system	Prov. Sum	-		R	350 000.00	R	350 000.00
10.19.2		% Makup on Acces control system	%	R 3	350 000				
10.19.3		PC Amount for CCTV system	Prov. Sum	1	ı	R	2 000 000	R	2 000 000.00
10.19.4		% Markup on CCTV System	%	R 20	000 000				
		BULK ELECTRICAL CONNECTION							
10.20		Rate to include the supply of the following Plant and Equipment including Delivery, Storage, Quality Assurance and all necessary insurance.							
10.20.1		PC Amount for 60A 3 Phase Connection from Eskom	Prov. Sum	1	ı	R	55 000.00	R	55 000.00
10.20.2		% Makup on 3Phase connection from Eskom	%	R	55 000				
10.20.3		PC Amount for Infrustructure to get Bulk Connection	Prov. Sum	1	1	R	75 000.00	R	75 000.00
10.20.4		% Makup on Item above	%	R	75 000				
		EARTHING AND LIGHTING PROTECTION							
10.21	PSY1.6	Rate to include the supply of the following Plant and Equipment including Delivery, Storage, Quality Assurance and all necessary insurance.							
10.21.1	E11.17	Earth resistivity tests	No	1	l				
		SUB-TOTAL CARRIED FORWARD							

Employer:	ĵ.	Contractor:	
Witness:		Witness:	







ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
11 LIVI NO	TATMENT CLAUSE	DESCRIPTION brought forward	JIIII	QII	INTE	AMIOUIT
10.21.2	E11.17	Design of a Lightning Protection System (LPS)	No	1		
10.21.3	PSY 1.6	Installation of a structure LPS	Sum	1		
10.21.0	1011.0	Extra over for the supply and installation of additional 6m rod type earth	Julii	'		
10.21.4	E11.17	electrodes including welding/clamps for the connection of earth- termination conductors	No	20		
10.21.5	E11.17	Provision for additional earthing as required	Prov. Sum	1	R 35 000	R 35 000.00
10.21.6	E11.17	Testing of a LPS.	Sum	1		
10.22		STANDBY GENERATOR				
10.22.1		The complete supply, delivery, installation, testing and commissioning of a 15kVA, 380V, standby emergency generator including fuel tank, weather proof & sound proof enclosure	Sum	1		
10.22.2		All necessary electical cabling, DB, etc between standby generator and power supply of Reservoir facility	Sum	1		
		TOTAL FOR SECTION 10 (Carried to Summary)				

Employer:	Contractor:	
Witness:	Witness:	



Contract: JW14302 CONSTRUCTION OF 20 ML CARLSWALD RESERVOIR



Volume 1 Tender and Contract Section C2 Pricing Data

C2.2.1 Summary of Bill of Quantities

SECTION	DESCRIPTION	AMOUNT	
1	Preliminary and General		
2	Site Preparation and Fencing		
3	Roads & Stormwater		
4	Reservoir		
5	Chambers & Boxes		
6	Interconnecting Pipework		
7	Guard House		
8	Telemetry Building		
9	Valve Building		
10	Electrical and C&I		
	Sub-Total 1		
PSA 8.10.1	The above prices are Not Firm. In respect of the total value of work done by approved SMME's at 30% of Sub Total 1 (This total shall include all amounts payable to SMME's, including P&G's) = R		
	Sub-Total 2 [Handling fees for subcontracting = (A) x (B)]		
	Sub-Total 3 = Sub Total 1 + Sub Total 2		
ADD	10% Contingency		
	Sub-Total 4		
ADD	VAT @ 450/		
ADD	VAT @ 15%		

Employer:	Contractor:	
Witness:	Witness:	

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