TENDER COVER PAGE MBD 1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF JOHANNESBURG WATER

BID NUMBER: JW OPS 077/24 CLOSING DATE: 26 JANUARY 2026 CLOSING TIME: 10:30 AM

DESCRIPTION: REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

CIDB REQUIREMENTS: TENDERERS SHOULD HAVE A CONTRACTOR CIDB GRADING OF 7EP OR HIGHER

BRIEFING SESSION	COMPULSORY
BRIEFING DETAILS	DATE AND TIME: 04 DECEMBER 2025 AT 13:00 PM ADDRESS: NORTHERN WASTEWATER TREATMENT WORKS VENUE: ADMINISTRATION BUILDING-MAIN BOARDROOM TENDERS RECEIVED FROM NON-ATTENDED BIDDERS OF A COMPULSORY BRIEFING SESSION WILL NOT BE ACCEPTED
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				
POSTAL ADDRESS				
PHYSICAL ADDRESS				
TELEPHONE NUMBER				
CELLPHONE NUMBER				
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				
TAX COMPLIANCE STATUS	TCS PIN		MAAA No	
OTHER STATUS	COIDA Registration No		CIDB No	

EMPLOYER INFORMATION			
DEPARTMENT	OPERATION	DEPARTMENT	SCM
CONTACT PERSON	MLUNGISI MSANE	CONTACT PERSON	NTHABISENG MATABANE
TELEPHONE NUMBER	011 688 6635	TELEPHONE NUMBER	011 688 1512
E-MAIL ADDRESS	mlungisi.msane@jwater.co.za	E-MAIL ADDRESS	nthabiseng.matabane@jwater.co.za

NOTE: 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
(IF PRACTICAL, ALSO PROVIDE AN ELECTRONIC COPY IN A MEMORY STICK/USB TO ENSURE INFORMATION IS NOT MISSED WHEN TENDERS ARE BEING EVALUATED BY THE BID EVALUATION COMMITTEE – NON-SUBMISSION OF ELECTRONIC COPY AND MEMORY STICK/USB WILL NOT LEAD TO DISQUALIFICATION).

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: ……...

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 ☐ NO 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ NO **IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.**

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

1. TENDER NOTICE AND INVITATION TO TENDER

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

CONTRACT NO. JW OPS 077/24: - REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS.

The tender document will be available in the form of a download from the Johannesburg! Water website (https://www.johannesburgwater.co.za/scm/supply-chain/tenders/all-open-tenders/) starting from 18 November 2025

The Employer is Johannesburg Water.

All tenders and supporting documents must be submitted in a sealed envelope and be placed! in the Tender box on the ground floor of Johannesburg Water by no later than 10:30 am on! 26 JANUARY 2026

Address is as follows:

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

Johannesburg Water (SOC) Ltd is not obliged to accept the lowest or any tender and! Johannesburg Water reserves 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 Johannesburg Water has awarded the contract. Johannesburg Water (SOC) Ltd and the successful tenderer/s will sign the contract agreement forms.

Johannesburg Water SOC Ltd

CONTRACT NO: JW OPS 077/24

REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS
VOLUME 1

TENDER AND CONTRACT

Prepared by
PMU
Turbine Hall
65 Ntemi Piliso Street
Newtown
Johannesburg
2001

V2.0
August 2023

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 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)
1.	**Tender Cover:**				
	Name of Tender	•			
	Contact Person	•			
	Telephone Number	•			
	Central Supplier Database Registration	•	•		
	CIDB Registration Number, minimum required CIDB grading for the tender and Active Status – if applicable	•			
	COIDA Registration Number			•	
	Tax SARS PIN No.	•	•		
	MAAA No. for Tax Compliant Status		•		
2.	**Mandatory Documents at Particular Stage:**				
	CIDB grading of 7EP 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	•			
	Complete and sign BOQ and Summary	•			
3. T2.1	**Administrative Documentation:**				
	Signed Certificate of Authority to Sign	•			
	MBD 1 - Invitation to Bid - Completed and signed	•	•		
	Central Supplier Database Registration	•			
T2.2.4	MBD 4 - Declaration of interest - Completed and signed	•	•		
	MBD 5 - Declaration for procurement above R10 Million (all applicable taxes included) Completed and signed.	•	•		

Employer:		Contractor:	
Witness:		Witness:	

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)
	MBD 6.1 - Preference Points Schedule – Specific Goals and Price Points - Completed and signed.	•			
T2.2.4	MBD 8 - Bidder's past supply chain management practices – Completed and signed.	•	•		
T2.2.4	MBD 9 - Certificate of Independent Bid Determination – Completed and signed.	•	•		
	Municipal Rates and Taxes for the Tenderer - 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 documents.	•	•		
	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 documents.	•	•		
	3-year financial statements (audited where applicable)	•	•		
	Joint Venture Consortium or equivalent Agreement signed by all parties if applicable.	•	•		
	Any qualifications. If "Yes", reference to such qualification/s must be indicated on a cover letter. Please be aware that 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 Required for Criteria 1 – **(Contactable Reference Letters)**	•			
	Documentary Evidence Required for Criteria 2 – **Contactable Reference Letters)**	•			

Employer:		Contractor:	
Witness:		Witness:	

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)
		•			
5.	**Specific Goals:**				
	Documentary Evidence Required for Criteria 1 – Valid BBBEE Certificate issued by SANAS accredited verification agency, DTI/CIPC BBBEE Certificate for Exempted Micro Enterprises or Affidavit sworn under oath, and Medical Certificate from medical doctor or SARS Confirmation of Diagnosis of Disability	•			
	Documentary Evidence Required for Criteria 2 – Proof of municipal account / valid lease agreement, letter from the Ward Council confirming the business address	•			
6.	**Scope of Work**				
	Scope of Work and or Specifications	•			
7.	**Pricing Schedule:**				
	Pricing Schedule/ Bill of Quantities completed in accordance with the award strategy	•			
	Alterations authenticated – Refer to Acknowledgment of Tender Conditions	•			
8.	**Site Information:**				
	Site Information			•	
9.	**Occupational Health, Safety and Environmental Specification**				
	Acknowledgement of SHE Specification & Annexures			•	
10.	**Tender Drawings:**				
	Acknowledgement of Project Tender Drawings			•	
11.	**Terms and Conditions:**				
	General Conditions of Contract	•			
	Tender Data	•			
	Pricing Data	•	•		
12.	**Other Documents**				
	Form of Acceptance (do not complete Form of Acceptance it will be completed by JW official.)			•	
	Public Liability Insurance			•	
	Valid Registration with Compensation for Occupation Injuries and Diseases Act			•	
	Performance Security – where applicable for industrial related services			•	
	Resolution Letter for the Subcontractor (a letter authorizing the person completing the tender to sign on behalf of the company) – if applicable		•		
	Comprehensive Health and Safety Plan (compliance with OHSE Specification - if applicable			•	

Tenderers will be notified of such 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),

Employer:		Contractor:	
Witness:		Witness:	

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.

Signature: _____Date_____

Volumes	Contents	
Number	**Number**	**Heading**
Volume 1	**Part 1: Tender Procedures**	
	T1.1	Tender Data
	Part 2: Returnable Documents	
	T2.1	List of Returnable Documents
	T2.2	Returnable Schedules
	Part 1: Agreement and Contract Data	
	C1.1	Form of Offer and Acceptance
	C1.2	Contract Data
	C1.3	Forms of Securities
	Part 2: Pricing Data	
	C2.1	Pricing Instructions
	C2.2	Bill of Quantities
Volume 2A	**Part 3: Scope of Work**	
	C3	Scope of Work
Volume 2B		Particular Specifications
Volume 2A	**Part 4: Site Information**	
	C4	Site Information
Volume 3		Occupational Health and Safety Specification and Environmental Management Plan
Volume 4		Tender Drawings (If applicable)

Employer:		Contractor:	
Witness:		Witness:	

Johannesburg Water (SOC) Ltd

CONTRACT NO. JW OPS 077/24

REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

VOLUME 1

TENDERING PROCEDURES

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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:** **Part 1: Tendering Procedures** T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data **Part 2: Returnable Documents** T2.1 List of Returnable Documents T2.2 Returnable Schedules, including the Enterprise Declaration Affidavit which may be bound in a separate volume **Volume 1:** **Part 1: Agreement and Contract Data** C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Forms of Securities **Part 2: Pricing Data** C2.1 Pricing Instructions C2.2 Schedule of Rates **Volume 2A** **Part 3: Scope of Work** C3.1 Scope of Work C3.2 Particular Specifications **Part 4: Site Information** C4 Site Information **Volumes 2B:** Generic Specifications **Volume 3:** Occupational Health, Safety and Environmental Specification and Environmental Management Plan

Clause number	Tender Data
C.1.4	The Employer's representative is: Contact Person: Mlungisi Msane Telephone: 011 688 6635 E-mail address: Mlungisi.msane@jwater.co.za The SCM representative is Contact Person:Nthabiseng Matabane Telephone: 011 6881512 E-mail address:nthabiseng.matabane@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 **7EP** 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. 2) Joint ventures are eligible to submit tenders provided that: i) every member of the joint venture is registered with the CIDB; and ii) the combined contractor grading designation calculated in accordance with the CIDB Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an **7EP** class of construction work. Failure to meet to Eligibility criteria and requirements will result in disqualification.
C.2.7	Acceptable or Responsive Bid: a bid that meets the following requirements complies in all respects with the specification and conditions of the bid: a. All the prescribed bid forms have been completed and signed to enable evaluation thereof; b. The bidder complies with all requirements as prescribed by the CSD; the bidder has the necessary capacity and ability to execute the contract.
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 working days before the closing time stated in the foregoing notice and clause C.2.15.1"
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."

Clause number	Tender Data
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 on 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. Corrections may not be made using correction fluid, correction tape or the like, bid received contrary to this will be disqualified.
C.2.12.1	Replace Contents Alternative offers will not be permitted.
C.2.12.2	Failure to complete bid amount on the form of offer and sign 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,

Clause number	Tender Data
	(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 bidder 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 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. Clarification session(s) shall be held with Tenderer where there is pricing discrepancies, errors are highlighted and identified corrections are explained. Tenderer is afforded an opportunity to provide clarification, accept or reject identified corrections in writing. (i) In the event that the Tenderer accepts identified corrections, JW will proceed with evaluation. (ii) In the event that the Tenderer rejects the identified correction(s), JW must review the Tenderer's motivation and risks associated with the proposed change. This is not an opportunity for Tenderers to change the bid offer. A bidder that does not agree to the above will be disqualified. 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. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the JW request, or fails to attend any meeting in which it has been formally invited to clarify any issue, the tender offer will be regarded as non-responsive.

Clause number	Tender Data
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*.
MC.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: 1) Valid SARS Compliance status Pin for Tenders issued by the South African Revenue Services. 2) Proof of CSD registration i.e. MA xxxxxxxx number 3) A Certificate of Contractor Registration issued by the CIDB. 4) where the tendered amount inclusive of VAT exceeds R 10 million: i. 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; ii. 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. 5) 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.

Clause number	Tender Data
	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. 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** Accept that no Tenderer shall make any attempt either directly or indirectly to canvass any of the Employers officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon. No Tenderer shall make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders." ."
C.2.25	Add the following new clause: **Prohibitions on awards to persons in service of the state** Accept that the Employer is prohibited to award a tender to a person - a) who is in the service of the state; or b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or c) a person who is an advisor or consultant contracted with the municipality or municipal entity. "In the service of the state" means to be - i) a member of:- • any municipal council; • any provincial legislature; or • the National Assembly or the National Council of Provinces; ii) a member of the board of directors of any municipal entity; iii) an official of any municipality or municipal entity; iv) an employee of any national or provincial department; v) provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); vi) a member of the accounting authority of any national or provincial public entity; or vii) an employee of Parliament or a provincial legislature."

Clause number	Tender Data
	In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in Section T2.1 must be completed.
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. In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 – Returnable Documents must be completed in full and signed."
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) and other documents that require completion and signatures that do not have a bearing on functionality, specific goals and price. Bidders 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 bidder did not submit the required documentation, the tenderer upon submitting the municipal statement, lease agreement or letter from ward councillor 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. The tenderer will not be offered an opportunity to complete and sign certificate of authority.
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	Tenderer to complete, sign and return MBD6.1 with the tender submission. Tenderer to claim the points in the space provided and submit documentary evidence to support the points claimed for specific goals.

Mandatory

Description		Complied	
		Yes	**No**
1	Attended the compulsory briefing meeting		
2	Tenderer must be registered as an Electrical Contractor with the Department of Employment and Labour and must submit certified copy of valid proof of their registration as an Electrical Contractor with the Department of Employment and Labour. **The certified copy of registration certificate/letter (proof) must be submitted together with the tender Document.**		
3	The tenderer must have active CIDB Grading of 7EP or Higher as at evaluation stage.		
4	Completed and signed Form of Offer		

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

Administrative

Description				Complied	
No	**Reference to Tender Document**	**Description**	**Requirement**	**Yes**	**No**
1.	MBD 1	Invitation to Bid Form	Complete and submit complete and signed MBD 1 Form.		
2.	CSD	Central Supplier Database Registration	Provide proof of CSD registration.		
3.	MBD 4	Declaration of Interest	Complete and submit complete and signed MBD 4 Form.		
4.	MBD 5	Declaration of Procurement Above R10m (All Applicable Taxes Included)	Complete and submit complete and signed MBD 5 Form.		
5	MBD 6.1	Preference Points Claim in Terms of The Preferential Procurement Regulations 2022	Complete and submit complete and signed MBD 6.1 Form.		
6.	MBD 8	Declaration of Bidder's Past Supply Chain Management Practices	Complete and submit complete and signed MBD 8 Form.		

7.	MBD 9.	Certificate of Independent Bid Determination	Complete and submit complete and signed MBD 9 Form.		
9.	Annexure – Proof of Specific Goals	Valid BBBEE Certificate or certified copy thereof or a valid sworn affidavit			
10.	Annexure	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).			
11.	Annexure	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).			
12.	Annexure	Joint Venture Agreement signed by all parties (where applicable).			

Refer to clause C.2.28.

Functionality

CRITERIA NO #	CRITERIA	EVIDENCE	SUB-CRITERIA/CLAUSE	WEIGHTING	SCORE
1.	**Company's Experience** The Tenderer (Company) is required to demonstrate experience in installations/repairs/ refurbishments/maintenance of low and medium-voltage electrical infrastructure or equipment. (**Refer to section 12.2.4 under technical requirements**)	The Tenderer (Company) must provide relevant reference letters with proof that they have executed and successfully completed the required works (projects) as outlined in Criteria 1. *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. 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 and restriction from participating in any future government tender.*	**Total Number of successfully completed projects with respect to relevant experience.**	50	
			Less than two (2) projects		**0**
			Two (2) to four (4) projects		**30**
			More than 4 projects		50
2.	**Financial Capacity**	The Tenderer (Company) must submit project reference letter(s) as	**Total combined rand value of successfully completed project(s) in relation to the relevant scope of work**	50	

	The Tenderer (Company) to demonstrate successful completion of the projects to the total minimum value **R 15 million in related scope of work**.	proof of the total rand value(s) and scope(s) of works of the project(s) that were successfully completed by the Tenderer in relation to the relevant scope of work.	Total rand value of all projects is below R15 million		0
			Total combined rand value of completed projects is R15 million or above but less than R20 million		30
			Total combined rand value of completed projects is R20 million or above.		50
MINIMUM QUALIFYING SCORE				**60**	
TOTAL				**100**	
Tenderers must obtain a minimum of 60 points for functionality in order to qualify for further evaluation.					

Note: It is the responsibility of the Tenderer to ensure that their listed referees are contactable. Johannesburg Water will conduct reference checks with the referees of the recommended Tenderer. Each referee will be given five (5) working days from the date of request by Johannesburg Water to confirm, in writing, the information provided in the reference letter. Failure by the referee to provide confirmation within the stipulated timeframe will result in the Tenderer not being awarded points for contactable references.

Note: This reference letter must be completed by the referee/previous client of the tenderer and included in the tender submission. Appointment letters from the client outlining the scope of work for the contractor, either main contractor or sub-contractor. The quality of works must be certified by the client's Engineer. 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. All Subcontracted work will be verified with the relevant client. If Tenderer was subcontracted reference letters submitted must be accompanied with reference letters and completion certificate from the main contractors.

12.2.4 The tenderer (Company) is required to demonstrate experience and prove financial capacity where implementation of projects in

the biggest industries responsible for the use of electro-mechanical equipment, such as pumps, motors, screens, belt presses, bioreactors, and digesters, spans a range of sectors. These industries rely on such equipment for processes involving fluid movement, solid-liquid separation, biological processing, and material handling. Below is a categorization by industry:

No	Industry
1	Water & Wastewater Treatment
2	Chemical Manufacturing
3	Mining & Metallurgy
4	Food & Beverage
5	Pharmaceutical & Biotechnology
6	Pulp & Paper
7	Agriculture & Irrigation
8	Environmental Engineering
9	Power Generation and Distribution

C.3.11.2 & C.3.11.3	The procedure for the evaluation of responsive tenders is Method 2 (Financial Offer and Specific Goals): **Award and Allocation Strategy:**

AWARD STRATEGY	The awarding of this contract will follow a structured approach that ensures fairness, risk mitigation, and continuity of service delivery. Johannesburg Water (JW) aims to award the tender to the highest preference-ranking tenderer per Region based on price and specific goals. To minimise operational risks, JW intends to appoint multiple contractors. This approach ensures that contractor has sufficient capacity to deliver and handle the workload, preventing service disruptions. • Tenderers will only be awarded one Region irrespective of being the highest preference-ranking Tenderer in other Regions, unless Johannesburg Water cannot award a certain Region to other Tenderer in which case, Johannesburg Water can then award more than one Region to a Tenderer. • Tenderers are therefore requested to rank their preferred Region from region 1-2. Please refer to Pricing Schedule. • Tenderers will be considered for the Region tendered for and ranked. • Allocation to a Region in cases where the Tenderer is the highest preference-ranking Tender will be based on the preferred Region provided by the tenderer under-pricing schedule. • Please refer to Allocation Strategy for the Objective criteria: Johannesburg Water reserves the right to award a Region to a Tenderer that is not the highest preference-ranking Tenderer if the highest preference-ranking Tenderer has been awarded another Region.
ALLOCATION STRATEGY	The awarding of this contract will follow a structured approach that ensures fairness, risk mitigation, and continuity of service delivery. Johannesburg Water (JW) aims to award the tender to the highest preference-ranking tenderer per Region based on price and specific goals.

Objective Criteria: To minimise operational risks, JW intends to appoint multiple contractors. This approach ensures that contractor has sufficient capacity to deliver and handle the workload, preventing service disruptions.

The allocation of a Region to the highest preference-ranking Tenderer will be informed by considerations of cost-effectiveness and, where applicable, the Region(s) indicated by the Tenderer in their pricing schedule.

1. Award Structure & Allocation strategy

1. The scope of work is divided into two Regions:

o Both Regions has a similar scope of work

2. Bidders may tender for all regions but must indicate their preferred group for award purposes.

3. A single bidder cannot be awarded more than one Region to mitigate risk and ensure work is distributed among multiple service providers unless Johannesburg Water cannot award a certain Region to other Tenderer in which case, Johannesburg Water can then award more than one Region to a Tenderer.

2. Reallocation of Work in Case of Non-Performance

If an awarded service provider fails to perform, the work will be reallocated as follows:

Scenario 1: Non-Performance by the tenderer in a Region

- The remaining awarded service provider in the other Region will be approached to negotiate undertaking the work at their original tendered and “awarded” rates.
- If the service provider declines or lacks capacity, or JW deems it necessary, the work may be put through a new procurement process or emergency procurement.

3. Applicable Rates for Reallocated Work

- Work that is reallocated to an existing awarded service provider will be executed at their original tendered or ”awarded” rates to ensure fairness.
- If a new procurement process is required, new pricing will be determined through a competitive process.

4. Contractual Obligations & Performance Monitoring

- The awarded service provider’s failure to perform will be formally documented

	and may lead to contract termination as per the tender conditions. Regular performance reviews will be conducted to mitigate risk and allow for proactive intervention before reallocation is necessary.

1. APPLICATION OF THE PREFERRENCE POINTS SCORING SYSTEM

The following preference point systems are applicable to all bids:

- The 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- If unclear, any preference points scoring may be included and the lowest acceptable tender will be used to determine the preference points to be used for the evaluation. Where the lowest acceptable tender is below R50 million, the 80/20 preference point system must be used and if the lowest acceptable tender is above R50 million, the 90/10 preference point system must be used.
- The Specific Goals for the tender will be stated in MBD 6.1. In MBD 6.1, the tenderer must indicate how many points they are claiming for each Specific Goal and must submit all the required supporting documentation for the points to be verified and awarded by JW. The BEC will evaluate the submitted supporting documentation and confirm Specific Goal points claimed by the tenderer. Specific goals to be allocated by the BEC will depend on verification documentation submitted.
- Only tenderers that have completed and signed MBD_6.1 and submitted applicable verification documents will be allocated Specific Goal points for preferencing.

(a) The value of this bid is estimated to exceed / below R50 000 000 (all applicable taxes included) and therefore the 90/10 or 80/20 preference point system shall be applicable.

(b) Preference points for this bid shall be awarded for:

Price; and

Specific Goals.

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

DESCRIPTION	POINTS	POINTS
PRICE	90	80
SPECIFIC GOALS	10	20
Total points for Price and Specific Goals must not exceed	**100**	**100**

(d) Failure on the part of a bidder to submit proof of specific goals points claimed in MBD_6.1 will not result in disqualification but will result in points not being awarded for Specific Goals.

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 must 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:

V. 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.

Locality:

VI. 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 or townships.

Qualifying Small Enterprises (QSE)

VII. Promotion of procurement from QSE's that are black owned.

Exempted Micro Enterprises (EME):

VIII. Promotion of procurement from EME's that are black own.

SUB-CONTRACTING:

Promotion of sub-contracting a Historically Disadvantaged Individuals (HDI) company.

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.,

Table 1:

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points allocated (80/20 system)
Businesses located withing the boundaries of Gauteng Province	5	10
SMME (An EME or QSE) owned by **51% or more Black People**	5	10

The following verification documents must be submitted with the tender document:

SPECIFIC GOALS – ANY ONE OR A COMBINATION OF ANY	MEANS OF VERIFICATION THAT MAY BE SELECTED OR A COMBINATION THEREOF
Businesses located withing the boundaries of Gauteng Province	• Certified copy of a valid BBBEE Certificate issued by SANAS accredited verification agency or DTI/CIPC BBBEE Certificate for Exempted Micro Enterprises or Affidavit sworn under oath, and • Proof of municipal account / valid lease agreement, Valid confirmation letter of lease, letter from the Ward Council confirming the business address.
SMME (An EME or QSE) owned by **51% or more Black People**	• Certified copy of a valid BBBEE certificate issued by SANAS accredited verification agency or DTI / CIPC BBBEE Certificate for Exempted Micro Enterprises or Affidavit sworn under oath.

The following are the requirements for a valid Sworn Affidavit in terms of the BBBEE Sector Codes of Good Practise:

Affidavit Prescribed Formats	Category	Financial Threshold
Generic Enterprises		
	BO QSE	Between R10m and R50m

	BO EME	Less than R10m
Sector Specific Enterprises		
	BO QSE	Between R10m and R50m
	BO EME	Less than R10m
Construction Sector Code		
	EME Contractor	Less than R3m
	BO EME BEP	Less than R1.8m
Financial Sector Code		
	BO QSE	Between R10m and R50m
	BO EME	Less than R10m
Information Communication Technology Sector 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
	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 Sector Code		
	BO QSE	Between R5m and R45m
	BO EME	Less than R5m
Specialised Enterprises		
	BO QSE	Between R10m and R50m
	BO EME	Less than R10m

Note: Sworn affidavit received from tenderer that do not meet the above requirement will not be consider for the allocation of points for specific goals.

Requirements for a valid BBBEE Certificate are as follows:

a) Copy of a certified valid BBBEE certificate (Only Valid BBBEE accredited by SANAS), or a valid Sworn Affidavit issued by the DTIC or the CIPC or in a similar format complying with commissioner of oath Act.
b) Bidders who do NOT qualify as EME's and QSE's as outlined above must submit B-BBEE verification certificates that are issued by an Agency accredited by SANAS.
c) Bidders who fail to submit a certified copy of their valid B-BBEE certificate or valid sworn affidavit or valid DTI / CIPC B-BBEE certificate will score zero points for specific goals.

Valid Sworn Affidavits or certified copies of B-BBEE Certificate must comply with the requirements outlined in the Justices of the Peace and Commissioners of Oaths Act, no 16 of 1963 and its Regulations promulgated in Government Notice GNR 1258 of 21 July 1972 Justices of the Peace and Commissioners of Oaths Act, No. 16 of 1963**. i.e.**

(i) The deponent shall sign the declaration in the presence of the commissioner of oaths (COA).

(ii) Below the deponent's signature the COA shall certify that the deponent has acknowledged that he knows and understands the contents of the declaration and the COA shall state the manner, place, and date of taking the declaration.

(iii) The COA shall sign the declaration and print his full name and business address below his signature; and state his designation and the area for which he holds his appointment, or the office held by him if he holds his appointment ex officio.

(iv) Copy of certified copies will not be accepted.

2. **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.

3. POINTS AWARDED FOR PRICE
THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

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

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

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;
b) Proof of CSD registration ie MA xxxxx number;
c) 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 ---

Johannesburg Water (SOC) Ltd

VOLUME 1

RETURNABLE DOCUMENTS AND SCHEDULES

T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

Document			Page
1. Returnable Schedules required 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
	JW 6.1	Special Subcontracting Conditions	RD.14
	MBD 6.1	Preference points claim form in terms of the preferential procurement regulations	RD.16
			RD.**Error! Bookmark not defined.**
	MBD 4	Declaration of any potential conflict of interest	RD.**Error! Bookmark not defined.**
	MBD 8	Declaration of bidder's past Supply Chain management practices	RD.28
	MBD 5	Declaration for Procurement above R10 Million (VAT Included)	RD.30
	MBD 9	Certificate of independent bid determination	RD.31
T2.1.5	Proposed qualifications		RD.35
T2.1.6	Schedule of the Tenderer's experience		RD.36
T2.1.7	Contactable reference template		RD.37
T2.1.8	Schedule of key personnel		RD.40
T2.1.9	Curriculum vitae of key personnel		RD.42

T2.2 LIST OF RETURNABLE DOCUMENTS

Document		Page
2. Other documents required only for tender evaluation purposes		
T2.2.1	Certificate of Contractor Registration issued by the Construction Industry Development Board	RD.46
T2.2.2	SARS Tax Compliance Status Pin and Proof of CSD registration i.e. MA xxxxxxxxxx number	RD.47

T2.3 LIST OF RETURNABLE SCHEDULES

Document		Page
3. Returnable Schedules that will be incorporated into the contract		
T2.3.1	Imported content: forward exchange cover for imported goods	RD.49

T2.4 LIST OF RETURNABLE SCHEDULES

Document		Page
4. Other documents that will be incorporated into the contract		
T2.4.1	JW 6.4 Returnable Annexure A – SHE Acknowledgment Form	RD.52

Document		Page
C1.1	**FORM OF OFFER AND ACCEPTANCE**	C.1
C1.2	**CONTRACT DATA (PART 2)**	C.5
C1.3	**FORMS OF SECURITIES**	F.1
C2.1	**PRICING DATA**	PD.1
	Bill of Quantities	PD.4-47
	Summary of Bill of Quantities	PD.48

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.

T2.1 LIST OF RETURNABLE DOCUMENTS

Document		Page
1. Returnable Schedules required only for tender evaluation purposes		
T2.1.1	Record of addenda to tender documents	RD.5
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T2.1.3	Compulsory Enterprise Questionnaire	RD.11
T2.1.4	Preferential Procurement	RD.13
T2.1.5	Proposed qualifications	RD.35
T2.1.6	Schedule of the Tenderer's experience	RD.36
T2.1.7	Contactable reference template	RD.37
T2.1.8	Schedule of key personnel	RD.40
T2.1.9	Curriculum vitae of key personnel	RD.42

T2.1.1 Record of Addenda to Tender Documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, 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 space is required.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.1.2 Certificate of Authority

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 PROPRIE-TOR

(I) Certificate For Company

I, ……, chairperson of the Board of Directors of ....., hereby confirm that by resolution of the Board (copy attached) taken on ....., Mr/Ms ....., acting in the capacity of ....., was authorized to sign all documents in connection with the tender for Contract No. JW077/24 and any contract resulting from it on behalf of the company.

Chairman: .....

As Witnesses: 1.....

2.....

Date: .....

(II) Certificate For Close Corporation

We, the undersigned, being the key members in the business trading as .... hereby authorize Mr/Ms …….... , acting in the capacity of ....., to sign all documents in connection 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 members upon whom rests the direction of the affairs of the Close Corporation as a whole.

(III) Certificate For Partnership

We, the undersigned, being the key partners in the business trading as,

.....……., hereby authorize Mr/Ms .....…… ,

acting in the capacity of ……... , to sign all documents in connection

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.

(IV) Certificate For Joint Venture

This Returnable Schedule is to be completed by joint ventures.

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

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
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.

(V) 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: **.....**

T2.1.3 Compulsory Enterprise Questionnaire

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise: . . . . . .

Section 2: VAT registration number, if any: . . . . . .

Section 3: CIDB registration number, if any: . . . . . .

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

***** Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number . . . . . .

Close corporation number . . . . . .

Proof of CSD registration ie MA xxxxxxxxx number. . . . . .

SARS Tax Compliance status Pin number . . . . . .

Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- ☐ a member of any municipal council
- ☐ a member of any provincial legislature
- ☐ a member of the National Assembly or the National Council of Province
- ☐ a member of the board of directors of any municipal entity
- ☐ an official of any municipality or municipal entity
- ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- ☐ a member of an accounting authority of any national or provincial public entity
- ☐ an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- ☐ a member of any municipal council
- ☐ a member of any provincial legislature
- ☐ a member of the National Assembly or the National Council of Province
- ☐ a member of the board of directors of any municipal entity
- ☐ an official of any municipality or municipal entity
- ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- ☐ a member of an accounting authority of any national or provincial public entity
- ☐ an employee of Parliament or a provincial legislature

Name of spouse, child or parent	**Name of institution, public office, board or organ of state and position held**	**Status of service (tick appropriate column)**	
		Current	**Within last 12 months**

*insert separate page if necessary

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

i) authorizes the Employer to verify the tax compliance status from the South African Revenue Services that my / our tax matters are in order;

ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;

iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and

iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed ..... Date _____

Name ..... Position _____

Enterprise name .....

T2.1.4 Preferential Procurement

Forms for Completion by the Tenderer included in this section are:

Form No.	Form Title	Description	Page
JW6.1	Special Conditions	Sub-contracting and Skills Transfer	RD.14
MBD 6.1	Empowerment and Preferential Procurement	Procedures and adjudication criteria for the information of the Tenderer	RD.16
MBD 4	Declaration of any potential Conflict of Interest	Form to be completed by the Tenderer	RD.**Error! Bookmark not defined.**
MBD 8	Declaration of bidder's past supply chain management practices	Form to be completed by the Tenderer	RD.28
MBD 5	Declaration for Procurement above R10 Million (VAT Included)	Form to be completed by the Tenderer	RD.30
MBD 9	Certificate of Independent Bid Determination	Form to be completed by the Tenderer	RD.31

Note:

All information supplied must be current and valid. Proposed or imminent changes to a Tenderer's status may be mentioned but the declarations must reflect current circumstances.

JW 6.1 (b) SPECIAL CONDITIONS

The successful Tenderer must therefore subcontract a minimum of **0%** of the value of this contract to an entity(s) described below. 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% black owned by black people;
- An EME of QSE which is at least 51% owned by black people who are youth;
- An EME of QSE which is at least 51% owned by people who are 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 veteran;
- an EME or QSE.

1. Subcontractors must be chosen from National Treasury's Central Supplier Database which can be accessed on National Treasury's website.

2. A subcontracting agreement between main contractor and the subcontractor shall be submitted to JW upon appointment and must include minimum information below.
    - Name of sub-contractor and BBBEE status
    - Area and location of project
    - Scope of work issued to the sub-contractor
    - Value of the work issued including P&G's (auditable)
    - Assistance provided to the sub-contractor e.g. acquisition of materials, machinery and tools
    - Skills transfer plan

3. The successful contractor must submit periodic SMME reports to the Project Manager as follows:
    - Name of sub-contractor and BBBEE status
    - Area and location of project
    - Scope of work issued to the sub-contractor
    - Value of the work issued (auditable)
    - Monthly payments made to the subcontractor (auditable)

- Assistance provided to the sub-contractor e.g. acquisition of materials, machinery and tools
- Performance of the sub-contractor

4. Upon completion of the project, the contractor is required to provide a final report to JW on skills acquired, description and value of work performed as well as their overall performance.

(The above information will assist the sub-contractor to improve their CIDB grading)

Skills transfer

It is an absolute requirement that the successful tenderer empowers the appointed sub-contractor/s through the transfer of skills. In this regard a skills transfer plan must be submitted prior to commencement of each work package.

I / we representing the tenderer hereunder agree to the above conditions.

Name of Tenderer:_____

Authorised signatory:_____ **Date**:_____

Tenderers who **FAIL** to complete and sign schedule JW6.1 will not be evaluated further

MBD 6.1

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

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

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

---

1. GENERAL CONDITIONS

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

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

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

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

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

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

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

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

a) Price; and
b) Specific Goals.

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

The maximum points for this tender are allocated as follows:

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

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

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

2. DEFINITIONS

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

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

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

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

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1 POINTS AWARDED FOR PRICE

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

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

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

1.1.1. POINTS AWARDED FOR PRICE

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

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points allocated (80/20 system)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Businesses located withing the boundaries of Gauteng Province	5	10		
SMME (An EME or QSE) owned by **51% or more Black People**	5	10		
Total	**10**	**20**		

5. DECLARATION WITH REGARD TO COMPANY/FIRM

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 corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

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

i) The information furnished is true and correct;

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

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

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

(a) disqualify the person from the tendering process;

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

(c) cancel the contract and claim any damages which it has suf-

fered as a result of having to make less favourable arrangements due to such cancellation;

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

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

……..
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: ……
DATE: ……

ADDRESS: ……
……
……
……

1. SUB-CONTRACTING

1.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	

1.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted_____(minimum of 11%)
ii) The name of the sub-contractor(s):

---

iii) The black sharehold 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 with an enterprise in terms of Preferential Procurement Regulations,2022:

Designated Group: An EME or QSE which is at last 51% owned by:	**EME** √	**QSE** √
Black people		
Black people who are youth		
People who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		

Any EME		
Any QSE		

2. DECLARATION WITH REGARD TO COMPANY/FIRM

2.1 Name of company/firm: ……

2.2 VAT number registration number: ……..

2.3 Company registration number: ……

2.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

2.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

……
……
……
……
……..

2.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

[*TICK APPLICABLE BOX*]

2.7 **MUNICIPAL INFORMATION**

Municipality where business is situated: .....

Registered Account Number: .....

Stand Number: ……..

2.8 Total number of years the company/firm has been in business: ……

2.9 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 fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

(f) disqualify the person from the bidding process;

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

(h) 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;

(i) 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

(j) forward the matter for criminal prosecution.

WITNESSES 1. …….. 2. ……	…… SIGNATURE(S) OF BIDDERS(S) DATE: …….. ADDRESS …….. …….. ……..

.

MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state[1].

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

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

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

3.2 Identity Number…….

3.3 Position occupied in the Company (director, trustee, hareholder[2]):……..

3.4 Company Registration Number: …….

3.5 Tax Reference Number:……

3.6 VAT Registration Number: ……

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

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

3.8.1 If yes, furnish particulars. ……

……..

[1]MSCM Regulations: "in the service of the state" means to be –
(a) a member of –
  (i) any municipal council;
  (ii) any provincial legislature; or
  (iii) the national Assembly or the national Council of provinces;

(b) a member of the board of directors of any municipal entity;
(c) an official of any municipality or municipal entity;
(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
(e) a member of the accounting authority of any national or provincial public entity; or
(f) an employee of Parliament or a provincial legislature.

[2] Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

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

3.9.1 If yes, furnish particulars……..……..
……

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? …… YES / NO

3.10.1 If yes, furnish particulars……
……..

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? YES / NO

3.11.1 If yes, furnish particulars
……
…….....

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

3.12.1 If yes, furnish particulars…….
…….

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

3.13.1 If yes, furnish particulars…….
……

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

3.14.1 If yes, furnish particulars:……..
……..

**Tenderers are encouraged to truthfully declare all other company interests they may have, with specific reference to Question 3.14, of which if not fully completed, might lead to disqualification. Tenderers are encouraged to utilise the CIPC bizportal (www.bizportal.gov.za) , free registration to check the companies for which a director is a director for. This can be done by inserting an ID number for the director tendering and the portal will show all companies, whether active or not.*

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

Full Name	Identity Number	State Employee Number

…….. ……..
Signature **Date**

…… ……
Capacity **Name of Bidder**

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.

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's database 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 partem* rule was applied).	Yes □	No □
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **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 facsimile number (012) 3265445.**	Yes □	No □
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes □	No □
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes □	No □
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)……

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

……...	**……..**
Signature	**Date**
…….	**……..**
Position	**Name of Bidder**

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 you 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. If the bidder is not required by law to prepare annual financial statements for auditing, they shall be required to furnish their Annual Financial Statements -

i.for the past three years , or
ii. since their establishment if established during the past three years

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**

2.1 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.

2.2 If yes, provide particulars.

……

…….

3 Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? **YES / NO**

3.1 If yes, furnish particulars

…….

…….

4 Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic? **YES / NO**

4.1 If yes, furnish particulars

……..

……..

CERTIFICATION

I, THE UNDERSIGNED (NAME)
……

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE

FALSE.

…….. ……..
Signature Date

…… ……
Position Name of Bidder

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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

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

3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

   a. take all reasonable steps to prevent such abuse;

   b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and

   c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD9) must be completed and submitted with the bid:

[1] **Includes price quotations, advertised competitive bids, limited bids and proposals.**

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

MBD 9 CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

_____
(Bid Number and Description) in response to the invitation for the bid made by:

_____
(Name of Municipality / Municipal Entity) do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____that:
(Name of Bidder)

1. I have read, and I understand the contents of this Certificate;

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

   (a) has been requested to submit a bid in response to this bid invitation;
   (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.

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

   (a) prices;
   (b) geographical area where product or service will be rendered (market allocation)
   (c) methods, factors or formulas used to calculate prices;
   (d) the intention or decision to submit or not to submit, a bid;

[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.**

(e) the submission of a bid which does not meet the specifications and conditions of the bid; or
(f) bidding with the intention not to win the bid.

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

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

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

…… …… ……
Signature Date

…… …… ……
Position Name of Bidder

T2.1.5 Proposed Amendments and Qualifications

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such qualifications in a covering letter to his tender and reference such letter in this schedule.

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 .....

T2.1.6 Schedule of the Tenderer's Experience

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	EMPLOYER'S AGENT OR REPRESENTATIVE: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED

Signed ..... Date .....

Name ..... Position .....

Tenderer	

Contactable Reference Template

To Johannesburg Water (SOC) Ltd

I, the undersigned being duly authorised to do so, hereby furnish a reference to Johannesburg Water relative to the **Repair and maintenance of low and medium voltage electrical infrastructure of bulk wastewater works on an as and when required for a period of 36 months.**

Name of Tenderer: …….

Description or nature of work provided in respect of scope of work.
……
……
……
……..

Project value: ……..

Name of authorised 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.*

Contactable Reference Template

To Johannesburg Water (SOC) Ltd

I, the undersigned being duly authorised to do so, hereby furnish a reference to Johannesburg Water relative to the **Repair and maintenance of low and medium voltage electrical infrastructure of bulk wastewater works on an as and when required for a period of 36 months.**

Name of Tenderer: …….

Description or nature of work provided in respect of scope of work.

……

……

……

…….

Project value: ……..……..

Name of authorised 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.*

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Name of Tenderer: ……

Description or nature of work provided in respect of scope of work.
……
……
……
……..

Project value: ……..……..

Name of authorised 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.*

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Name of Tenderer: …….

Description or nature of work provided in respect of scope of work.
……
……
……
……..

Project value: ……..

Name of authorised 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.*

T2.1.8 Schedule of 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.

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS					
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL 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: …….....

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

T2.1.9 Curriculum Vitae of Key Personnel

Provide separate forms for each position listed in Form: Key Personnel

Artisan

Name:	**Date of birth:**
Profession:	**Nationality:**
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	**Total Months Relevant Experience:**
Employment Record:	

Experience Record Pertinent to Required service:

START DATE dd month year	End DATE dd month year	ROLE WHICH PROVES RELEVANT EXPERIENCE

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

.....…… …….....

Signature of person named in the schedule *Date*

Artisan

Name:	**Date of birth:**
Profession:	**Nationality:**
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	**Total Months Relevant Experience:**
Employment Record:	

Experience Record Pertinent to Required service:

START DATE dd month year	End DATE dd month year	ROLE WHICH PROVES RELEVANT EXPERIENCE

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

.....…… …….....
Signature of person named in the schedule *Date*

Artisan

Name:	**Date of birth:**
Profession:	**Nationality:**
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	**Total Months Relevant Experience:**
Employment Record:	

Experience Record Pertinent to Required service:

START DATE dd month year	End DATE dd month year	ROLE WHICH PROVES RELEVANT EXPERIENCE

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

.....…… …….....

Signature of person named in the schedule *Date*

T2.2 LIST OF RETURNABLE DOCUMENTS

Document		Page
2. Other documents required only for tender evaluation purposes		
T2.2.1	Certificate of Contractor Registration issued by the Construction Industry Development Board	RD.46
T2.2.2	SARS Tax Compliance Status Pin and Proof of CSD registration i.e. MA xxxxxxxxxx number	RD.47

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)

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 CSD registration i.e. MA xxxxxxxxxx number.

SIGNATURE:.....…… DATE: …….....

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

T2.3 LIST OF RETURNABLE SCHEDULES

Document **Page**

3. Returnable Schedules that will be incorporated into the contract

T2.3.1 Imported content sheet: forward exchange cover for imported goods RD.49

T2.3.1 Imported Content Sheet: Forward Exchange Cover for Imported Goods

The Tenderer shall, in the attached schedule, for each item which a price is tendered, state the item number as it appears in the Schedule of Quantities, a brief description of the item, the country of origin, the value of the imported content of all goods comprising that item, the number of items for which he requires forward exchange cover, and the total amount for which forward exchange cover will be required.

Each Part of the Schedule of Quantities must be dealt with separately.

In the event of components being imported from more than one country, a separate entry shall be made for each country.

The Tenderer shall state the applicable rate(s) for the relevant country(ies) as at the date seven days prior to the closing date for the receipt of tenders.

Exchange rate(s) as at ..... (*insert date*)

Country	Exchange Rate

SIGNED ON BEHALF OF TENDERER : .....

NAME (in print) : .....

DATE : .....

Equipment Schedule

Item No. in SQ	Brief Description	Country of Origin	Value of Imported Content	No. of Items	Amount (R)
				Quantity Scheduled	
				Total Value of Imported Content	

T2.4 LIST OF RETURNABLE SCHEDULES

Document		Page
4. Other documents that will be incorporated into the contract		
T2.4.1	JW 6.4 Returnable Annexure A – SHE Acknowledgment form	RD. 52
T2.4.2	JW 6.5 Returnable Annexure B: Acknowledgement of Tender Drawings	RD. **Error! Bookmark not defined.**

T2.4.1 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 2)
- Annexure 1: COVID-19 Guidelines
- Annexure 2: Baseline Risk Assessment and COVID-19 Risk Assessment
- Annexure 3: Medical Screening Policy
- Annexure 4: Contractor Competency Evaluation
- Annexure 5: Sign off form
- Annexure 6: Environmental Management Plan
- Annexure 7: Environmental Specification

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*	

15. SPECIAL CONDITIONS OF CONTRACT

GENERAL: **NB:** The attention of the tenderer is drawn to the fact that General Conditions of Contract shall apply, where applicable, to this contract.

1. DEFINITIONS:

1.1 That "Johannesburg Water (SOC) Ltd" shall herein after being referred to as "JW".

1.2 The "Managing Director" shall mean the Managing Director: Johannesburg Water (SOC) Ltd or his authorised representative.

1.3 "Vat" shall mean Value Added Tax in terms of the Value Added Tax Act 89 of 1991 as amended.

1.4 "Manager" shall mean the JW Regional Maintenance Manager or his authorised representative.

2. PRICE:

2.1 All prices shall exclude Value Added Tax at the standard rate as gazetted from time to time by the Minister of Finance in terms of the Value Added Tax Act 89 of 1991 as amended.

2.2 All alterations must be authenticated with a signature or initialled by the authorised signatory. Failure to comply with this requirement will render the tender liable for rejection on grounds of being incomplete.

2.3 The rates quoted on the BoQ must be inclusive of all the costs for the necessary labour and technical specialists to complete the work satisfactorily as per Specifications, and all other expenses incidental to the completion of scope of work.

3. CONTRACT PRICE ADJUSTMENT

3.1 The prices for items quoted for must be firm with escalations already factored in.

4. SURETY BOND:

4.1 No surety bond shall be required in terms of this contract.

5. COMPLIANCE WITH LEGISLATION:

5.1 The Contractor shall comply with all Municipal By-laws, and any other Laws, Regulations or Ordinances and shall give all notices and pay all fees required by the provisions of such By-laws and Regulations Specified therein.

5.2 The Contractor shall comply with all the requirements prescribed in the technical specification, unless otherwise stated.

6. SAFETY:

6.1 Without derogation from the generality of Clause 5.1, or from any other Provision of this contract, the Contractor shall comply in all respects with the safety and other requirements of the Occupational Health Safety Act 85 of 1993 and the regulations applicable.

6.2

	6.3	Successful tenderers will be required to compile and submit a Health and Safety File for approval by the JW OHS Department prior to commencement of the contract. The Contractor will be required to follow site-specific Health, Safety and Environmental rules.
7. INSURANCE AND INDEMNIFICATION:	7.1	In addition to any insurance required to be held by the Contractor in terms of the Occupational Injuries and Diseases Act no.130 of 1993, the Contractor must be fully insured against all accidents, loss or damage arising out of the conditions or operation of the vehicles or execution of any work including all third-party risks. The Contractor hereby agrees to indemnify JW against all claims by third Parties or the Contractor's own employees resulting from the operations carried out by the Contractor under this contract up until the end of the contract.
	7.2	A current certificate of good standing in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 must be furnished by the Contractor within 21 days of notification of acceptance of the tender. Proof of renewal or extension of insurance cover must be furnished by the Contractor whenever required by JW.
	7.3	The Contractor shall be liable for any damages or injury of whatever nature caused directly or indirectly as a result of his operations, to any of JW's or Municipal Government or Private Property or to his own vehicles and personnel**.**
	7.4	Any insurance required by the tenderer in respect of the units under this contract must be included in the rental charge.
8. REMEDIES, BREACH, WHOLE AGREEMENT, WAIVER VARIATION AND INDULGENCES:	8.1	If the supplier or any person employed or associated with him or in the case of a Company, a Director or shareholder or person similarly associated with such Company, either directly or indirectly gives or offers to give any gratuity, reward or commission or other bribe to any person in the employ of JW this contract shall be avoidable at the instance of JW.
	8.2	If the Contractor has not complied with the Managing Director's requirements or if he is in breach of any of the Conditions of this contract and:
	8.2.1	Fails to remedy such breach within 2 (two) days of receipt of written notice requiring it to do so (or if not reasonably possible to remedy the breach within 2 (two) days), within such further period as may be reasonable in the circumstances, provided that the Contractor furnishes evidence within the period of 2 (two) days reasonably satisfactory to JW, that it has taken whatever steps are available to it to commence remedying the breach, then the JW shall be entitled, without notice and in addition to any other remedy available to it at law or under this agreement, including obtaining an interdict, to cancel this agreement or to claim specific performance of any obligation whether or not the due date for performance has arrived, in either event without prejudice to JW's right to claim damages. Should JW elect to cancel the contract then and in such instance a certificate presented by the Managing Director of JW shall constitute proof of the contractor's indebtedness to JW.

8.2.2 This agreement constitutes the entire agreement between the parties relating to the matter hereof.

8.3 No amendment or consensual cancellation of this agreement or any provision or term hereof or of any agreement, bill of exchange or other document issued or executed pursuant to or in terms of this agreement and no settlement of any dispute arising under this agreement and no extension of the time, waiver or

8.4 relaxation or suspension of any of the provisions or terms of this agreement or of any agreement, bill of exchange or other document issued pursuant to or in terms of this agreement shall be binding unless recorded in a written document signed by the parties. Any such extension, waiver or relaxation or suspension, which is so given or made, shall be strictly construed as relating to the matter in respect whereof it was made or given.

9. DISPUTES:

9.1 In the event of any dispute arising between JW and the Contractor in connection with or arising out of the contract, it shall be referred to the Managing Director of JW who shall state his decision in writing and give notice of the same to the Contractor within 28 days of the dispute having been submitted to the Managing Director of JW. Such decision shall be binding upon the Contractor subject to clause 9.2.

9.2 Should the Contractor be dissatisfied with the decision of the Managing Director he/she may, within 28 days after receiving notice of such decision, require that the issue or issues be referred to a single arbitrator to be agreed upon between the parties or, failing agreement, to be nominated by the Chairman of the Association of Arbitrators and any such reference shall be deemed to be submission to the arbitration of a single arbitrator in terms of the Arbitration Act, 1965. The award of the arbitrator shall be final and binding on both parties.

9.3 Not later than one week after receipt of notice calling for arbitration, JW may give notice to the Contractor that the dispute or disputes be settled by Court of Law having jurisdiction.

10. SCOPE OF CONTRACT:

10.1 The tenderer shall be required to provide the service as outlined in the scope of work for this tender at Bulk Wastewater Treatment Works for a period not exceeding thirty-six (36) months.

11. WARRANTY

11.1 The provisions of this contract shall be subject to the warranties that apply to new parts supplied by the contractor.

11.2 Therefore, if the rectification of a defect in these assets or the replacement of a part is covered by warranty, such rectification/replacement shall be done at no cost to JW.

11.3 The warranty period referred herein Clause 11.1 above, will be for a period of twelve (12) months from the time that the equipment installed at the applicable JW site and is in use.

11.4 Repaired parts shall carry a warranty of six (6) months from the time that the part is installed and commissioned.

11.5 For the equipment that has a run hour meter, the warranty will be equivalent to operational hours as per run hour meter from the time of installation.

12. REQUIREMENTS:	12.1	Only plant/equipment/components/parts complying with the technical specifications are to be offered by the Contractor and accepted by JW for this contract.
	12.2	The tenderer shall be obliged to provide the equipment, tools, and personnel where warranted, at such time and at such place as notified by the Employer's Representative and as more fully set out in the specifications. The tenderer shall ensure that the equipment supplied operate as per the technical specification and to the satisfaction of the Employer's Representative. The tools will include Confined Entry Gear (PPE, Gas detectors, etc.).
	12.3	The successful tenderer will be required within 14 days upon award/appointment to submit a quality management plan (QCP) which shall address, but not limited to, working methods and procedures and other quality management related matters. QCP's specific to the jobs or work packages must also be submitted within 3 days of receiving Purchase Instructions from Johannesburg Water. These job-specific QCP's shall be accompanied by detailed work programme, method statements and procedures. QCP's, programme, method statements and procedures submitted shall be subject to the approval of Johannesburg Water.
	12.4	Before interaction/interface with the existing equipment or plant or before shutdowns, the Contractor will have to make a written application to site management at least 7 days prior to that interaction/interface/shutdown. The said application shall be accompanied by a detailed technical method statement which must be approved by the Employer's Representative before an application is made for the interaction/interface/shutdown.
	12.5	**Qualifications of Artisan- The tenderer is required to submit the following certified copy of qualifications and identity documents for Two (2) key personnel (Electrician) who will be assigned for the execution of the work before site work starts.** **Trade Test Certificates: Electrician trade test or millwright trade test, plus valid ORHVS certificate and valid medium voltage jointing and termination certificate.**
	12.6	**Experience of Artisans - The tenderer must submit CVs of their key personnel describing their relevant work experience with Minimum of Three (3) years' experience in medium voltage electrical work before site work starts.**
13. WORKSHOP FACILITIES:	14.1	If necessary, in this contract, the Service Provider must have workshop facilities fully equipped where equipment will be attended for the duration of the contract. The Service Provider's workshop facilities must be in line with the requirements of Occupational Health and Safety Act and other applicable laws.
14. ADJUDICATION OF TENDERS:	15.1	The highest, lowest or any tender will not necessarily be accepted by JW. JW reserves the right to adjudicate the Tender to its best interest and it is not necessarily intended to award the contract to only one Contractor.
15. ACCEPTANCE OF TENDER:	16.1	A valid and binding contract shall be concluded at the time when the Service Provider receives an official appointment letter and sign letter of acceptance at the offices of JW after the Service Provider where he/she will enter a contract with JW with the term and conditions packaged in this document.
16. PAYMENT:	17.1	Payment on this contract will be as follows:

i) Invoices must be submitted based on the work done and approved by the assigned JW project manager.

ii) The contractor shall submit complete and detailed invoice as per schedule of quantities. Payment will be based on the invoices subject to any adjustment by the assigned Project Manager in respect of errors, penalties or any other claim that JW may have in respect of this contract.

iii) Payment will be made within the payment period as prescribed by the JW Finance Department once the correct invoice with no outstanding information is signed off and processed by the assigned project manager.

iv) Invoices for payment must be submitted under the contractor's name.

17. PENALTIES: 18.1 Instead of exercising its rights in terms of Clause 22 of the General Conditions of Contract, the relevant Manager or his representative may, at his discretion impose the following penalties:

(i) If an offered item of plant is officially requested in writing from the contractor and is not supplied within 3 calendar days of an order to do so, the contractor will incur penalties. For each item of plant not supplied as required, the contractor will incur 15% (fifteen percent) penalties for their total invoice that they will submit for that specific plant. The penalty will be charged from day 3 of non-delivery up until such time that the item of plant required is supplied.

(ii) In all cases where a stoppage has occurred without explanations, the contractor will be required to provide written explanations as to the cause thereof and if in the opinion of the relevant Manager or his/her representative was an unavoidable stoppage.

(iii) The written explanations referred to in clause (ii) must be made in duplicate within 7 days from the day on which the stoppage occurred. If no written explanations are received, the contractor will not be paid as stipulated in clause (iii) for the period of the stoppage. The relevant Manager's decision will be conveyed to the contractor on the duplicate application submitted which must be taken into account on submission of the invoice for that particular scope of work.

19. WORKING HOURS: 19.1 Starting and finishing times will be determined by the relevant Manager on site based on JW's' needs at the time.

20. CESSION: 21.1 During the contract the tenderer shall neither cede, assign, sublet, mortgage, pledge nor in any way encumber the plant, lend or part with possession thereof.

21. FURTHER INFORMATION: 22.1 Should the tenderer have any queries regarding this tender he/she must submit these in writing to Mr Thabiso Thabeng/Mlungisi Msane via email at thabiso.thabeng@jwater.co.za, or Mlungisi.msane@jwater.co.za alternatively call at Tel: 011 510 2602 or 011 688 1776 during office hours from 07:30am to 15:30pm Monday to Friday.

22. NOTICE:

23.1 Any NOTICE or communication required or permitted to be given in terms of this agreement shall be valid and effective only if in writing and may be given in one or more of the following manners:

23.1.1 Sent by prepaid registered post (by airmail if appropriate) in an envelope correctly addressed to it at an address chosen as its *domicilium citandi et executandi to* which post it is delivered, in which event such notice shall be deemed to have been received on the 7th (seventh) business day after posting (unless the contrary is proved); or

23.1.2 Delivered by hand to a responsible person during ordinary business hours at the physical address chosen as its *domicilium citandi et executandi,* in which event such notice shall be deemed to have been received on the day of delivery; or

23.1.3 Sent by telefax to its chosen telefax number, in which event such notice shall be deemed to have been received on the date of dispatch (unless the contrary is proved).

23.2 Notwithstanding anything to the contrary herein contained a written notice or communication received by a party shall be adequate written notice or communication to it notwithstanding that it was not sent to or delivered at its *domicilium citandi et executandi.*

Johannesburg Water (SOC) Ltd

CONTRACT NO. JW OPS 077/24

REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

VOLUME 1

PART 1: AGREEMENT AND CONTRACT DATA

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

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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:

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

By the representative of the Tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the 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

_____

_____

This offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Contractor, whereupon the Contractor becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Contractor _____
(Name and address of organisation)

Name and signature of witness

_____ _____
(Name) (Signature)

Date _____

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

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:

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, pricing schedules (Bill of Quantities) 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 a binding contract between the parties.

FOR EMPLOYER OFFICIAL USE ONLY

Name(s) _____

Capacity _____

For the Employer **Johannesburg Water SOC (Ltd), Turbine Hall, 65 Ntemi Piliso Street, Newtown.**

(Name and address of organisation)

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

Name and signature of witness

(Name) (Signature)

Date

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;
2. 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;
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here; and
4. Any change or addition to the tender documents arising from the above arrangements and recorded here shall also be incorporated into the final draft of the Contract.

1 **Subject**

Details

2 **Subject**

Details

3 **Subject**

Details

4 **Subject**

Details

5 **Subject**

Details

6 **Subject**

Details

7 **Subject**

Details

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

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 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.

For the Contractor:

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Contractor _____
(Name and address of organisation)

Name and signature of witness _____ _____
(Name) (Signature)

Date _____

For the Employer:

Name(s) _____ _____

Capacity _____ _____

For the Employer **Johannesburg Water SOC (Ltd), Turbine Hall, 65 Ntemi Piliso Street, Newtown**
(Name and address of organisation)

Name and signature of witness _____ _____
(Name) (Signature)

Date _____

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

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
1.1.1.13	The Defects Liability Period is 52 weeks from the date of the Certificate of Completion.
1.1.1.14	The Work shall be on an as and when required basis framework for a period of 36 months.
1. 1.1.15	The name of the Employer is Johannesburg Water (SOC) Limited Contact person is Mlungisi Msane
1.2.1.2	The address of the Employer is: Physical: Turbine Hall, 65 Ntemi Piliso Street, Newtown Postal: P.O. Box 61542, Marshalltown, 2107 Tel: 011 688 1776 Email: mlungisi.msane@jwater.co.za
4.4.2	Add the following after this clause: Apart from sub-contractors identified by the Contractor for the execution of certain sections of the Works, subcontractors shall also include SMME's (Small Medium and Micro Enterprises), who are identified from the Local Community for the execution of certain sections of the Works. 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% of the Contract Price shall be subcontracted to SMME's. Where the advised items for subcontracting do not form 30% of the Contract Price, the Contractor shall identify additional works that will be subcontracted to ensure compliance with the minimum subcontracting percentage.
4.10.1	Add the following to this clause: The Contractor shall employ labour from Local Communities (otherwise known as Local Labour), in accordance with the Tender Data, Scope of Work, Site Information, and Specifications. All Local Labour shall be recruited through the Community Liaison Officer (CLO) and/or Labour Desk Officer (LDO). The Contractor remains fully responsible for all Local Labour that are employed for the execution of the Works, as if they were the Contractor's own labour.

Employer:		Contractor:	
Witness:		Witness:	

GCC Clause	Information
4.11.1	Add the following to this clause: Competent Employees shall include, amongst others, the following Key Personnel: • Contracts Manager • Site Agent • Safety Officer • Civil, Mechanical, Electrical and C&I Engineering Senior Foremen The minimum requirements in terms of qualifications and experience of these Key Personnel are listed in **C1.2.1.2.15** (see below).

5.3.1	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). The Employer will require Health and Safety documentation from the Contractor to acquire this permit.
	• Organogram of resources
	• Delegation of Authority (on company letterhead)
	• Subcontract plan / proposal which includes a number of Subcontractors that meet requirements as per conditions of **C1.2.1.2.14**

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.
5.4.2	The Works will be executed on an operational Wastewater Treatment Works. The Treatment Works shall remain operational at all times, except when written permission is granted by the Employer's Agent for any interruption or shutdown. All such interruptions/shutdowns shall be included in the Contractor's Programme.
5.8.1	Starting and finishing times will be determined by the relevant Manager on site based on JW's' needs at the time.
5.8.1	The non-working days are Saturdays and Sundays.

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

GCC Clause	Information
	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.
5.11.1.2	Notwithstanding any other provision of this Contract, the Contractor agrees that there shall be no suspension of the Works due to non-payment by the Employer. The Contractor shall continue to perform the Works as scheduled, regardless of any delays or failures by the Employer to make payments when due.
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.
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 On-demand 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 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
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%. 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 60 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 amount due. Any dissatisfaction in respect of such payment certificate shall be dealt with in terms of Clause 10.2.

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

GCC Clause	Information
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 6.10.4 as amended.
6.10.6.2	Delete Clause 6.10.6.2
6.11	Delete Clause 6.11
7.8.2	**Cost of making good of defects** Amend Clause 7.8.2.1 as follows: In the first line, correct the spelling of 'therefore'.
8.1.1	Add to the end of Clause 8.1.1 the following text: "Although the extent of the Works and the Site are located within the boundaries of the Forest Hills Tower and Pumpstation Site, and the Employer may (or may not) provide security for the Tower Site as a whole, the Contractor shall remain solely responsible for the protection of the Works and the Site".
8.4.1.1	Add to the end of Clause 8.4.1.1 the following text: "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	Add the following clause to 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."
8.6.1.1.2	The value of plant and materials supplied by the Employer to be included in the insurance sum is R 0.00.
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 15% of the Contract Price.

GCC Clause	Information
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 Defects Liability Periods
8.6.1.5	In addition to the insurances required in terms of General Conditions of Contract for Construction Works 2015 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 affected 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. b. The Contractor and the Sub-contractors shall affect 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 affect 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.
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).

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

GCC Clause	Information
10.7.1	The determination of disputes shall be by arbitration.

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 C1.2.1.2.6, C1.2.1.2.14 and the specification highlighted in the Scope of Work, 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 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:
  i. perform the Works internally or through another Contractor; and
  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.

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 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:

i. perform the Works internally or through another Contractor; and

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 meet target participation by local SMME

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 **C1.2.1.2.14**, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope 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 the Scope of Works is 50% of the monetary value by which the achieved monetary value falls short of the target monetary value.

d) Failure to meet the occupational health and safety compliance target

Monthly compliance rating will be calculated for each Contractor as per a formula determined by the Employer focusing on or incorporating outcomes of assurance (e.g. monthly audit), operational (e.g. behavioral based safety inspection) assessments and other requirements, as necessary.

The Employer will impose a penalty value of R20 000,00 per audit report where a Contractor scores below 85%.

The Employer will impose a penalty value of R2 000,00 per occasion where the Contractor scores above 85% but below 93% for two successive months.

e) Failure to meet the Environmental compliance target

Monthly compliance rating will be calculated for each Contractor as per a formula determined by the Employer focusing on or incorporating outcomes of assurance (e.g. monthly audit), operational assessments and other requirements, as necessary.

The Employer will impose a penalty value of R20 000,00 per audit report where a Contractor scores below 85%.

The Employer will impose a penalty value of R2 000,00 per occasion where the Contractor scores above 85% but below 93% for two successive months.

f) Penalties payable

If penalties are payable, they will be processed through a credit note issued by the Contractor.

g) 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.

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. The supporting documents required for SMMEs include but are not limited to the following:

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

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 Contractor must subcontract a minimum of 3% 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.

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 .

1. Subcontractors must be chosen from National Treasury's Central Supplier Database which can be accessed on National Treasury's website.

2. The Contractor will identify subcontracting items or tasks that will meet the subcontracting minimum of 3% of the value of this Contract. In complying with this condition, the following shall be adhered with:
    - 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 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.
    - The Employers Agent may assist with identified items for subcontracting but where these do not form 3% of the Contract Price, the Contractor shall identify additional works that will be subcontracted to ensure compliance with the minimum subcontracting percentage.

- 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.
- 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 3% 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 3% 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.
   - Indicate the remuneration rate of all local labourers (the latest Gazetted labour rates)

- 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 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. The Contractor will be entitled to levy interest on all payments that have been made in this regard, in accordance with the necessary interest payment provisions contained in the General and Special Conditions of Contract.

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 supporting information.

C1.2.1.2.15 Competent Employees

Competent Employees	Qualifications	Experience
Artisan	**Qualifications of Artisan** Trade Test Certificates: Electrician trade test or millwright trade test, plus valid ORHVS certificate and valid medium voltage jointing and termination certificate.	Minimum 3 years' experience. The tenderer must submit CVs of their key personnel describing their relevant work experience in medium voltage electrical work.

C1.2.1.2.16 Tie-in Limitations

The connection of new infrastructure to the existing infrastructure is limited to low-flow periods and subject to prior arrangement and approval by the Client.

C1.2.1.3 Variations to General Conditions of Contract

Add the following Table:

3.2.4	**Employer's Agent for Health and Safety** Replace Clause 3.2.4 with the following:

	'In terms of Clause 1.3.2, all parties to the Contract shall be subject to the relevant requirements of the Construction Regulations 2014 (as amended) of the Occupational Health and Safety Act, Act 85 of 1993 (as amended).' Add the following at the end of the above new replacement Clause 3.2.4: 'Where the Employer is obliged to appoint an Employer's Agent for Health and Safety in terms of the Construction Regulations 2014 (as amended) of the Occupational Health and Safety Act (Act 85 of 1993 as amended), and where such Employer's Agent for Health and Safety has complied with the registration requirements of a Construction Health and Safety Agent as a specified category in terms of section 18 (1) (c) of the Project and Construction Management Professions Act (Act 48 of 2000), the applicable clauses of the latest edition of the "Standard Scope of Services for Construction Health and Safety Agents Registered In Terms Of Section 18(1)(c) of the Project And Construction Management Professions Act (Act No. 48 Of 2000)", including Clauses 2.2.5 "STAGE 5 - CONSTRUCTION DOCUMENTATION AND MANAGEMENT", and 2.2.6 "STAGE 6 - PROJECT CLOSE – OUT", and 2.2.7 "ADDITIONAL RELATED SERVICES", as published in "Registration Rules for Construction Health and Safety Agents in Terms of Section 18 (1) (c) of the Project and Construction Management Professions Act, 2000 (Act No. 48 of 2000)" by the South African Council for Construction and Project Management Professionals in terms of the Project and Construction Management Professions Act (Act 48 of 2000 as amended), shall also apply.'
5.1.1.2	**Time Calculations** SEPARATE THE PHRASE "shall be excluded from the calculation of the time-span concerned." BY MOVING IT ONTO A NEW LINE AS A NEW PARAGRAPH, AND PROMOTE THAT PARAGRAPH BY ONE PARAGRAPH LEVEL TO A POSITION WHERE IT FORMS THE LAST PART OF SUB-CLAUSE 5.1.1, SO THAT SUB-CLAUSE 5.1.1.2 READS AS FOLLOWS: 5.1.1.2 The day on which the timespan commences shall be excluded from the calculation of the timespan concerned."
5.7.1	**Rate of progress** ON PAGE 25, IN THE TOP PARAGRAPH, FOR THE SENTENCE COMMENCING WITH "Such steps shall…" REPLACE THE SENTENCE "Such steps shall be approved by the Employer's Agent, which approval shall not be unreasonably withheld." WITH "Such steps shall be subject to the approval of the Employer's Agent, which approval shall not be unreasonably withheld."
6.5.1.3	**Basis of payment for dayworks** ON PAGE 40, IN THE LAST LINE OF THE SUB-CLAUSE, REPLACE THE PHRASE "ruling plant hire rates" WITH "ruling construction equipment hire rates"

C1.2.2 Part 2: Data Provided by the Contractor

GCC Clause	Information
Clause 1.1.9	The name of the Contractor is……... The Contact person is……
Clause 1.2.1.2	The address of the Contractor is: **Physical Address:** / **Postal Address:** Tel: / Fax: Email
Clause 6.2.1	The security to be provided by the Contractor shall be one of the following: The Performance Guarantee shall be irrevocable, On-Demand Performance Guarantee, to be issued exactly in the form of the proforma document provided in favour of the Employer by a Bank or Recognised Financial Institution or Cash in lieu of bond will apply.
Clause 6.8.3	The variation in cost of special materials is Type Unit Rate ***NOT APPLICABLE***

Johannesburg Water (SOC) Ltd

Johannesburg Water

VOLUME 1

PART 1.3: FORMS AND SECURITIES

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

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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

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

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.

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

PERFORMANCE GURANTEE

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

GUARANTEE REFERENCE NUMBER: [***]

Whereas **[insert the full name of the Employer],** registration number: **[insert registration number]**, of **[insert full physical address]** (the "**Employer**") has awarded a contract for **[insert a detailed description of the contract]**, under contract number: **[insert details]** (the "**Contract**"), to **[insert full names of the Contractor]**, registration number **[insert details]**, of **[insert full physical address]** (the "**Contractor**").

And whereas the Contract requires the Contractor to provide to the Employer an on-demand performance guarantee for the due and proper performance by the Contractor of its obligations in terms of the Contract.

Now therefore:

[insert full names of the Guarantor], registration number **[Insert details]**, of **[insert the full physical address]** (the "**Guarantor**"), duly represented by the undersigned: **[insert the full names of the signatory]**, and **[insert the full names of the signatory]**, acting herein in their respective capacities as: **[insert full title]** and **[insert full title]** respectively, of the Guarantor, and being duly authorized to sign this on demand performance guarantee (this "**Guarantee**")and to incur obligations in relation thereto, in the name, and on behalf, of the Guarantor under, and in terms of, a Resolutionof the Board of Directors or other written authority of the Guarantor, hereby irrevocably and unconditionally guarantees and undertakes:

1. To pay the Employer the sum or sums not exceeding the following aggregate amount: R **[insert the amount]** (the "**Guaranteed Amount**") upon receipt of the documents identified in clauses 1.1 to 1.3 below

    1.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 1.2;

    1.2. A first written demand issued by the Employer to the Guarantor e-mailed to ……with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 1.1 above and the sum certified has still not been paid;

    1.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum.

2. To pay to the Employer the Guaranteed Amount or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor emailed to ……. calling up this Performance Guarantee, such demand stating that:

   2.1. The Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 2; or

   2.2. A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 2; and

   2.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.

3. To pay to the Employer on demand any sum or sums not exceeding the Guaranteed Amount on presentation of a written demand signed by the Employer (the "**Demand**"), supported by a written statement signed by the Employer certifying that the Contractor, in the opinion of the Employer as at the date of issue of such Demand, is in breach of its obligations under the Contract or that a defect had occurred following the performance by the Contractor of its obligations under the Contract, and without being required to prove or set out the nature of any such breach or defect.

4. Payment by the Guarantor in terms of 1 to 3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

5. The Guarantor hereby acknowledges that:

   5.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;

   5.2. Its obligation under this Performance Guarantee is restricted to the payment of money.

6. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

7. Neither the failure of the Employer to enforce strict or substantial compliance by the Contractor with its obligations under the Contract nor any act, conduct or omission by the Employer prejudicial to the interests of the Guarantor will discharge the Guarantor from liability under this Guarantee.

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

8. This Performance Guarantee, with the required demand notices in terms of 1 to 3, shall be regarded as a liquid document for the purpose of obtaining a court order.

9. This Performance Guarantee is neither negotiable nor transferable.
10. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the date on which the Certificate of Completion of the Works has been issued or payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

11. The Guarantor chooses the physical address [**insert the full physical address]** care of [**insert the full names]**, as well as the e-mail address ……, for the service of all notices for all purposes in connection herewith.

12. This Guarantor is governed by the laws of the Republic of South Africa and any dispute arising hereunder shall be subject to the jurisdiction of the South African courts. In respect of such proceedings, each of the Parties specifically consents to the non-exclusive jurisdiction of the High Court of South Africa (Gauteng Local Division, Johannesburg).

Signed at **……** for and on behalf of **……..**

Guarantor's signatory (1)

Name: ……

Designation: ……..… …….

Guarantor's signatory (2)

Name: ……..

Designation: …….……. ……

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

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 _____
a certified copy of which resolution is 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 at _____
on the _____ day of _____ 20_____ in the presence of the subscribing witnesses.

As witnesses:

1. _____ _____
Name & Surname Signature

2. _____ _____
Name & Surname Signature

Duly authorised to sign on behalf of: _____

Address: _____

_____

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 Johannesburg Water ((Proprietary) Limited (hereinafter referred to as "the Employer) and _____ (hereinafter referred to as "the mandatary") as envisaged by Section 37(2) of the Occupational Health and Safety Act, No. 85, of 1993 as amended.

I _____ representing _____ (mandatary) do hereby acknowledge that _____ (mandatary) is an employer in its own right and shall be regarded as the employer for purposes of the contract work specified in the body of the principal agreement with duties as prescribed in the Occupational Health and Safety Act, No. 85 of 1993 as amended so as to ensure that all work will be performed or machinery and plant used in accordance with the provisions of the said Act. I furthermore agree to comply with the requirements of the Employer as contained in the Occupational Health and Safety Specification included with the principal agreement and to liaise with the employer should I, for whatever reason, be unable to perform in terms of this agreement.

Signed this _____ day of _____ at _____

Signature on behalf of mandatary _____

Signature on behalf of Employer _____

Compensation Fund Registration No. of mandatary _____

Good Standing Certificate : ☐ yes ☐ no (tick one box)

C1.3.4 Health and Safety Contract: General Information

1. 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.

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.

C1.3.4.1 Occupational Health and Safety 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 -
   - 1.1 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;
   - 1.2 ensure that consultants and/or visitors comply with any instructions and measures relating to occupational health and safety, as prescribed by the Employer; and
   - 1.3 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
   - 2.2 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
   - 2.3 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. I hereby confirm that I have the authority to sign this indemnity undertaking and that the Employer is not obliged to confirm such confirmation.

Signed at _____ This _____ day of _____

_____ _____
Signature Capacity

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

As witnesses:

1 _____

2 _____

Johannesburg Water (SOC) Ltd

Johannesburg Water

VOLUME 1

PART 1.3 : FORMS AND SECURITIES

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C1.3 FORMS AND SECURITIES

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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.

C1.3.1 Form of Guarantee

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

PERFORMANCE GUARANTEE

WHEREAS Johannesburg Water (SOC) Ltd (hereinafter referred to as "the Employer" or "beneficiary") entered into a Contract with

_____
(hereinafter called "the Contractor")

on the _____ day of _____ 20____ for

_____

at _____

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

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

NOW THEREFORE WE, _____
Do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorised and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alteration of the Completion Date which the Employer may make, give, concede or agree to under the said Contract

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

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

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

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

   _____

   _____ (R_____)

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

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

_____

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

on this _____ day of _____ 20____

As witnesses

1. _____

_____
Signature

2. _____

Duly authorised to sign on behalf of _____

Address _____

_____

C1.3.2 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

_____ a certified copy of which resolution is 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 at _____ on the

_____ day of _____ 20____ in the presence of the subscribing

witnesses.

As witnesses

1. _____

_____
Signature

2. _____

Duly authorised to sign on behalf of _____

Address _____

_____

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 Johannesburg Water ((Proprietary) Limited (hereinafter referred to as "the

Employer) and _____ (hereinafter referred to as "the mandatary") as envisaged by Section 37(2) of the Occupational Health and Safety Act, No. 85, of 1993 as amended.

I _____ representing

_____ (mandatary) do hereby acknowledge that

_____ (mandatary) is an employer in its own right and shall be regarded as the employer for purposes of the contract work specified in the body of the principal agreement with duties as prescribed in the Occupational Health and Safety Act, No. 85 of 1993 as amended so as to ensure that all work will be performed or machinery and plant used in accordance with the provisions of the said Act. I furthermore agree to comply with the requirements of the Employer as contained in the Occupational Health and Safety Specification included with the principal agreement and to liaise with the employer should I, for whatever reason, be unable to perform in terms of this agreement.

Signed this _____ day of _____ at _____

Signature on behalf of mandatary _____

Signature on behalf of Employer _____

Compensation Fund Registration No. of mandatary _____

Good Standing Certificate : ☐ yes ☐ no (tick one box)

C1.3.4 Health and Safety Contract: General Information

1. 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.

C1.3.4.1 Occupational Health and Safety Indemnity Undertaking

I, the undersigned _____

in my capacity as _____

of the firm _____

1.0 hereby undertake to ensure that I/my firm and/or employees and/or subcontractors and/or his employees -

1.1 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;

1.2 ensure that consultants and/or visitors comply with any instructions and measures relating to occupational health and safety, as prescribed by the Employer; and

1.3 comply strictly with the statutorily prescribed work systems, operational equipment, machinery and occupational health and safety conditions;

2.0 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

2.2 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

2.3 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.

3.0 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.

Signed at _____ This _____ day

of _____ _____

_____ _____

Signature Capacity

As witnesses:

1 _____

2 _____

Johannesburg Water SOC Ltd

Johannesburg Water

VOLUME 1

PART 2: PRICING DATA

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C2 PRICING DATA

C2.1 PRICING INSTRUCTIONS

C2.1.1 GENERAL PREAMBLE TO THE BILL OF QUANTITIES

a) 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.

c) The basis and principles of measurement and payment are described in this section (Pricing Instructions) and Clause 8 of each of the Standardised Specifications for Civil Engineering Construction. The applicable 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.

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

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

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

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

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

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

Unit : The unit of measurement for each item of work as defined in the 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.
l) 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.

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).

Employer:		Service Provider	
Witness:		Witness:	

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 2, 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 and Safety Specifications contained in Volume 2 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 2 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 RECOMMENDED LABOUR INTENSIVE TASKS

Construction Activities

dia = diameter

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

C2.2 BILL OF QUANTITIES

Employer:		Service Provider	
Witness:		Witness:	

Johannesburg Water

Registration No. 2000/029271/30

NORTHERN REGION BILL OF QUANTITIES
YEAR 1

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						
3.4	Transport (light vehicle)	km	1						

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
3.12	1000kVA (1MVA) transformer	Week	1						
4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Johannesburg Water

Registration No. 2000/029271/30

NORTHERN REGION BILL OF QUANTITIES
YEAR 2

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						
3.4	Transport (light vehicle)	km	1						

Johannesburg Water

Registration No. 2000/029271/30

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
3.12	1000kVA (1MVA) transformer	Week	1						
4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Johannesburg Water

Registration No. 2000/029271/30

NORTHERN REGION BILL OF QUANTITIES
YEAR 3

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						
3.4	Transport (light vehicle)	km	1	AA	AA	AA	AA	AA	AA

Johannesburg Water

Registration No. 2000/029271/30

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
3.12	1000kVA (1MVA) transformer	Week	1						
4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Johannesburg Water

Registration No. 2000/029271/30

SOUTHERN REGION BILL OF QUANTITIES
YEAR 1

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						
3.4	Transport (light vehicle)	km	1						

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
3.12	1000kVA (1MVA) transformer	Week	1						
4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Johannesburg Water

Registration No. 2000/029271/30

SOUTHERN REGION BILL OF QUANTITIES
YEAR 2

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						

Johannesburg Water

Registration No. 2000/029271/30

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.4	Transport (light vehicle)	km	1						
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
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4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Johannesburg Water

Registration No. 2000/029271/30

SOUTHERN REGION BILL OF QUANTITIES
YEAR 3

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
1	**SECTION 1: PRELIMENARY AND GENERAL** **NB: Items under this section are to be charged as percentage of work package cost**								
1.1	Compliance with the Occupational Health, Safety and Environment (once off)	Sum	1						
2	**SECTION 2: STRIP, QUOTE AND REPAIR**								
2.1	Strip and quote (indirect costs)	sum	1						
2.2	Strip, quote and repairs (indirect costs)	sum	1						
2.4	Workshop, repairs, machining, retrofitting and fabrication (turning, milling, drilling, grinding, painting, testing, etc)	hr	1						
3	**SECTION 3: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
3.1	Artisan (Electrician, Welder, Fitter, Instrument Mechanician, Carpenter)	hour	1						
3.2	Assistant/Handyman	hour	1						
3.3	Instrument/PLC/SCADA/ Protection Technician	hour	1						

Item	Description	Unit	Qty	Normal Time			Overtime		
				Rate (VAT Excl)	VAT	Rate (VAT Incl)	Rate (VAT Excl)	VAT	Rate (VAT Incl)
3.4	Transport (light vehicle)	km	1	AA	AA	AA	AA	AA	AA
3.5	Heavy Transport/Crane Truck - 10T and above	Hr	1						
3.6	50kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.7	100kVA Mobile Diesel Generator – wet rate plus operator	day	1						
3.8	Portable Diesel-driven Pump - suitable to pump sludge and handle solids (minimum 70mm), at least 150mm delivery bore. Rate to include Operator, Operator Assistant(s) and fuel	day	1						
3.9	315kVA Minisub complete	Week	1						
3.10	500kVA Minisub complete	Week	1						
3.11	500kVA Oil Transformer	Week	1						
3.12	1000kVA (1MVA) transformer	Week	1						
4	**SECTION 4: LABOUR, TRANSPORT, PLANT AND EQUIPMENT**								
	Mark up for replacement/spare parts, new equipment, materials used for repairs and maintenance (as per the attached list of spares annexure), including approved specialised services.	Sum	1	_____ %					

NB: Transport and travel time will be capped at 200km (return) and 2 hours (return) respectively. Mobile crane truck rate must include a wet plant, qualified operator/driver and necessary rigging/slinging team and equipment. Establishment cost must be included in day rate.

Name of tenderer (in full): _____

Telephone number: _____

e-mail: _____

Name of person authorized to sign this tender: _____ (BLOCK LETTERS)

Signature: _____Date: _____ 2025

Johannesburg Water SOC Ltd

REPAIRS AND MAINTENANCE OF LOW AND MEDIUM VOLTAGE ELECTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

VOLUME 2

PART 3: SCOPE OF WORK

Employer:		Contractor:	
Witness:		Witness:	

C3 SCOPE OF WORK

PORTION 1: PROJECT SPECIFICATION

PS.1 DESCRIPTION OF THE WORKS

CONTRACT DESCRIPTION

5.1. CONTRACT DESCRIPTION

The main objective of the project is to undertake repairs and maintenance of low and medium voltage infrastructure and associated components/equipment at various Wastewater Treatment Works in line with the latest relevant Particular Specifications of Johannesburg Water (SOC) Ltd.

This is a rate-based contract.

5.2. Overview of the Works

The scope of work to be performed under this contract include undertaking repairs and maintenance of low and medium voltage infrastructure and associated components/equipment. The work shall be executed on existing infrastructure and certain sections of the existing installation may be live during installation or maintenance, however relevant precaution and lockout procedures outlined in the safety procedures must be adhered to.

The prospective tenderers shall take into consideration all safety precaution requirement in compliance with:

- Act No. 85 of 1993 Occupational Health and Safety Act.
- Relevant SABS specifications and Codes of Practice
- Relevant and latest IEC Specifications and Codes of Practice
- IEC TR61641
- SANS 10142-1: Wiring of Premises
- SANS 10142-2: Wiring of Premises
- SANS 780: Distribution Transformers
- SANS 62271: Medium-voltage switchgear
- NEMA act

5.2.1. Scope of Contract

The scope of work under this project will be on a live, operational site, and the proposed tenders must therefore take cognizance of this fact when compiling their respective Occupational Health and Safety Plans and shall accommodate appropriate working procedures. It is considered essential that the final effluent quality shall take precedence over the contractor's rate of progress when performing the work, and the contractor shall therefore, in the construction programme, make adequate allowance.

As and when requested by Johannesburg Water, the contractor shall be responsible, but not limited to:

Maintenance (Corrective or proactive)

- Intake MV connection (including interface with local utility)
- Low Voltage (LV) and Medium Voltage (MV) cables, including termination, jointing, cable route markers, trench, and wireways.
- Ring Main Unit (RMU) and metering kiosks if available
- Outdoor or indoor Oil-immersed transformers and Minisubs
- MV and LV switchgear, including Ring Main Units (RMU), Battery Tripping Units (BTU), switching panels, protection settings, and automation.
- Main distribution board (DB)
- Motor Control Centre (MCC) for pumps and process equipment
- Cabling between switchgear, transformers, panels, and equipment
- Emergency backup diesel generator
- MV and LV Capacitor Banks and Power Factor Correction
- Buildings and Substations lightning protection and earthing system
- Plant and building's interior and exterior lighting.
- Area lighting and floodlighting, including high mast lights.
- MV and LV Overhead Lines if existing
- Substations, including civil, building, fencing, signage, security system, access control, drawing board, HVAC, UPS, fire detection system, fire system etc.
- MV and LV infra-red scanning
- Data logging for power quality analysis or energy consumption
- Supply and delivery of MV/LV operating arc-rated PPE.
- Supply and delivery of substation keys and tagout/lockout equipment.
- Supply, delivery and calibration of electrical test instruments.
- Supply, deliver, install, commission and test electrical equipment.
- Power metering
- Scope of work can also be extended to related work, subject to approval.

Testing and Commissioning

The contractor shall perform the following if required:

- Insulation resistance test (MV and LV)
- Primary injection test on protection relays
- Functional test of switchgear and transformers
- Earth loop impedance and continuity tests
- Oil sampling from transformers
- Submit test reports and commissioning certificates
- Contractor may be required to perform routine inspections and tests

Drawings and Documentation, and other related services

The contractor shall provide and not limited to:

- Updated single line diagrams (SLDs) if there was a change in design or new equipment was added into a system.
- Copying and printing of existing MV and LV systems' drawings
- Cable schedules with phase identification and cable routes after the work was completed.
- Equipment datasheets and catalogues
- Operation & Maintenance (O&M) manuals
- Supply and delivery of substation record books and MV operating (switching steps) books
- Supply and delivery of substation keys and tagout/lockout equipment
- Provision of related training

5.2.2. Location of the Works

The work is to be undertaken in the following facilities/Wastewater Treatment Works:

Region	Works/Site:	Physical Address:
North Region	Driefontein Works	Portion 55 of Farm (Clinic Rd, Muldersdrift) Driefontein 179IQ
	Northen Works	William Nicol Ext (Diepsloot), (R511 ± 8km north of Fourways)
South Region	Goudkoppies Works	Cnr East Street & Gibbs Road Devland
	Olifantsvlei Works	Cavendish Street Ext, Olifantsvlei 316-IQ Portion RE/2/316, (Adjacent to Nancefield Industrial Sites)
	Bushkoppie Works	Cnr Golden Highway, R553 and Stockwell Avenue, Eldorado Estates
	Ennerdale Works	Portion 48 of Farm, Elandsfontein 30810

5.3. ENGINEERING

5.3.1. Employer's Design

The scope of work shall be executed on existing infrastructure, and the design shall be largely based on equipment installed in the plant for the purpose of executing the scope of work. The intention is to retain as much as it is possible of the current equipment design as it is. Any deviation shall be approved by the Employer's representative before execution.

5.3.2. Drawings

Not all as-built drawings are available.

5.4. PROCUREMENT

5.4.1. Purchasing of Equipment

The Contractor is required to purchase the materials and equipment necessary for the Contract at the earliest possible date in the interest of minimising procurement lead-time. The Contractor must strive to keep the lead-time as minimum as possible by prioritising procurement of all the long lead items. Payment for materials and equipment shall only be affected under the following conditions:

- If the Contractor's work has been completed and the handover of the completed section to the Works, as detailed under this project specification, has been approved.
- If the Contract has delivered ordered materials or equipment as detailed in the official purchase order/instruction.

5.4.2. Guarantee of Equipment

It is an express condition of this Contract that the guarantee period on all equipment given by the suppliers to the Contractor shall only commence once the equipment is in full operation and has been formally handed over. Certificate of Completion / Partial Certificate must be signed in the format agreed with the Employer's Representative.

5.4.3. Details or Specifications of Equipment Offered

Technical information regarding offered equipment must be supplied to the Employer's Representative before orders are placed. The Employer's Representative must first approve the technical information on the offered equipment. Where applicable, the Employer's Representative may request specific Quality Control Plans.

5.4.4. Subcontracting

No subcontracting is envisaged in this Contract. However, should subcontracting take place the Contractor shall be solely responsible for the supervision of and

payments to such Sub-contractor(s) and any approval of a subcontractor by the Employer's Representative shall not indemnify the Contractor from any of his liabilities in terms of his agreement with the subcontractor and delivery of this project scope of works.

5.5. SITE WORKS

5.5.1. Generic Specifications

The material and equipment supplied and repaired under this contract will be done so in line with the latest versions of Johannesburg Water's particular generic specifications/standards. JW's authorised representative will share the applicable generic specifications/standards per work package issued to the service provider. The requirements of such documents shall be considered when work packages are quoted by the service provider.

5.5.2. Plant and Materials

Johannesburg Water shall have the right to refuse acceptance of any material, equipment, or workmanship which is found to be unsound, damaged, or contrary to the specification, or which is found during tests to be defective or in any way contrary to the specification due to causes within the Contractor's control or responsibility. All material, equipment, or construction rejected by the Employer's Representative shall be replaced or repaired by the Contractor at his own expense to the satisfaction of the Employer's Representative, whose decision regarding this matter shall be binding on the Contractor.

All materials used shall be the best of their respective kinds and shall be suitable for working at the temperatures involved under all working conditions, without distortion, deterioration, or the setting up of undue stresses in any part and without impairing the efficiency or reliability of the plant and the strength of its component parts.

5.5.3. Construction Equipment

Construction equipment necessary to complete the works as set out in this contract shall be supplied and operated by the Contractor. The cost associated with the use of construction equipment shall be for the expense of the Contractor.

5.5.4. Existing Services

The existing treatment works must remain in operation during the execution of the contract. The Employer must always have access to the works. The Contractor shall take precautions to prevent any damage to existing services. Any damages, which might occur, shall be repaired at the cost of the Contractor, to reinstate the services to that of the original status prior to the commencement of the Contract. Any damages to existing services or equipment must be repaired within 24 hours.

5.5.5. Site Establishment, Facilities Available and Required

5.5.5.1. Water Supply

Water is available on site.

5.5.5.2. Power Supply

5.5.5.2.1. Supply of Electricity

Electricity is available on site. However, there are instances where alternative power supply will be required.

5.5.5.2.2. Lifting Equipment

Lifting equipment necessary to complete the works as set out in this contract shall be supplied and operated by the Contractor. The cost associated with the use of lifting equipment shall be for the expense of the Contractor.

5.5.5.2.3. Site Office, Store and Housing

The Contractor must provide their own working facilities, storage facilities and housing if they shall so need them. There shall be no space available for on-site housing.

5.5.5.2.4. Temporary Works

No temporary works are envisaged under this Contract. No equipment intended for permanent installation shall be operated for temporary purpose without the written permission of and in complete agreement with stipulations as set forth by the Employer's Representative

5.5.5.2.5. Telephone Facilities

The Contractor shall be responsible for arranging his own telephone facilities and shall be responsible for all costs relating thereto.

Ablution Facilities

Ablution facilities are available on site.

5.5.5.2.6. Storage Facilities

Contractor must provide their own storage facilities.

5.5.5.2.7. Facilities for the Contractor

If the Contractor provides these, the Contractor must maintain and remove his own facilities to the satisfaction of the Employer's Representative. Erection of any facilities must first be approved by the Employer's Representative.

5.5.5.2.8. Waste Disposal Sites

The Contractor shall make his own arrangements for disposal of any waste generated while on site. Disposal shall take place at an approved Site. No approved Sites are available within the Works terrain.

5.5.5.2.9. Permits and Wayleaves

All equipment removal from the Works shall be in accordance with the Works removal permit processes/procedures and only the Johannesburg Water's representative nominee for the project shall sign the removal permit.

No wayleaves are envisaged under the Contract.

5.5.5.2.10. Alterations, Additions, Extensions and Modifications to Existing Works

These will only be limited as per the scope of works as described.

5.5.5.2.11. Site Security

The contractor shall at all times remain liable for the safety and security of their own personnel and belongings, and any material or equipment not yet handed over while at JW premises.

5.6. MANAGEMENT OF THE WORKS

5.6.1. Planning and Programming

The Contractor shall submit a programme of the work package to the Employer's Representative. Thereafter, the Contractor may not deviate from his proposed sequence of work package execution without the prior approval of the Employer's Representative. The programme submitted shall show all milestone dates such as commencement, ordering dates, site delivery dates, and completion dates. The work package shall be executed within a period approved from date of received of the official appointment. The programme shall consider that the work is to be performed on a live plant and that shutdowns must be agreed to and approved by the Employer's Representative beforehand.

5.6.2. Methods and Procedures

The Contractor may be required to supply detailed method statements, complete with resources, detailing how he intends to complete the work on the appointed scope of works/work packages. All method statements must be approved the Employer's Representative.

5.6.3. Quality Plans and Control

Quality plans and the control shall be in accordance with the requirements of the Generic Particular Specifications as compiled. Every work package issued under this contract must have a unique quality control plan in a written format. All quality plans must be approved by the Employer's Representative before any works commence either on site or off site. The quality control plans shall be completed and inserted in the data books before commissioning.

5.6.4. Format of Communications

All communication shall be in writing. The format of all communication shall be as approved by Employer's Representative.

5.6.5. Management Meetings / formal correspondence

The Contractor shall be required to attend any kick-off meeting as per the request of the Project Manager before any works start. The Contractor shall also be required to attend all progress and technical meetings as and when required until the end of the contract. Record of the meetings and formal correspondence shall be kept by the Employer's Representative for record purpose.

5.6.6. Forms for Contract Administration

The Employer shall provide all standard forms for equipment removal. The Contractor shall be required to also provide standardized format for purpose of quality control and record keeping.

5.6.7. Job Records

The Contractor shall be required to keep record of activity in agreed format. The activity report shall be submitted to the Employer's Representative for signature as per agreed hold-on points. Records shall include all on-site and off-side activities in compliance to approved quality control plans. These records shall include but not limited to all material deliveries, components certificate, and technical date sheets, equipment delivered to site or storage and installed.

5.6.8. Reports

When reports are requested, the contractor shall submit electronic copy of all reports requested by JW Representative/Project Manager.

5.6.9. Project Team

The contractor shall also ensure that they will always have enough qualified personnel to attend to JW's contractual needs.

Electrical installation work shall not be performed without the general control of an Installation Electrician or Master Installation Electrician.

Low voltage maintenance work shall not be performed without the direct supervision of a person who possesses an electrical trade test certificate.

Medium voltage maintenance work shall not be performed without the direct supervision of a person who possesses an electrical trade test certificate and has valid certificates in ORHVS Authorised Person.

MV cable jointing shall only be performed under direct supervision of a person who possesses an electrical trade test certificate, valid ORHVS Authorised Person and valid medium voltage cable jointing certificate.

MV cable termination shall only be performed under direct supervision of a person who possesses an electrical trade test certificate, valid ORHVS Authorised Person and valid medium voltage cable termination certificate.

5.6.10. Safety Plan

The Contractor shall be required to compile a Health and Safety plan in accordance with the JW OHS specifications issued with this tender. A comprehensive risk assessment shall be done on every site before any work commences. Site-specific Permit-to-Work and Lockout procedures and other JW's site-specific HSE Rules must be followed at all times. All health and safety risks shall be reported to the JW person responsible for that site.

5.7. Support Response Times

The Contractor must comply with the following response times throughout the contract duration. The Contractor is to advise the Project Manager timeously about any potential challenges which may affect compliance of response times.

Support Type	Maximum Response Times
Submission of normal service quotation	5 working days
Submission of emergency service quotation	Immediately after troubleshooting is completed.
Start of site work after the Purchase Order is issued by JW	3 working days
Start of emergency work	Immediately after JW has formally approved the quotation
Response for normal service request	36 hours
Response to emergency service	4 hours
Supply, deliver, and offload materials, tools, and spare parts after obtaining the official purchase order	14 working days
Delivery of long lead equipment after the purchase order is issued by JW	12 weeks

5.8. Site Security

The contractor shall remain liable for the safety and security of their own personnel and belongings, while at JW premises, always. All equipment or items not yet handed over to JW shall be for the security of the contractor.

5.9. Duration of Contract

This contract is only for thirty-six (36) months, on as and when required, otherwise specified in the allocation strategy.

6. Equipment Specification

All equipment offered by the Contractor shall be as per the Bill of Quantities and technical specifications.

Item No.	Component	Size
1	Conveyor motor	2,2kW
2	Contactors 220V Coil	2,2kW
3		4kW
4		7,5kW
5		11kW
6		15kW
7		18,5kW
8		22kW
9		30kW
10		55kW
11		75kW
12		90kW
13		110kW
14		135kW
15	Contactors 380V Coil	2,2kW
16		4kW
17		7,5kW
18		11kW
19		15kW
20		18,5kW
21		22kW
22		30kW
23		55kW
24		75kW
25		90kW
26	Reversing Contactor	11KW
27	Overload Relays	THERMAL OVERLOAD R/M 0.4 - 0.63A - LR2-D1304
28		THERMAL OVERLOAD R/M 0.63 - 1A - LR2-D1305
29		THERMAL OVERLOAD R/M 1 - 1.6A - LR2-D1306
30		THERMAL OVERLOAD R/M 1.6 - 2.5A - LR2-D1307
31		THERMAL OVERLOADR/M 2.5 - 4A - LR2-D1308
32		THERMAL OVERLOAD R/M 4 - 6A - LR2-D1310
33		THERMAL OVERLOAD R/M 5.5 - 8A - LR2-D1312
34		THERMAL OVERLOAD R/M 7 - 10A - LR2-D1314
35		THERMAL OVERLOAD R/MO 9 - 3A - LR2-D1316
36		THERMAL OVERLOAD R/M 12 - 18A - LR2-D1321
37		THERMAL OVERLOAD R/M 17 - 25A - LR2-D1322
38		THERMAL OVERLOAD R/M 23 - 32A - LR2-D2353
39		THERMAL OVERLOAD R/M 30 - 40A - LR2-D2355
40		THERMAL OVERLOAD R/M 37 - 50A - LR2-D3357
41		THERMAL OVERLOAD R/M 48 - 65A - LR2-D3359
42		THERMAL OVERLOAD R/M 63 - 80A - LR2-D3363

43	Torque monitoring relay	Fenner 160
44	Flow meters controller	MCU901WX-A
45	Flow meter transmitters	MSP9000SH-A/20
46	Limit switch	ER802350 TYPE E300-00-FM
47	AUXILIARY CONTACT BLOCK LA1-DN	LA1-DN40 Type LC1-F CONTACT 4NO
48		LA1-DN22 Type LC1-F CONTACT 2NO/2NC
49		LA1-DN04 Type LC1-F CONTACT 4NC
50		LA1-DN31 Type LC1-F CONTACT 3NO/1NC
51	E-STOP PUSHBUTTON TURN TO RELEASE XAL	XAL-K174 TYPEA4,AISI 316
52	E-STOP PUSHBUTTON KEY RELEASE XAL	XAL-K184 TYPEA4,AISI 316
53	CONTROL STATION ENCLOSURE	XAL-K174 TYPEA4,AISI 316
54	VSD (3 phase, 380V, 50Hz)	VSD Micromaster 440, 6SE6440-2UD21-5AA1, 7.5kW, 380V
55		VSD Micromaster 440, 6SE6440-2AD27-5CA1, 1.5kW, 380V
56		Sinamics V20 380-480 3P 1.5kw 6SL3210-5BE21-5U0
57		Sinamic V20 380/480v 3P 0.37kw 6SL3210-5BE13-7UV0
58		Sinamic V20 380/480v 3P 2. 2 kw 6SL3210-5BE22-2UV0
59		CWF11 1.5kW
60		CWF11 2,2kW
61		CWF11 3kW
62		CWF11 4kW
63		CWF11 5,5kW
64		CWF11 7,5kW
65		CWF11 9,2kW
66		CWF11 11kW
67		CWF11 15kW
68		CWF11 22kW
69		CWF11 30kW
70		CWF11 45kW
71		0,37kW
72		1,1kW
73		2,2kW
74		90kW
75		110kW
76	Ethernet/Network switch	MOXA EDS-518E-4GTXSFP
77		MOXA EDS-510E-3GTXSFP
78		Moxa Core Switches, industrial rackmount switch, type IKS-G6823
79		Hirchman RS20
80		Moxa EDS 4012-4GC-LV
81	INSULATION TAPE 1kV	1710 INSULATION FLAME RETARDANT 18MM X 20M RED
82		1710 INSULATION FLAME RETARDANT 18MM X 20M WHITE
83		1710 INSULATION FLAME RETARDANT 18MM X 20M BLUE
84		1710 INSULATION FLAME RETARDANT 18MM X 20M BLACK
85		1710 INSULATION FLAME RETARDANT 18MM X 20M GREEN

86	Motors (Flange Mount, IE3, VSD driven, IP55, 400V, three phase, 2/4/6 Pole) - from 7.5kW upwards must come complete with thermistors and heaters	0.18kW
87		0.37kW
88		0.55kW
89		0.75kW
90		1.1kW
91		1.5kW
92		2.2kW
93		3kW
94		4kW
95		5.5kW
96		7.5kW
97		11kW
98		15kW
99		18.5kW
100		22kW
101		30kW
102		37kW
103		45kW
104		55kW
105		75kW
106		90kW
107		110kW
108		132kW
109		160kW
110		200kW
111		250kW
112	Motors (Foot Mount, IE3, VSD driven, IP55, 400V, three phase, 2/4/6 Pole) - from 7.5kW upwards must come complete with thermistors and heaters	0.18kW
113		0.37kW
114		0.55kW
115		0.75kW
116		1.1kW
117		1.5kW
118		2.2kW
119		3kW
120		4kW
121		5.5kW
122		7.5kW
123		11kW
124		15kW
125		18.5kW
126		22kW
127		30kW
128		37kW

129		45kW
130		55kW
131		75kW
132		90kW
133		110kW
134		132kW
135		160kW
136		200kW
137		250kW
138	Motors (geared, IP55, VSD driven, 400V, three phase, 2/4/6 Pole)	0.18kW
139		0.37kW
140		0.55kW
141		0.75kW
142		1.1kW
143		1.5kW
144		2.2kW
145		3kW
146		4kW
147		5.5kW
148	Motors - Flameproof (Ex d IIC T4 G6 or better protection), 400V, 3 phase, foot/flange mount	0.18kW
149		0.37KW
150		0.55kW
151		0.75kW
152		1.1kW
153		1.5kW
154		2.2kW
155		3kW
156		4kW
157		5.5kW
158		7.5kW
159		11kW
160		15kW
161		18.5kW
162		22kW
163		30kW
164	Motors - Non sparking (Ex nAc IIC T5 or better protection), 400V, 3 phase,	0.18kW
165		0.37KW
166		0.55kW
167		0.75kW
168		1.1kW
169		1.5kW
170		2.2kW
171		3kW

172	foot/flange mount	4kW
173		5.5kW
174		7.5kW
175		11kW
176		15kW
177		18.5kW
178		22kW
179		30kW
180	Motors - Increased safety (Ex eb IIC T5 Gb or Ex ec IIC T5 Gb or better protection), 400V, 3 phase, foot/flange mount	0.18kW
181		0.37KW
182		0.55kW
183		0.75kW
184		1.1kW
185		1.5kW
186		2.2kW
187		3kW
188		4kW
189		5.5kW
190		7.5kW
191		11kW
192		15kW
193		18.5kW
194		22kW
195		30kW
196	CIRCUIT BREAKES MCB, SINGLE POLE, 400VAC,6KA	2A
197		6A
198		10A
199		16A
200		20A
201		25A
202	CIRCUIT BREAKES MCB, DOUBLE POLE, 400VAC,6KA	2A
203		10A
204		16A
205		20A
206		25A
207	CIRCUIT BREAKES MCB, 3 POLE, 400VAC,6KA	10A
208		20A
209		30A
210		40A
211		20A
212		25A
213		30A
214		40A

215	CIRCUIT BREAKES MCCB, 3 POLE, 400VAC,35KA, TMA/MA, Cat A	50A
216		60A
217		80A
218		100A
219		125A
220		150A
221		200A
222		250A
223		300A
224		400A
225	CIRCUIT BREAKES MCB, EARTH LEAKAGE, 400VAC,6KA	25A
226		63A
227		100A
228	FUSES (680VAC, gG)	0,1A
229		0,5A
230		0,8A
231		1A
232		1,25A
233		1,5A
234		2A
235		3A
236	FUSES (680VAC, gG)	1A
237		2A
238		4A
239		6A
240		8A
241		10A
242		12A
243		16A
244		20A
245		25A
246		32A
247	FUSES (680VAC, gG)	2A
248		4A
249		6A
250		10A
251		16A
252		25A
253		32A
254	FUSES (680VAC, gG)	100A
255		160A
256		315A
257		400A

258		500A
259	FUSES (680VAC, gG)	2A
260		4A
261		6A
262		10A
263		16A
264		20A
265	FUSES (680VAC, gG)	35A
266		40A
267		50A
268		63A
269		80A
270		100A
271	Fuse	TCP100M200
272	CONTACTORS 230VAC COIL,3NO+1NOAUX+1NCAUX	4A
273		5,5A
274		7,5A
275		11A
276		15A
277		22A
278		30A
279		37A
280		50A
281		75A
282		90A
283		110A
284		160A
285		220A
286	OVERLOAD RELAY 3 POLE, THERMAL WITH 1NO+1NC	1-1,6A
287		1,6-2,5A
288		2,5-4A
289		45753A
290		5,5-8A
291		45848A
292		45913A
293		46009A
294		17-25A
295		23-32A
296		37-50A
297		48-65A
298		55-70A
299		63-80A
300		80-93A

301		90-110A
302	Bulbs/ Lamps	T8 5FT 36W 2850lm
303		ESL42-125 -E40
304		T5 Cabinet Lig+A162:A177ht Fittings GL-128 28W
305		PL-7CW 7 W G23 BCF-G23
306		2D-16-CW GR8 BCF-GR8
307		LS 20 Day/Night SW Spectrum
308		Metal Halide MT400-E40
309		Mercury Vapour QE-80 E 27
310		Mercury Vapour QE-250W E40
311		High Pressure Sodium SD400-E40 Tubular
312		Flourescent Lamp Ballast 58 Watts FL65
313		Flourescent Lamp T8 5FT 58W 1800lm
314	Field Isolator stardelta KG 100 Kraus &Naimer 3 phase 380V	Field Isolator stardelta KG 100 Kraus &Naimer 3 phase 380V
315	Electronic Motor protection LA100Amps	Electronic Motor protection LA100Amps
316	On Load Isolator 3 pole VC1P80Amps	On Load Isolator 3 pole VC1P80Amps
317	Electronic Motor Protection LA250	Electronic Motor Protection LA250
318	On Load Isolator 3 pole VC1P160 Amps	On Load Isolator 3 pole VC1P160 Amps
319	On Load Isolator 3 pole VC1P315Amps	On Load Isolator 3 pole VC1P315Amps
320	CWM150E Contactor with Auxillary 4 N/O- 4/NC	CWM150E Contactor with Auxillary 4 N/O- 4/NC
321	LC1F115 TeSys Contactor with auxillary 4N/O- 4N/C	LC1F115 TeSys Contactor with auxillary 4N/O- 4N/C
322	3 Pole Thermal Overload Relay LR9 F5571	3 Pole Thermal Overload Relay LR9 F5571
323	3 Pole Thermal Overload Relay LR9F5367	3 Pole Thermal Overload Relay LR9F5367
324	LR9 F5569 Thermal Overload Relay	LR9 F5569 Thermal Overload Relay
325	LR9 F5571 Thermal Overload Relay	LR9 F5571 Thermal Overload Relay
326	LR9 5567 Thermal Overload Relay	LR9 5567 Thermal Overload Relay
327	LR9 5557 Thermal Overload Relay	LR9 5557 Thermal Overload Relay
328	LC1F185 Contactor 380V 3P 220V with Aux 2 N/O 2 N/C	LC1F185 Contactor 380V 3P 220V with Aux 2 N/O 2 N/C
329	LC1 F225 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C	LC1 F225 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C
330	LC1 F150 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C	LC1 F150 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C
331	LC1 F115 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C	LC1 F115 Contactor 380V 3P 220V Coil with Aux 2N/O 2N/C
332	Telemacanique GV2-P06/1-1.6 Amps with Aux N/C	Telemacanique GV2-P06/1-1.6 Amps with Aux N/C
333	Telemacanique GV2-P06/10 Amps with Aux N/C	Telemacanique GV2-P06/10 Amps with Aux N/C
334	Telemacanique GV2-PO6/20Amps	Telemacanique GV2-PO6/20Amps
335	NSX250S 100kA 380-415V 3P LV431391	NSX250S 100kA 380-415V 3P LV431391
336	Thermal-Magnetic trip unit TM250D 3P LV431430	Thermal-Magnetic trip unit TM250D 3P LV431430
337	NSX 160S 100kA 380/415V 3P LV430391	NSX 160S 100kA 380/415V 3P LV430391
338	Thermal-Magnetic trip unit TM3P LV430430	Thermal-Magnetic trip unit TM3P LV430430
339	NSX 100S 100kA 380/415V 3P LV429018	NSX 100S 100kA 380/415V 3P LV429018
340	Thermal-Magnetic trip unit TM100D LV429030	Thermal-Magnetic trip unit TM100D LV429030
341	Core joint kits	J5 70mm x 4 core joint kits 1000V
342		J4 35-50mm x4 core joint kits 1000V
343		J2 10-16mm X 4core joint kits 1000V

344		J3 25-35mmx 4 core joint kits 1000V
345		J6 95mmx 4core joint kits 1000V
346	Lugs (Pack of 50)	35 X 12mm
347		50 X 12mm
348		16 x 8mm
349		Lugs 70 x 12mm
350		Lugs 95 x 12mm
351		Lugs 120 X 12mm
352		Lugs 35 X 10mm
353		Lugs 50 X 12mm
354		Lugs 50 X 10mm
355		Lugs 70 x 10mm
356		Lugs 95x 10mm
357		35 x 8mm
358	Ferrules (Pack of 50)	Ferrule 10mm
359		Ferrule 16mm
360		Ferrules 35 mm
361		Ferrules 50 mm
362		Ferrules 70mm
363		Ferrules 95mm
364		Ferrules 120 mm
365	Pin type lugs (Pack of 50)	10mm2 x 12mm
366		16mm2 x 13mm
367		25mm2 x 15mm
368		35mm2 x 20mm
369		50mm2 x 20mm
370		70mm2 x 25mm
371		95mm2 x 25mm
372	Limit Switch EM1G441Z side Cable Type EMI 30w x 50H (mm)	EM1G441Z
373	Thermal Magnetic Circuit Breaker GV2P07	GV2P07
374	Thermal Magnetic Circuit Breaker GV2P08	GV2P08
375	Power Supply 220V Input / 24v Output Weidmuller Pro-M	220V Input / 24v Output Weidmuller Pro-M
376	LC1D25 Contactor with auxillary 380v AC3 11Kw	LC1D25
377	LRD 07 DOL kW at 400/415V 1.1 kw	LRD 07
378	8 Pin Plug in Relay Flat MY1IN Omron Base 220v/240v	220v/240v
379	14 Pin Plug in Relay Flat MYIN Omron Base 220v/240v	220v/240v
380	Hirschmann DIL Switch RS20-0400M2T1SDAEHH07.0.02	RS20-0400M2T1SDAEHH07.0.02
381	Inductive Proximity Sensor M18 8mm	XS618B1PAL2, M18 8mm
382	Inductive Proximity Sensor M8 2.5mm	XS608B1PAL2, M8 2.5mm
383	Inductive Proximity Sensor 12 mm	SI12-AE4 NO 20-250 VAC, 12 mm diameter, 20-250 VAC
384	BATTERY GENERAL PURPOSE 1.5V SIZE AA	1.5V SIZE AA
385	BATTERY GENERAL PURPOSE 1.5V SIZE AAA	1.5V SIZE AAA
386	BATTERY GENERAL PURPOSE 1.5V SIZE D	1.5V SIZE D

387	TOOL TORCH (RECHARGABLE) RUBERRIZED HEAVY DUTY	LED
388	T DRILL BIT MASONRY (SET)	SET (5-12 mm)
389	LED GLOBE BAYNET 7WATT 230V BC	7WATT 230V BC
390	LED GLOBE BAYONET 11WATT 230V BC	11WATT 230V BC
391	LED GLOBE BAYNET 7WATT 230V ES	7WATT 230V ES
392	LED GLOBE BAYONET 11WATT 230V ES	11WATT 230V ES
393	CABLE TIES	CABLE TIES: T120R (385 X 7.8MM QTY50)
394		CABLE TIES: T50R (200 X 4.6MM QTY100)
395		CABLE TIES: T30R (148 X 3.5MM QTY100)
396	CABLE STL BRAIDED	CABLE STL BRAIDED 6MMX50 M
397	LIGHT SWITCH: 1 LEVER & CV	LIGHT SWITCH: 1 LEVER & CV
398	LIGHT SWITCH: 2 LEVER & CV	LIGHT SWITCH: 2 LEVER & CV
399	Industrial 4 x 4 Double Socket Outlet 16A	Industrial 4 x 4 Double Socket Outlet 16A
400	Industrial 4 x 4 Single Socket Outlet 16A	Industrial 4 x 4 Single Socket Outlet 16A
401	Domestic 4 x 4 Double Socket Outlet 16A	Domestic 4 x 4 Double Socket Outlet 16A
402	Domestic 4 x 4 Single Socket Outlet 16A	Domestic 4 x 4 Single Socket Outlet 16A
403	LED GLOBE PAR38 7WATT GE	7WATT GE
404	LED GLOBE PAR38 11WATT GE	11WATT GE
405	GEN Electric Cable 16AMP	GEN Electric Cable 16AMP
406	LED GLOBE MERCURY VAPOUR 125W	LED GLOBE MERCURY VAPOUR 125W
407	LED GLOBE ES 160WATT MERCURY V	LED GLOBE ES 160WATT MERCURY V
408	Utility Knife with 3 Blade store in body	Utility Knife with 3 Blade store in body
409	Crimping tools hex hand crimp	1.5 -25mm
410	Set of Allen Keys 30 Pc	0.28-3/8.07-10mm
411	A Set of Phillips Electrician screwdrives	A Set of Phillips Electrician screwdrives
412	A set of Pozidrive Electrician screwdrivers	A set of Pozidrive Electrician screwdrivers
413	9 PC Ratchet wrench set	8mm-19mm
414	3 Pc File set 200mm flat,round and half round	3 Pc File set 200mm flat,round and half round
415	Nylon tool bag	Nylon tool bag
416	Solenoid valve SCE210B156.	Solenoid valve SCE210B156. 230 Volt coils.
417	Outdoor IP66 LED Flood Light	400W
418	Outdoor IP66 LED Flood Light	200W
419	Rectangular industrial bulkhead LED light fittings IP68 - wall mounted	100W
420	Network Card	M580 NOC CONTROL NETWORK CARD BMENOC0321
421		X80 RIO DROP E/IP PERF BMXCRA31210
422	ePac controller/ PLC	M580 BAS REL ST W10 16I 230VAC ISOLATED ABE7S16E2M0
423		M580 SUB-BASE WITH 16 N/O RELAY CONTACTS 5A, 1 x HE10 ABE7R16S210
424		M580 DIGITAL INPUTS BMXDDI6402K DIG 64I 24 VDC SINK
425		M580 DIGITAL INPUTS DIG 16I 24 VDC SINK BMXDDI1602
426		M580 DIGITAL OUTPUTS BMXDDI3202K DIG 32I 24 VDC SINK
427		M580 DIGITAL OUTPUTS BMXDAI1615 Dig 16I 220 VAC SINK
428		M580 DIGITAL OUTPUTS BMXDRC0805 DIG 8Q RELAYS NO/NC TYPE C
429		M580 ANALOGUE MODULES BMXAMI0810 ANA 8 U/I IN ISOLATED FAST

430		M580 ANALOGUE MODULES BMXAMO0410 ANA 4 U/I OUT ISOLATED
431	Earthing LV cables	Bare Copper Earthwire (kg)
432		Kwena 10mm2 (insulated/bare)
433		Kwena 16mm2 (insulated/bare)
434		Kwena 25mm2 (insulated/bare)
435		Kwena 35mm2 (insulated/bare)
436		Kwena 50mm2 (insulated/bare)
437		Kwena 70mm2 (insulated/bare)
438		Kwena 95mm2 (insulated/bare)
439		Kwena 120mm2 (insulated/bare)
440		Kwena 150mm2 (insulated/bare)
441		Kwena 190mm2 (insulated/bare)
442		Vandal proof composite earth cable (insulated) 16mm2
443		Vandal proof composite earth cable (insulated) 25mm2
444		Vandal proof composite earth cable (insulated) 35mm2
445		Vandal proof composite earth cable (insulated) 50mm2
446		Vandal proof composite earth cable (insulated) 70mm2
447		Vandal proof composite earth cable (insulated) 95mm2
448		Vandal proof composite earth cable (insulated) 120mm2
449		Vandal proof composite earth cable (insulated) 120mm2
450		Aluminium earth bar
451		Copper earth bar
452	Panel Flex Cables (all colours, single core)	1.5mm2 100m roll
453		2.5mm2 100m roll
454		4mm2 100m roll
455		6mm2
456		10mm2
457		16mm2
458		25mm2
459		35mm2
460		50mm2
461		70mm2
462		95mm2
463		120mm2
464	Power Meter	PowerLogic PM800 (PM820MG)
465		Socomec Diris A-20 + RS485 JBUS/MODBUS c/w suitable CT's
466	4 core Cu Cable PVC,PVC, SWA, PVC, FR	10mm2
467		16mm2
468		25mm2
469		35mm2
470		50mm2
471		70mm2
472		95mm2

473		120mm2
474		150mm2
475		185mm2
476	UPS	Srpro-3300 (rack-mount)
477		3kVA
478	Control Relays (220V)	ST -100
479		ST - 510
480		ST - 511
481		14-pin relay
482	Softstarter	PSTX37-600-70
483		PSTX45-600-70
484		PSTX60-600-70
485		PSTX72-600-70
486		PSTX85-600-70
487		PSTX105-600-70
488		PSTX142-600-70
489		PSTX170-600-70
490		PSTX210-600-70
491		PSTX250-600-70

Specification Sheet for MV and LV Spares

No.	Item / Family	Description & Key Features	Colours / Options	Installation
1	220V Contactor Coils	Rectangular AC coils for industrial contactors; built-in surge suppression	Black/dark coil body with markings	Panel or DIN rail mounting
2	380V Contactor Coils	Higher voltage coils for motor control; optional surge suppression	Dark coil casing with printed details	DIN rail, panel or screw mount
3	Thermal Overload Relays	Motor phase and overload protection; adjustable current ranges 0.4A to 80A	Light grey/beige with labelled settings	Direct mount on contactor or panel
4	Flow Meter Controller MCU901WX-A	Wall mount universal HART flow controller; 4 relay outputs, IP65	Grey/beige with LED display	Wall mount with brackets
5	Ultrasonic Level Transmitter MSP9000SH-A/20	Two-wire intrinsically safe HART ultrasonic level transmitter; 0.3-12m range	Metallic sensor housing	Threaded 1” BSPP tank mounting
6	General Meter Probes	Industrial probes for temp, pH, conductivity; 4.8/6.35mm dia.	Metal body with standard connectors	Cable lead with miniplug or bare wires
7	Insulation Tape (PVC, 1kV rated)	Flexible electrical insulation tape; flame retardant, multi-colour options	Red, black, blue, yellow, green, white, grey	Hand-wrap or machine applied
8	Single Pole MCB, 400VAC, 6kA	Miniature circuit breaker, Type B/C trip curves, 2-25A ratings	Grey housing, black/red toggle	DIN rail mounting
9	Industrial Fuses (Cartridge)	Cartridge/glass fuses, 125-600V, fast and time-delay types	Marked with ratings and codes	Plug-in holders or panel mounting
10	Cable Ties	Nylon self-locking cable ties, UV resistant, various sizes	Usually black; other colours available	Hand wrap or cable tie gun
11	LED Globe Bayonet/ES	LED retrofit bulbs, 7W and 11W, 230VAC, daylight or warm light	Bayonet (B22d) or Edison Screw (E27) bases	Standard lamp holders

No.	Item / Family	Description & Key Features	Colours / Options	Installation
12	LED Globe PAR38	High-power LED floodlight bulbs, 7W/11W, 230V, 30-60° beam angle	PAR38 bayonet base	Standard PAR38 fixtures
13	LED Mercury Vapour Globes	LED lamps replacing Hg vapour lights, 125W/160W equivalent	E27 or ES base	Standard high bay lamp holders
14	Fluorescent Tubes & Ballasts	T8 (36-58W), T5 (28W) tubes; electronic ballasts	Standard G13 or G5 bases	Tube holders and ballast panel mounts
15	Metal Halide & Sodium Lamps	HID lamps 400W rated; metal halide and sodium types	E40 base standard	Requires compatible ballast
16	Compact Fluorescent Lamps	PL-7CW (7W), 2D-16-CW (16W) compact lamps	G23, GR8 or BC bases	Cabinet and indoor lighting
17	Motors (Various types and ratings)	Flange and foot mount, IE3 Premium efficiency; flameproof, non-sparking and increased safety variants	Grey industrial paint	Flange or foot mounting
18	Thermal Magnetic Circuit Breakers	GV2P series for motor protection; manual reset, thermal overload and magnetic short circuit trip	Grey housing	DIN rail or panel mounting
19	Auxiliary Contact Blocks	Snap-on NO/NC contactors for control logic	Typically black or grey	Mount clipped to contactor
20	Emergency Stop Pushbuttons	Stainless steel mushroom pushbuttons; turn-to-release or key release	Red with yellow base	Panel mount
21	Control Station Enclosures	AISI 316 stainless steel, IP66 rated control stations	Natural Metallic	Wall mount
22	Proximity Sensors (Inductive)	M8, M12, M18 threaded sensors, NPN/PNP output	Metallic or black finish	Threaded body
23	Solenoid Valves SCE210B156	230V AC coil, 2/3 way valve for fluid or pneumatic control	Metallic or brass	Inline or manifold mount

No.	Item / Family	Description & Key Features	Colours / Options	Installation
24	Ethernet Switches and Network Cards	Industrial network modules for 10/100/1000 Mbps Ethernet	Typically grey or black	DIN rail or rack mount
25	PLCs and Modular I/O	Modular programmable logic controllers and I/O modules	Grey or black enclosures	Rack or panel mount
26	Electrical Cables and Accessories	Copper and aluminium conductors in various sizes; bare and insulated types	Standard green/yellow for earth; others per spec	Trays, underground, above ground
27	Lugs and Ferrules	Copper/tinned copper crimp terminals in various sizes	Metallic natural copper	Crimp or solder on cables
28	Cable Ties (Plastic)	Nylon self-locking ties UV stabilized, various sizes	Mostly black; available in colours	Hand install or tool-applied
29	Lighting Switches & Outlets	Standard 1 or 2 lever switch with composite casing; industrial double and single outlets	Standard colours (white/grey/black)	Flush or
30	Electronic Motor Protection LA100 Amps	Electronic motor protection relay, current rating 100A, overload and fault protection	Standard grey/black	Panel mount, DIN-rail compatible
31	On Load Isolator 3 pole VC1 P80 Amps	3 Pole On Load Isolator switch, rated 80A, voltage up to 415V AC	Black or grey	Fixed mounting, panel or enclosure install
32	Electronic Motor Protection LA250	Motor protection relay, 250A current rating, phase loss, overload, short circuit protection	Grey/black	DIN rail or panel installation
33	On Load Isolator 3 pole VC1 P160 Amps	3 Pole On Load Isolator switch, rated 160A, suitable for industrial motor load disconnection	Black or grey	Panel mounting, industrial application
34	On Load Isolator 3 pole VC1 P315 Amps	Heavy-duty 3 Pole On Load Isolator switch, 315A rated, for larger motor and power circuit isolation	Black or grey	Fixed panel/metal enclosure installation

No.	Item / Family	Description & Key Features	Colours / Options	Installation
35	CWM150E Contactor with Auxiliary 4 N/O-4 N/C	Contactors rated 150A, auxiliary contacts 4 normally open + 4 normally closed	Standard industrial grey	Panel mount with mounting brackets
36	LC1F115 TeSys Contactor with auxiliary 4N/O-4N/C	TeSys contactor, 115A, auxiliary 4 N/O + 4 N/C, coil voltage 220V AC	Grey	DIN rail or panel mounting
37	3 Pole Thermal Overload Relay LR9 Series (F5571, F5367, F5569, 5557 etc.)	Thermal overload relay for motor protection, adjustable current ranges, 3 pole	Grey or black	Mount on contactor or panel
38	LC1F Series Contactors (115, 150, 185, 225)	Industrial contactors rated 115A to 225A, 3 phase, coil 220V AC with auxiliary contacts 2 N/O + 2 N/C	Grey	Panel or DIN rail mount
39	Telemecanique GV2-P Series Thermal Magnetic Circuit Breakers (06/1-1.6A, 06/10A, 06/20A)	Adjustable overload protection with magnetic trip, auxiliary N/C contact	Light grey	Panel or motor mount
40	NSX Series Circuit Breakers (100S, 160S, 250S) with trip units	LV circuit breakers rated 100 to 250A, breaking capacity 100kA, thermal-magnetic trip units TM series	Black and grey	Panel mount, fixed installation
41	Core Joint Kits	Kits for cable core jointing, including insulation and connectors	Various insulation colors	Cable jointing in panels/pits
42	Lugs, Ferrules, Pin type Lugs (Pack of 50)	Electrical cable connectors for secure connections, various sizes	Silver (metallic)	Crimp or solder installation
43	Limit Switch EM1G441Z Side Cable Type EMI	Snap action mechanical limit switch, side cable entry, compact dimensions	Grey or black	Panel or machine mounting
44	Thermal Magnetic Circuit Breakers GV2P07, GV2P08	Motor protection breakers GV2P range, rated 7A and 8A, thermal-magnetic overload and short circuit protection	Light grey	Motor starter panels or control boxes

No.	Item / Family	Description & Key Features	Colours / Options	Installation
45	Power Supply 220V Input / 24V Output Weidmuller Pro-M	Industrial power supply unit, 220VAC in, regulated 24VDC out	Grey	DIN rail mount
46	LRD 07 DOL kW at 400/415V 1.1 kW	Direct On Line (DOL) motor starter for 1.1 kW motors at 400/415V	Standard industrial grey	Panel mount, motor control panels
47	8 Pin Plug-in Relay Flat MY1IN Omron Base 220V/240V	General purpose relay with 8-pin plug, suitable coil voltage 220-240V	Black housing	DIN rail or socket base mount
48	14 Pin Plug-in Relay Flat MY1N Omron Base 220V/240V	General purpose relay 14-pin, coil voltage 220-240V	Black housing	Plug into DIN rail base
49	Hirschmann DIL Switch RS20-0400M2T1SDAEHH07	Rotary DIP switch, multiple positions, precision industrial switch	Black	PCB or control panel mounted
50	Inductive Proximity Sensors (M18 8mm, M8 2.5mm, 12mm)	Non-contact sensors for metal detection, different sensing ranges and sizes	Metal finish/black	Panel or machinery mount
51	Batteries General Purpose (AA, AAA, D 1.5V)	Standard dry cell batteries for general use	Various	In battery holders or devices
52	Tool Torch Rechargeable, Rubberized Heavy Duty	Portable LED rechargeable torch, rubberized grip	Black/yellow	Handheld use
53	T Drill Bit Masonry Set	Set of masonry drill bits for concrete, brick, and stone drilling	Metal	Standard drill chuck compatible
54	LED Globes Bayonet & ES (7W, 11W)	Energy efficient LED light bulbs with bayonet and Edison screw caps, 230V operation	White light (cool/warm options)	Standard lamp holders
55	Cable Ties, Steel Braided Cable Ties	Nylon or stainless steel cable ties for cable management	Black, natural, metallic	Hand or tool applied

No.	Item / Family	Description & Key Features	Colours / Options	Installation
56	Light Switches (1 Lever & CV, 2 Lever & CV)	Standard electrical switches with conventional voltage rating	White or cream	Wall box mounting
57	Industrial & Domestic Socket Outlets (4x4, 16A)	Power sockets with industrial or domestic ratings, multi-gang configurations	Industrial grey, domestic white	Wall or panel mounting
58	LED Globe PAR38 & Mercury Vapour Globes	High-intensity LED and traditional mercury vapour lamps for industrial and outdoor use	Clear or frosted	Standard lampholder fittings
59	Utility Knife with 3 Blade Store in Body	Multi-purpose cutting tool with internal blade storage	Black/yellow	Handheld tool
60	Crimping Tools Hex Hand Crimp	Manual crimping tool for hexagonal lugs and terminals	Black/red handles	Handheld tool
61	Allen Keys Sets, Screwdrivers, Ratchet Wrench Sets, File Sets	Various hand tools for electrical and mechanical work	Assorted tool colors	Handheld tools
62	Nylon Tool Bag	Durable nylon bag for tool storage	Black/grey	Portable
63	Solenoid Valve SCE210B156	Electrically operated valve for fluid control	Metal/brass	Mounted on piping systems
64	Outdoor IP66 LED Flood Light	High power LED floodlight, IP66 rated for outdoor use, weatherproof	Grey or black	Wall or pole mount
65	Rectangular Industrial Bulkhead LED Light IP68	IP68 rated LED bulkhead light fitting, suitable for harsh environments	Grey or black	Wall mount
66	Network Card	Industrial network interface card for control system communication	Green PCB, metal connectors	Installation in PLC or control panel
67	ePac Controller / PLC	Programmable Logic Controller unit for industrial automation	Grey or black	Panel mount with wiring

No.	Item / Family	Description & Key Features	Colours / Options	Installation
68	Earthing LV Cables	Low voltage earthing cables for electrical safety	Black or green/yellow	Cable routing via trays or conduits
69	Panel Flex Cables (All colours, Single Core)	Single core flexible cables for internal panel wiring, assorted colours and sizes	Various standard insulation colors	Internal panel wiring, numbered by colour
70	Electronic Motor Protection LA100 Amps	Electronic motor protection relay, current rating 100A, overload and fault protection	Standard grey/black	Panel mount, DIN-rail compatible
71	On Load Isolator 3 pole VC1 P80 Amps	3 Pole On Load Isolator switch, rated 80A, voltage up to 415V AC	Black or grey	Fixed mounting, panel or enclosure install
72	Electronic Motor Protection LA250	Motor protection relay, 250A current rating, phase loss, overload, short circuit protection	Grey/black	DIN rail or panel installation
73	On Load Isolator 3 pole VC1 P160 Amps	3 Pole On Load Isolator switch, rated 160A, suitable for industrial motor load disconnection	Black or grey	Panel mounting, industrial application
74	On Load Isolator 3 pole VC1 P315 Amps	Heavy-duty 3 Pole On Load Isolator switch, 315A rated, for larger motor and power circuit isolation	Black or grey	Fixed panel/metal enclosure installation
75	CWM150E Contactor with Auxiliary 4 N/O-4 N/C	Contactors rated 150A, auxiliary contacts 4 normally open + 4 normally closed	Standard industrial grey	Panel mount with mounting brackets
75	LC1F115 TeSys Contactor with auxiliary 4N/O-4N/C	TeSys contactor, 115A, auxiliary 4 N/O + 4 N/C, coil voltage 220V AC	Grey	DIN rail or panel mounting
77	3 Pole Thermal Overload Relay LR9 Series (F5571, F5367, F5569, 5557 etc.)	Thermal overload relay for motor protection, adjustable current ranges, 3 pole	Grey or black	Mount on contactor or panel

No.	Item / Family	Description & Key Features	Colours / Options	Installation
78	LC1F Series Contactors (115, 150, 185, 225)	Industrial contactors rated 115A to 225A, 3 phase, coil 220V AC with auxiliary contacts 2 N/O + 2 N/C	Grey	Panel or DIN rail mount
79	Telemecanique GV2-P Series Thermal Magnetic Circuit Breakers (06/1-1.6A, 06/10A, 06/20A)	Adjustable overload protection with magnetic trip, auxiliary N/C contact	Light grey	Panel or motor mount
80	NSX Series Circuit Breakers (100S, 160S, 250S) with trip units	LV circuit breakers rated 100 to 250A, breaking capacity 100kA, thermal-magnetic trip units TM series	Black and grey	Panel mount, fixed installation
81	Core Joint Kits	Kits for cable core jointing, including insulation and connectors	Various insulation colors	Cable jointing in panels/pits
82	Lugs, Ferrules, Pin type Lugs (Pack of 50)	Electrical cable connectors for secure connections, various sizes	Silver (metallic)	Crimp or solder installation
83	Limit Switch EM1G441Z Side Cable Type EMI	Snap action mechanical limit switch, side cable entry, compact dimensions	Grey or black	Panel or machine mounting
84	Thermal Magnetic Circuit Breakers GV2P07, GV2P08	Motor protection breakers GV2P range, rated 7A and 8A, thermal-magnetic overload and short circuit protection	Light grey	Motor starter panels or control boxes
85	Power Supply 220V Input / 24V Output Weidmuller Pro-M	Industrial power supply unit, 220VAC in, regulated 24VDC out	Grey	DIN rail mount
86	LRD 07 DOL kW at 400/415V 1.1 kW	Direct On Line (DOL) motor starter for 1.1 kW motors at 400/415V	Standard industrial grey	Panel mount, motor control panels
87	8 Pin Plug-in Relay Flat MY1IN Omron Base 220V/240V	General purpose relay with 8-pin plug, suitable coil voltage 220-240V	Black housing	DIN rail or socket base mount

No.	Item / Family	Description & Key Features	Colours / Options	Installation
88	14 Pin Plug-in Relay Flat MY1N Omron Base 220V/240V	General purpose relay 14-pin, coil voltage 220-240V	Black housing	Plug into DIN rail base
89	Hirschmann DIL Switch RS20-0400M2T1SDAEHH07	Rotary DIP switch, multiple positions, precision industrial switch	Black	PCB or control panel mounted
90	Inductive Proximity Sensors (M18 8mm, M8 2.5mm, 12mm)	Non-contact sensors for metal detection, different sensing ranges and sizes	Metal finish/black	Panel or machinery mount
91	Batteries General Purpose (AA, AAA, D 1.5V)	Standard dry cell batteries for general use	Various	In battery holders or devices
92	Tool Torch Rechargeable, Rubberized Heavy Duty	Portable LED rechargeable torch, rubberized grip	Black/yellow	Handheld use
93	T Drill Bit Masonry Set	Set of masonry drill bits for concrete, brick, and stone drilling	Metal	Standard drill chuck compatible
94	LED Globes Bayonet & ES (7W, 11W)	Energy efficient LED light bulbs with bayonet and Edison screw caps, 230V operation	White light (cool/warm options)	Standard lamp holders
95	Cable Ties, Steel Braided Cable Ties	Nylon or stainless steel cable ties for cable management	Black, natural, metallic	Hand or tool applied
96	Light Switches (1 Lever & CV, 2 Lever & CV)	Standard electrical switches with conventional voltage rating	White or cream	Wall box mounting
97	Industrial & Domestic Socket Outlets (4x4, 16A)	Power sockets with industrial or domestic ratings, multi-gang configurations	Industrial grey, domestic white	Wall or panel mounting
98	LED Globe PAR38 & Mercury Vapour Globes	High-intensity LED and traditional mercury vapour	Clear or frosted	Standard lampholder fittings

No.	Item / Family	Description & Key Features	Colours / Options	Installation
		lamps for industrial and outdoor use		
99	Utility Knife with 3 Blade Store in Body	Multi-purpose cutting tool with internal blade storage	Black/yellow	Handheld tool
101	Allen Keys Sets, Screwdrivers, Ratchet Wrench Sets, File Sets	Various hand tools for electrical and mechanical work	Assorted tool colors	Handheld tools
102	Steel Toolboxes	Durable, heavy-duty toolboxes offering strong protection and impact resistance (530 x 200 x 200-205 mm)	Commonly black, red, blue	Portable with handles or mounted
103	Aluminium Toolboxes	Lightweight, corrosion-resistant, good for portability. (865 x 485 x 460 mm)	Metallic silver, anodized	Portable, often with wheels and handles
104				
104	Solenoid Valve SCE210B156	Electrically operated valve for fluid control	Metal/brass	Mounted on piping systems
105	Outdoor IP66 LED Flood Light	High power LED floodlight, IP66 rated for outdoor use, weatherproof	Grey or black	Wall or pole mount
106	Rectangular Industrial Bulkhead LED Light IP68	IP68 rated LED bulkhead light fitting, suitable for harsh environments	Grey or black	Wall mount
107	Network Card	Industrial network interface card for control system communication	Green PCB, metal connectors	Installation in PLC or control panel
108	ePac Controller / PLC	Programmable Logic Controller unit for industrial automation	Grey or black	Panel mount with wiring
109	Earthing LV Cables	Low voltage earthing cables for electrical safety	Black or green/yellow	Cable routing via trays or conduits

No.	Item / Family	Description & Key Features	Colours / Options	Installation
110	Panel Flex Cables (All colours, Single Core)	Single core flexible cables for internal panel wiring, assorted colours and sizes	Various standard insulation colors	Internal panel wiring, numbered by colour
111	Light Switches (1 Lever & CV, 2 Lever & CV)	Standard electrical switches with conventional voltage rating	White or cream	Wall box mounting
112	Industrial & Domestic Socket Outlets (4x4, 16A)	Power sockets with industrial or domestic ratings, multi-gang configurations	Industrial grey, domestic white	Wall or panel mounting
113	LED Globe PAR38 & Mercury Vapour Globes	High-intensity LED and traditional mercury vapour lamps for industrial and outdoor use	Clear or frosted	Standard lampholder fittings
114	Utility Knife with 3 Blade Store in Body	Multi-purpose cutting tool with internal blade storage	Black/yellow	Handheld tool
115	Crimping Tools Hex Hand Crimp	Manual crimping tool for hexagonal lugs and terminals	Black/red handles	Handheld tool
116	Allen Keys Sets, Screwdrivers, Ratchet Wrench Sets, File Sets	Various hand tools for electrical and mechanical work	Assorted tool colors	Handheld tools
117	Nylon Tool Bag	Durable nylon bag for tool storage	Black/grey	Portable
118	Solenoid Valve SCE210B156	Electrically operated valve for fluid control	Metal/brass	Mounted on piping systems
119	Outdoor IP66 LED Flood Light	High power LED floodlight, IP66 rated for outdoor use, weatherproof	Grey or black	Wall or pole mount
120	Rectangular Industrial Bulkhead LED Light IP68	IP68 rated LED bulkhead light fitting, suitable for harsh environments	Grey or black	Wall mount
121	Network Card	Industrial network interface card for control system communication	Green PCB, metal connectors	Installation in PLC or control panel

No.	Item / Family	Description & Key Features	Colours / Options	Installation
122	ePac Controller / PLC	Programmable Logic Controller unit for industrial automation	Grey or black	Panel mount with wiring
123	Earthing LV Cables	Low voltage earthing cables for electrical safety	Black or green/yellow	Cable routing via trays or conduits
124	Panel Flex Cables (All colours, Single Core)	Single core flexible cables for internal panel wiring, assorted colours and sizes	Various standard insulation colors	Internal panel wiring, numbered by colour
125				
126	LED Globe PAR38 7Watt GE	Energy-efficient LED globe, PAR38 shape, 7W power, suitable for indoor/outdoor use	Warm white, standard base	Standard bayonet or screw fitting
127	LED Globe PAR38 11Watt GE	Higher output LED PAR38 globe, 11W, bright warm white light	Warm white	Bayonet or screw fitting
128	GEN Electric Cable 16AMP	Standard electric cable rated 16A for general wiring	Black or colored insulation	Cable tray, conduit, or direct run
129	LED Globe Mercury Vapour 125W	High intensity discharge lamp, 125W, mercury vapour technology	Clear or frosted	Standard lamp holder
130	LED Globe ES 160W Mercury V	Edison Screw based 160W mercury vapour lamp, high intensity light	Clear	Standard ES lamp holder
131	Utility Knife with 3 Blade Store	Multi-purpose utility knife with internal blade storage for safety convenience	Black/yellow	Handheld use
132	Set of Allen Keys 30 Pc	Assorted hex keys for various sizes used in mechanical and electrical assembly	Various metallic finishes	Handheld, tool kit bag
133	Set of Phillips Electrician Screwdrivers	Electrician's set of Phillips head screwdrivers designed for electrical work	Various handle colors	Handheld tool

No.	Item / Family	Description & Key Features	Colours / Options	Installation
134	Set of Pozidrive Electrician Screwdrivers	Set of Pozidrive head screwdrivers for electrical applications	Various handle colors	Handheld tool
135	9 PC Ratchet Wrench Set	Ratchet wrenches with various sizes for mechanical/electrical assembly	Assorted colors	Handheld tool
136	3 Pc File Set 200mm (Flat, Round, Half Round)	Set of three metal files with different profiles for shaping and smoothing	Black/red handles	Handheld tool
137	Nylon Tool Bag	Durable nylon fabric tool storage bag with multiple pockets	Black or grey	Portable
138	Solenoid Valve SCE210B156	Electrically actuated valve for fluid control, industrial coil voltage range	Brass/metal body	Mounted on piping systems
140	Outdoor IP66 LED Flood Light	Weatherproof LED floodlight, high power, suitable for outdoor lighting	Grey or black	Wall or pole mounting
141	Rectangular Industrial Bulkhead LED Light IP68	High ingress protection LED bulkhead light, dust and water tight, rugged	Grey or black	Wall mount
142	Network Card	Industrial network interface card for control system communication	Green PCB	PLC or control panel mount
143	ePac Controller / PLC	Programmable Logic Controller unit for industrial automation	Grey or black	Panel mount with wiring
144	Earthing LV Cables	Low voltage earthing cables for electrical safety	Green/yellow or black	Cable trays, conduit routing
145	Panel Flex Cables (all colours, single core)	Flexible single core cables for internal panel wiring	Multiple insulation colours	Internal panel wiring
146	LED Globe PAR38 7Watt GE	Energy-efficient LED globe, PAR38 shape, 7W power, suitable for indoor/outdoor use	Warm white, standard base	Standard bayonet or screw fitting

No.	Item / Family	Description & Key Features	Colours / Options	Installation
147	LED Globe PAR38 11Watt GE	Higher output LED PAR38 globe, 11W, bright warm white light	Warm white	Bayonet or screw fitting
148	GEN Electric Cable 16AMP	Standard electric cable rated 16A for general wiring	Black or colored insulation	Cable tray, conduit, or direct run
149	LED Globe Mercury Vapour 125W	High intensity discharge lamp, 125W, mercury vapour technology	Clear or frosted	Standard lamp holder
150	LED Globe ES 160W Mercury V	Edison Screw based 160W mercury vapour lamp, high intensity light	Clear	Standard ES lamp holder
151	Utility Knife with 3 Blade Store	Multi-purpose utility knife with internal blade storage for safety convenience	Black/yellow	Handheld use
152	Crimping Tools Hex Hand Crimp	Manual hand tool for crimping hexagonal terminals and lugs	Black/red handles	Handheld use
153	Set of Allen Keys 30 Pc	Assorted hex keys for various sizes used in mechanical and electrical assembly	Various metallic finishes	Handheld, tool kit bag
154	Set of Phillips Electrician Screwdrivers	Electrician's set of Phillips head screwdrivers designed for electrical work	Various handle colors	Handheld tool
155	Set of Pozidrive Electrician Screwdrivers	Set of Pozidrive head screwdrivers for electrical applications	Various handle colors	Handheld tool
156	9 PC Ratchet Wrench Set	Ratchet wrenches with various sizes for mechanical/electrical assembly	Assorted colors	Handheld tool
157	3 Pc File Set 200mm (Flat, Round, Half Round)	Set of three metal files with different profiles for shaping and smoothing	Black/red handles	Handheld tool
158	Nylon Tool Bag	Durable nylon fabric tool storage bag with multiple pockets	Black or grey	Portable

No.	Item / Family	Description & Key Features	Colours / Options	Installation
159	Solenoid Valve SCE210B156	Electrically actuated valve for fluid control, industrial coil voltage range	Brass/metal body	Mounted on piping systems
160	Outdoor IP66 LED Flood Light	Weatherproof LED floodlight, high power, suitable for outdoor lighting	Grey or black	Wall or pole mounting
161	Rectangular Industrial Bulkhead LED Light IP68	High ingress protection LED bulkhead light, dust and water tight, rugged	Grey or black	Wall mount
162	Network Card	Industrial network interface card for control system communication	Green PCB	PLC or control panel mount
163	ePac Controller / PLC	Programmable Logic Controller unit for industrial automation	Grey or black	Panel mount with wiring
164	Earthing LV Cables	Low voltage earthing cables for electrical safety	Green/yellow or black	Cable trays, conduit routing
165	Panel Flex Cables (all colours, single core)	Flexible single core cables for internal panel wiring	Multiple insulation colours	Internal panel wiring
166	Bare Copper Earthwire (kg)	Bare copper conductor wire used for earth bonding and grounding; excellent conductivity and corrosion resistance	Natural bare copper	Buried in earth or mounted on structure
167	Kwena Insulated/Bare Earth Cables (10mm² to 190mm²)	Stranded copper earth cables available insulated or bare; meet SANS 1507 standards; various sizes from 10mm² to 190mm²	Green/yellow insulation for insulated versions; bare copper otherwise	Laid in cable trenches, conduits, cable trays
168	Vandal Proof Composite Earth Cable (Insulated, 16mm² to 120mm²)	Durable composite insulation providing mechanical protection against physical damage; suitable for exposed or vandal-prone areas	Green/yellow composite insulation	Fixed in exposed locations, surface mounted
169	Aluminium Earth Bar	Busbar for grounding connections with lightweight	Natural aluminium finish	Fixed in panels or earthing pits

No.	Item / Family	Description & Key Features	Colours / Options	Installation
		aluminium; good corrosion resistance		
170	Copper Earth Bar	Copper busbar for grounding connections; superior conductivity; corrosion resistant	Natural copper finish	Mounted in earth pits or distribution boards
171	Insulated Screwdrivers	VDE or IEC certified insulated screwdrivers for safe electrical work up to 1000V	Various handle colors (red/yellow common)	Handheld, essential for electrical panels and terminals
172	Wire Strippers	Multi-function wire strippers for removing insulation and cutting wire	Typically red, yellow grip	Handheld for cable preparation and termination
173	Insulated Pliers (Combination, Needle nose, Cutter)	Multi-purpose pliers insulated up to 1000V, for cutting, bending, gripping, stripping wire	Often red/yellow insulated grips	Handheld, vital for wiring and repairs
174	Cable Cutters	Heavy-duty insulated cable cutters for safely cutting cables up to specified diameters	Red or yellow insulated handles	Handheld for cable preparation
175	Voltage Testers / Multimeter	Digital or analog testers to check presence of voltage and troubleshoot electrical circuits	Usually yellow or red casing	Portable handheld for diagnostics and safety verification
176	Crimping Tools (Handheld Hex crimp)	Manual tool for crimping lugs and connectors to cables	Usually black and red handles	Handheld for secure cable terminals
177	Utility Knife (Safety Knife)	Multi-purpose knife with replaceable blade, used for stripping cable insulation and general cutting	Black/yellow common	Handheld tool for insulation removal
178	Allen Keys Set (Hex Keys)	Set of hex keys of various sizes for fasteners and electrical enclosures	Various metallic colors	Handheld for mechanical fasteners
179	Ratchet Wrench Set	Ratchet handle with interchangeable socket sizes for fast tightening or loosening nuts and bolts	Assorted colors	Handheld tool for mechanical tasks

No.	Item / Family	Description & Key Features	Colours / Options	Installation
180	Head Torch / Portable Torch	Hands-free LED headlamp or handheld torch for illumination in dark/low light areas	Black/yellow or black	Portable for working in confined/dark spaces

ANNEXURE 1:

BASELINE RISK ASSESSMENT

ANNEXURE 2:

MEDICAL SCREENING POLICY

ANNEXURE 3:

SIGN OFF FORM

ANNEXURE 4:

ENVIRONMENTAL MANAGEMENT PLAN

ANNEXURE 5:

JW 6.4 (RETURNABLE ANNEXURE A)

	OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION	
Johannesburg Water	TENDER NUMBER:	JW OPS 077/24
	PROJECT LOCATION:	VARIOUS BULK WASTEWATER TREATMENT PLANTS
	PROJECT DESCRIPTION:	REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

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 2)
- 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*	

Signature must be as per form T2.12 as applicable

BASELINE RISK ASSESSMENT

ACTIVITY: TRANSPORTATION OF MATERIALS TO SITE

Task	Hazard	Risk	Consequence	Rating	Controls
Transportation of material to site	✓ Unsafe road conditions ✓ Un-road worthy vehicles ✓ Equipment and material not safely secured ✓ Incompetent drivers ✓ Driving under the influence of alcohol ✓ Inclement weather ✓ Speeding ✓ Slippery road	✓ Overturning vehicles ✓ Vehicle collisions ✓ Bumping pedestrians / employees	✓ Injuries ✓ Property damages ✓ Third party liability	**M**	✓ Adherence to the speed limit ✓ Only competent/ authorised drivers should operate the vehicle ✓ Inspection of vehicles ✓ Equipment and material to be properly secured ✓ Alcohol testing to be done ✓ The road to be paved to prevent accidents ✓ Traffic control to be implemented to avoid collisions
Offloading of material	✓ Faulty lifting machinery & equipment ✓ Suspended load ✓ Poor housekeeping	✓ Malfunctioning ✓ Falling on employees ✓ Obstructed walkways by materials	✓ Injuries	**M**	✓ Inspect lifting equipment prior to use. ✓ Ensure the safe working load prior to use ✓ Train the employees in manual lifting ✓ Ensure proper housekeeping ✓ The correct PPE must be worn ✓ Designate the stacking areas and put signs ✓ Stacking and storage inspector must be appointed and in charge

WORKING INSIDE CONFINED SPACES

Task	Hazard	Risk	Consequence	Rating	Controls
Entry inside MCC rooms / pump station	✓ Slippery steps	✓ Falling	✓ Injuries	M	✓ Inspect the steps prior to entering
	✓ Poor lighting	✓ Falling	✓ Injuries	M	✓ Ensure that there is sufficient lighting in the confined space
	✓ Overhead structures	✓ Bumping against overhead structures	✓ Injuries	M	✓ Train employees in confined space entry / techniques ✓ Ensure that there is sufficient lighting ✓ Provide employees with safety boots and hard hats
	✓ Limited working space	✓ Falls on equipment	✓ Injuries	M	✓ Train employees in confined space entry / techniques ✓ Ensure that there is sufficient lighting ✓ Provide employees with safety boots and hard hats
	✓ Raw sewer	✓ Skin contact ✓ Ingestion ✓ Splashing into eyes	✓ Waterborne diseases	H	✓ Provide employees with proper PPE, and ensure that the mouth, nose and eyes are covered. ✓ Vaccinate employees and ensure that they are medically fit to work in confined spaces.
	✓ No fire detection and suppression system	✓ Fire	✓ Fatalities ✓ Damage to property	H	✓ Ensure that there is a method in place for detection and suppression of fire. ✓ Ensure that fire fighting equipment is serviced and relevant for the type of fires prevalent in the pump station and MCC room
	✓ Poor / No ventilation	✓ Continued exposure to oxygen-deficient air	✓ Suffocation	H	✓ Ensure that there is mechanical / natural ventilation
	✓ Noise	✓ Over-exposure	✓ Noise-induced hearing loss	M	✓ Provide employees with hearing protection ✓ Provide rest periods for employees

WORKING INSIDE CONFINED SPACES

Task	Hazard	Risk	Consequence	Rating	Controls
Working at heights	✓ Heights ✓ Unfit employees ✓ Using hand tools ✓ Unsecured tools and equipment	✓ Falls ✓ Equipment falling onto employees	✓ Injuries	**M**	✓ Employees to use proper PPE including safety harnesses when working at heights. ✓ Inspect all tools prior to use. ✓ Provide training for using safety harnesses correctly. ✓ Employees working at heights must be certified fit to work. ✓ Hand tools must be attached to lanyards when working at heights. ✓ Use tool bags ✓ Use netting system below each level. ✓ No work should be done on the ground when work at heights is in progress. ✓ Proper signage to be displayed.
Use of hand tools	✓ Repetitive movements	✓ Improper bending	✓ Back pains	**L**	✓ Training in correct posture during shovelling
	✓ Distance between employees	✓ Hitting each other with tools	✓ Injuries	**M**	✓ Ensure safe distance between employees
	✓ Damaged hand tools	✓ Contact with skin	✓ Injuries	**L**	✓ Inspect tools prior to use ✓ Provide employees with gloves

Johannesburg Water	OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT	
	PROJECT NUMBER:	JW OPS 077/24
	PROJECT LOCATION:	VARIOUS BULK WASTEWATER TREATMENT WORKS
	PROJECT DESCR:	REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

ACTIVITY: ELECTRICAL WORKS

Task	Hazard	Risk	Consequence	Rating	Controls
Electrical works	✓ Live electric cables	✓ Electric Shock	✓ Serious injuries	**M**	✓ Ensure that electricity supply is switched off during installation ✓ Implement lockout procedures
	✓ Inadequate wiring	✓ Electric fault ✓ Fire	✓ Injuries ✓ Property damages	**H**	✓ Only competent persons to do the electrical work
	✓ Use of faulty cables	✓ Fire ignition	✓ Burns/ damages	**M**	✓ Visual inspection of cable before use
Cabling	✓ Cutting	✓ Eye penetration	✓ Eye injuries/ blindness	**M**	✓ Safety goggles shall be worn by employees when cutting steel
	✓ Unit activation	✓ Struck by equipment	✓ Injuries	**M**	✓ Lock out/ Tag out
	✓ Live Yard	✓ Electrocution Injury ✓ Working unauthorized ✓ Miscommunication between employees	✓ Serious injuries	**M**	✓ Obtain a permit ✓ Follow cardinal rules ✓ Strict supervision ✓ Fire extinguisher must always be on site ✓ Obtain a permit and follow all procedures ✓ Strict supervision ✓ Competent technician operation ✓ Issue test certificate for every testing and inspection done
	✓ Electrical connection ✓ Extension cords	✓ Explosion ✓ Faulty cord failure	✓ Injuries ✓ Property damages ✓ Fire	**M**	✓ Emergency stop button must always be serviceable ✓ Fire extinguishers must always be kept on site ✓ Work to be done by competent personnel

	OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT	
Johannesburg Water	PROJECT NUMBER:	JW OPS 077/24
	PROJECT LOCATION:	VARIOUS BULK WASTEWATER TREATMENT WORKS
	PROJECT DESCR:	REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

ACTIVITY: ELECTRICAL WORKS

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Electrical equipment ✓ Portable electrical appliances	✓ Use of faulty electrical equipment; ✓	✓ Electric shock/ burns ✓ Injuries	**M**	✓ All tools to be checked and tagged before bringing onto site; ✓ Portable electrical appliances examined and where necessary, tested by a competent person within the recommended time limit; ✓ Defective appliances and leads are removed from use and kept secured until they can be repaired or removed from the site; ✓ Electric tools and installations to be in good condition; ✓ Inspect electric tools before use; ✓ Do not use electric tools in wet / damp conditions; ✓ Use personal protective equipment such as insulated gloves.
	✓ Testing ✓ Inspection ✓	✓ Electrocution ✓ Chocking ✓ Electrocution Injury ✓ Working unauthorized ✓ Miscommunication	✓ Injuries ✓ Property damages ✓	**M**	✓ Ensure that all electrical work is carried out by a competent person ✓ Emergency stop button must always be serviceable ✓ Ensure communication between employees ✓ Fire extinguisher must always be on site ✓ Implement lockout procedure ✓ Strict supervision ✓ Work to be done by a competent technician

ACTIVITY: MECHANICAL WORKS

Task	Hazard	Risk	Consequence	Rating	Controls
Strip, quote and repair and installation of pumps, pipes and valves;	✓ Heavy pumps and valves	✓ Falling	✓ Injuries ✓ Property damages	**M**	✓ Use proper lifting equipment ✓ Ensure that only the relevant people are in the work area. ✓ Ensure that lifting equipment is load tested. ✓ Only competent personnel to undertake this task
Mechanical lifting	✓ Wind / Unfavourable weather	✓ Deflection ✓ Loss of control	✓ Injuries ✓ Property damages	**H**	✓ Do not use during unfavourable weather conditions
	✓ Incompetent operator	✓ Loss of control ✓ Hitting structures and people	✓ Injuries ✓ Property damages	**H**	✓ Only trained and competent operators many operate the crane
	✓ Overloading	✓ Collapse of material	✓ Injuries ✓ Property damages	**H**	✓ Display safe working load on the crane
	✓ Faulty crane	✓ Malfunctioning	✓ Injuries ✓ Property damages	**H**	✓ Cranes to be inspected by competent persons prior to being used ✓ All faulty cranes to be tagged and locked out
	✓ Incorrect slinging	✓ Employees struck by swinging load	✓ Injuries	**H**	✓ Slinging to be done by competent persons ✓ Employees to stand clear of lifting operations
	✓ Incorrect / damaged lifting tackle	✓ Load falling on employees	✓ Injuries		✓ Inspect all lifting tackle prior to use

	OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT	
Johannesburg Water	PROJECT NUMBER:	JW OPS 077/24
	PROJECT LOCATION:	VARIOUS BULK WASTEWATER TREATMENT WORKS
	PROJECT DESCR:	REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

ACTIVITY: MECHANICAL WORKS

Task	Hazard	Risk	Consequence	Rating	Controls
Lubricating of parts	✓ Oils	✓ Contact with skin	✓ Burns ✓ Dermatitis	**L**	✓ Provide employees with gloves ✓ Provide SDS for the lubricants used
Cutting and drilling	✓ Drilling ✓ Drill bit ✓ Drill sharp metal fibres ✓ High Noise Levels ✓ Cutting Grinder/Disc ✓	✓ Vibration ✓ Cutting edges ✓ Eye penetration ✓ Finger cuts ✓ Expose to high noise level area ✓ Uncontrolled disc ✓ Sharp edges	✓ Damaged hearing ✓ Carpal tunnel syndrome ✓ Cuts/ injuries ✓ Eye irritation / blindness ✓ Injuries ✓ Eye injuries	**M**	✓ Use hearing protection when exposed to excessive noise levels (greater than 85 dB) ✓ Assess noise level with sound level meter if possibility exists that level may exceed 85dB. ✓ Rotate drilling tasks to minimize worker exposure to equipment vibration. ✓ Use right size of a drill to drill different layers of the ground ✓ Use as per SOP and manufacturer's instruction
Welding	✓ Welding equipment	✓ Poor maintenance	✓ Injuries	**M**	✓ Welding equipment is visually checked before each use;
	✓ Welding	✓ Sparks	✓ Fire	**H**	✓ Welding screens to be used
	✓ Welding	✓ Sparks	✓ Burns	**L**	✓ Fire resistant overalls and apron to be worn. ✓ Develop method statement for welding
	✓ Welding	✓ Glare	✓ Arc eyes	**M**	✓ Welding glasses to be used

ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
✓ **Working on site**	✓ Unhappy community	✓ Community coming to survey site ✓ Violence against employees	✓ Property damages ✓ Serious injuries	**H**	✓ Develop an emergency response procedure ✓ Meet with the community and all stakeholders prior to commencement of the project ✓ Have the contact details of the nearest police station / JMPD offices
	✓ Unfavourable weather conditions	✓ Exposure to temperature extremes	✓ Heat exhaustion ✓ Frost bite	**M**	✓ Provide employees with water for cooling down. ✓ Provide employees with warm jackets and gloves during winter ✓ Provide 5-minute rest periods for every 30 minutes of exposure to temperature extremes. ✓ No work to be undertaken in rainy conditions
	✓ Housekeeping	✓ Trips and falls	✓ Injuries	**M**	✓ Ensure that proper housekeeping is maintained on site at all times.
✓ **Working near open spaces**	✓ Snakes	✓ Bites ✓ Poisoning	✓ Fatalities ✓ Serious injuries	**H**	✓ Inspect the area for snakes prior to entering ✓ Conduct snake awareness training ✓ Know the do's and don'ts of what to do when coming across snakes
	✓ Bees	✓ Bites	✓ Allergic reaction	**M**	✓ Inspect the area for bees / wasps prior to entering ✓ Conduct bees awareness training ✓ Know the do's and don'ts of what to do when coming across bees
	✓ Sharp objects	✓ Getting pricked by sharp objects	✓ Tetanus ✓ Injuries	**M**	✓ All employees to get Tetanus vaccination. ✓ Provide employees with proper safety boots

ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Criminals	✓ Getting mugged	✓ Loss of personal possession	**M**	✓ Personal belongings such as phones and car keys to be safely put in pockets while working. ✓ Employees to report any suspicious activities to the local police. ✓ Equipment to be safety stored while not in use
	✓ Criminals	✓ Employees being attacked	✓ Injuries ✓ Fatalities	**H**	✓ Ensure that employees do not work in isolation. ✓ Employees to report any suspicious activities to the local police. ✓ Develop an emergency response procedure
✓ **Working on site**	✓ Open excavations (other works)	✓ Falling inside	✓ Injuries	**M**	✓ Employees to be vigilant while working on site
	✓ Water bodies / channels	✓ Falling inside	✓ Serious injuries ✓ Fatalities	**H**	✓ Employees to be vigilant while working on site ✓ Emergency procedures to be developed
	✓ Rotating equipment	✓ Entrapment ✓ Getting caught by	✓ Serious injuries ✓ Fatalities	**H**	✓ Ensure that machinery is isolated or locked out while working on it.
	✓ Wastewater / live sewer	✓ Skin contact ✓ Ingestion ✓ Splashing into eyes	✓ Waterborne diseases	**H**	✓ Provide employees with proper PPE, and ensure that the mouth, nose and eyes are covered. ✓ Vaccinate employees and ensure that they are medically fit to work in confined spaces.

ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
Working near roads inside the Works	✓ Moving vehicles and pedestrians ✓ Speeding ✓ No signage ✓ Improperly placed signage	✓ Road accidents ✓ People getting knocked down by cars	✓ Fatalities ✓ Serious injuries ✓ Property damages	**M**	✓ Adhere to traffic management procedures ✓ Ensure good communication between flagmen ✓ Obey speed limits ✓ Display correct road signage ✓ Employees should wear reflective PPE . ✓ Keep area clean & clear of obstacles.
Using hand tools and portable equipment	✓ Improper placing ✓ Unstable footing	✓ Falling on employees	✓ Injuries	**L**	✓ Provide employees with proper safety shoes. ✓ Ensure that the equipment is properly placed and balanced
Use of hand tools	✓ Repetitive movements	✓ Improper bending	✓ Back pains	**L**	✓ Training in correct posture during shovelling
	✓ Distance between employees	✓ Hitting each other with tools	✓ Injuries	**M**	✓ Ensure safe distance between employees
	✓ Damaged hand tools	✓ Contact with skin	✓ Injuries	**L**	✓ Inspect tools prior to use ✓ Provide employees with gloves
	✓ Loss of grip of tools	✓ Hitting other employees	✓ Injuries	**M**	✓ Train employees on the use of tools ✓ Provide gloves
General activities on site	✓ New employees / untrained employees	✓ Workers not informed of hazards and risks associated with tasks	✓ Injuries	**H**	✓ Site specific Induction training to be conducted on all personnel prior to commencing work.

ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
	✓	✓ Workers exposed to unknown / unidentified hazards	✓		✓ Appointed Risk Assessor to be in possession of a HIRA certificate (Hazard Identification and Risk Assessment). ✓ Task specific risk assessments to be carried out. ✓ Employees to be trained in the content of the risk assessments. ✓ Attendance registers to be in place
	✓ Community members and passersby	✓ Unauthorised entry	✓ Injuries	**M**	✓ Camp area to be fenced off to prevent unauthorised entry. ✓ Unauthorised entry and general warning signs to be displayed. ✓ Security guard to patrol the site.

RISK ASSESSMENT MATRIX

Likelihood	**Consequences**				
	Insignificant (minor problem easily handled by normal day to day processes	Minor (Some disruption possible e.g.,damage equal to R150k	Moderate (significant time / resources required. E.g., damage equal to R500k	Major (Operations severely damaged. E.g., damages equal to R1m	Catastrophic (business survival is at risk. Damage equal to R5m – 10m
Almost certain (90% chance)	High	High	Extreme	Extreme	Extreme
Likely (between 50-90%)	Moderate	High	High	Extreme	Extreme
Moderate (between 10-50%)	Low	Moderate	High	Extreme	Extreme
Unlikely (between 3-10%)	Low	Low	Moderate	High	Extreme
Rare (<3%)	Low	Low	Moderate	High	High

JOHANNESBURG WATER (SOC) LTD

MEDICAL SCREENING POLICY

JW OPS 077/24: REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

NOTICE

It is the Contractor's responsibility to ensure that medical surveillance requirements specified in the Occupational Health and Safety Act (85/1993) and Regulations and any other applicable legal and Johannesburg Water's requirements are fully complied with.

This document is meant to facilitate the Contractor's compliance to applicable requirements and does not replace the applicable legal requirements.

This document may be revised at any time to include applicable legal requirements not currently included that may come to the attention of Johannesburg Water in future. The Contractor will accordingly be responsible to comply with the revised requirements as might be necessary.

Where methods to ensure legal compliance have been specified in this document, Contractors may submit alternative detailed method statements for consideration and approval by Johannesburg Water. Johannesburg Water may, at its sole discretion, reject or accept such alternative methods.

1 PURPOSE OF THE MEDICAL SURVEILLANCE REQUIREMENTS PROCEDURE

The purpose of this Medical Surveillance Requirements Procedure is to facilitate the achievement of legal compliance relating to medical surveillance by all Consultants, Contractors, Subcontractors and suppliers that will be working on the Johannesburg Water project and to ensure that employees are fit to work in the roles that they have been employed to execute and remain so for their duration on the project site.

This document represents the minimum requirements for medical surveillance and does not replace applicable legal requirements.

2 MEDICAL SURVEILLANCE OBJECTIVES

The Johannesburg Water main objectives for medical surveillance are:

a) To ensure compliance with all applicable medical surveillance legal requirements.
b) To ensure compliance with all Johannesburg Water's requirements regarding medical surveillance.
c) To ensure that employees are fit to execute the work for which they have been employed.
d) To prevent employees from acquiring occupational diseases or illnesses.
e) To ensure early detection and treatment of occupational diseases and to prevent the aggravation of existing medical conditions.
f) To ensure that employees on departure from the project have not contracted any occupational diseases and to enable any such condition that arises to be suitably addressed.

All contractors are required to demonstrate total commitment towards the achievement of these objectives.

3 GENERAL REQUIREMENTS

3.1 The Principal Contractor shall ensure that a medical surveillance programme is implemented for all employees.

3.2 An initial health evaluation shall be carried out by an occupational health practitioner immediately after a person commences employment, where any exposure exists or may exist, which comprises:

- an evaluation of the employees medical and occupational history;
- a physical examination; and
- any other essential examination which in the opinion of the occupational health practitioner is desirable in order to enable the practitioner to do a proper evaluation.

3.3 Medical surveillance & Immunization shall be done accredited institutions or occupational health doctor, including, but not limited to:

a) Audiograms.
b) A cardio-respiratory examination, including full size chest x-rays (If lung function tests are abnormal)
c) Lung function tests.
d) Eye/ sight tests.
e) A general physical examination.
f) A review of previous medical history.
g) Blood pressure tests
h) Glucose tests
i) Vaccination (Hepatitis A & Typhoid)

Copies of all medical certificates shall be submitted to the Johannesburg Water Project Specialist or Appointed OHS Agent to prior to site establishment and before an employee is allowed to come onto site.

Specific attention shall be given to the physical and psychological fitness of people who will be required to work in elevated positions and operators of mobile machinery.

An exit medical certificate shall be obtained for all workers at the end of the contract and for all workers who leave the employment of the Contractor before the end of the Project. Copies of all

exit medical certificates shall be submitted to the Johannesburg Water Project Specialist or Appointed OHS Agent.

Medical surveillance shall address all occupational health risks to which the employee is exposed, identified through the risk assessment referred to in section 4 below.

Retention monies will be withheld if the exit medical is not complete for all employees.

The cost of all medical examinations will be borne by the Contractor as provision is made on the bill of quantities.

4 OCCUPATIONAL HEALTH RISK ASSESSMENT

4.1 The Contractor shall conduct an occupational health risk assessment prior to site establishment.

4.2 The Contractor shall ensure that, as far as is reasonably practicable, ergonomic related hazards are analyzed, evaluated and addressed in the risk assessment.

4.3 The methodology used by the contractor to assess occupational health risks associated with their activities shall be submitted to Johannesburg Water for approval by the Johannesburg Water Project Specialist or Appointed OHS Agent prior to site establishment. The methodology should take the following into consideration, among others:

a) Legal requirements.
b) Normal activities undertaken by the contractor.
c) Abnormal situations (e.g. unanticipated breakdown of equipment etc).
d) Emergency situations (e.g. fires, exposure to chemicals).
e) Changes in work procedures and methods.
f) Previous experience.

4.4 A risk register that will include the following shall be submitted to the Johannesburg Water Project Specialist or Appointed OHS Agent before site establishment.

a) All occupational health risks identified during the occupational health risk assessment.
b) A list of the occupational health risks that have been identified as being significant.

c) Reference to the method statements, measures or procedures that will be followed to either eliminate or reduce the significant risks to tolerable levels.

4.5 The Contractor shall, in writing, clearly explain how each occupational health risk assessed to be significant will be addressed to eliminate or reduce it to a tolerable level and submit it for approval by the Johannesburg Water Project Specialist or Appointed OHS Agent before site establishment. This may be through method statements or written operational control procedures. Associated responsibilities and authorities shall be clearly defined. All method statements shall reflect at least:

a) When the activities relating to the method statement will be conducted (timing).
b) Materials to be used.
c) Equipment and staffing requirements.
d) The proposed construction procedure designed to implement the relevant requirements.
e) The system to be implemented to ensure compliance with the method statement.
f) Any other information deemed to be necessary by the Johannesburg Water Project Specialist or Appointed OHS Agent and/or the contractor's responsible person.

4.6 For significant occupational health risks identified after site establishment, method statements shall be submitted to the Johannesburg Water Project Specialist or Appointed OHS Agent at least 10 working days before the start of the associated activity, when possible.

4.7 All changes to approved method statements or procedures shall be approved in writing by the Johannesburg Water Project Specialist or Appointed OHS Agent.

4.8 The contractor's Responsible Person shall retain records of any amendments and shall ensure that only the most current approved version of any method statement or procedure is used.

4.9 Every occupational health risk that is identified during the risk assessment process shall be conveyed to every employee whose work is associated with the risk. This may be done in the form of a toolbox talk but does not replace the toolbox talk entirely. Each employee shall sign to confirm an understanding of the occupational health risks in the tasks.

4.10 Occupational health risk assessments may be combined with safety and environmental risk assessments, but the consideration of occupational health issues shall be clearly reflected in the records generated and maintained.

4.11 The occupational health risk assessment process and effective implementation of measures to eliminate or reduce identified risks is the responsibility of the Contractor. Johannesburg Water will closely monitor the effectiveness of implemented measures.

Acknowledgement of JW Medical Screening Policy

Name of Contractor

I, the undersigned, hereby acknowledge that I have obtained copies of JW Medical Screening Policy and confirm that I fully understand them and the consequences of non-compliance.

Signed at …… on this …….. Day of …… 20……..

Signature of Contractor / Mandatory **Date**

---------- **----------**

Signature of 16.2 / Construction Manager **Date**

---------- **----------**

Witness 1 ……. **Witness 2 ……**

VOLUME 2

Occupational Health & Safety Specification

JW OPS 077/24

REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

Prepared by: OHS Department 65 Ntemi Piliso Street Newtown 2000 Tel: +27 11 688 1476	**PRINCIPAL CONTRACTOR:**	
	CEO (16.1 APPOINTEE):	
	TELEPHONE NUMBER:	
	FAX NUMBER	
	E-MAIL ADDRESS:	
	SIGNATURE:	

General Notification

This document forms an integral part of the Contract Specification and, in particular, shall constitute the Client's (Johannesburg Water SOC Ltd.) Occupational Health & Safety (OHS) Specification, as required by the Construction Regulations, 2014, as promulgated under the Occupational Health and Safety Act (Act no. 85 of 1993). The Specification shall furthermore be applied for the management of Mandatories performing activities for or on behalf of Johannesburg Water SOC Ltd, irrespective whether the contract work constitutes construction work or not.

The Contract Specification is contained in Volume 1 of the contract documents in Part 3: Scope of Work.

Acknowledgements
This Occupational Health & Safety (OHS) Specification was developed by the internal OHS Department for the sole use by Johannesburg Water SOC Ltd. The issue date of this OHS Specification is September 2016.

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ABBREVIATIONS

Abbreviation	Description
CR	Construction Regulations
COID	Compensation for Occupational Injuries and Diseases
DoL	Department of Labour
GAR	General Administrative Regulations
GMR	General Machinery Regulations
GSR	General Safety Regulations
HCS	Hazardous Chemical Substances
HIRA	Hazard Identification and Risk Assessment
JW	Johannesburg Water (SOC) Ltd
SDS	Safety Data Sheet
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment

PER	Pressure Equipment Regulations
SANS	South African National Standards
SABS	South African Bureau Standard
SOC	State Owned Company

DEFINITIONS

Word / Phrase	Definition
"WCL 1", "WCL 2" and "WCL 22"	Means the prescribed forms for reporting of incidents and occupational diseases referred to in the Compensation for Occupational Injuries and Diseases Act.
Competent Person	A person who has in respect of the work or task to be performed the required knowledge, training, experience and, where applicable, qualifications specific to that work or task: provided that where appropriate, qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act 67 of 2000).
Construction work	Any work in connection with: a) The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure b) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work
Contractor (inclusive of Principal Contractor)	Any organization, person, entity performing activities for or on behalf of Johannesburg Water SOC Ltd.
Corrective Action	Action to eliminate the cause of a detected nonconformity or other undesirable situation.
Employee	Any person who is employed by or works for an employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person
Employer	Any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him, but excludes a labour broker as defined in section I (1) of the Labour Relations Act, 1956 (Act No. 28 of 1956)
Hazard	Means a source of or exposure to danger.
Hazard identification	The identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed.
Incident	Means an incident as contemplated in section 24 (1) of the OHS Act 85 of 1993.
Machinery	means any article or combination of articles assembled, arranged or connected and which is used or intended to be used for converting any form of energy to performing work, or which is used or intended to be used, whether incidental thereto or not, for developing, receiving, storing, containing, confining, transforming, transmitting, transferring or controlling any form of energy
Mandatory	Includes an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or a user
Medical surveillance	Means a planned programme or periodic examination (which may include clinical examinations, biological monitoring or medical tests) of employees by an occupational health practitioner or, in prescribed cases, by an occupational medicine practitioner.
Method Statement	A document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment.

Principal Contractor	Any employer who performs work and is appointed by the Client to be in overall control and management of the contract work (inclusive of Mandatories).
SHE File	A file or other record in permanent form, containing the information required as contemplated in the S.H.E Specification Document and legal requirements applicable to work activities.
SHE Plan	A documented plan which seeks to address all hazards identified means and ways to control and eliminate such to ensure compliance to the S.H.E Specification.
Workplace	Any physical location in which work related activities are performed under the control of the organization.

1. Introduction

In terms of Section 37 of the Occupational Health and Safety Act (Act no. 85 of 1993), Johannesburg Water SOC Ltd is required to control persons/organizations conducting activities for or on their behalf (Mandatories) and the Construction Regulations promulgated under the Occupational Health and Safety Act (Act no. 85 of 1993), is requiring Johannesburg Water SOC) Ltd. to compile an occupational health and safety specification for any intended project classified as construction work and to provide the specification to prospective tenderers / Mandatories.

The dual objective of this specification is to ensure that the Mandatories and Principal Contractors (herein after called Principal Contractor (including Mandatories)) entering into a contractual agreement/relationship with Johannesburg Water SOC Ltd. achieves and maintains an acceptable level of occupational health, safety and environmental performance whilst conducting activities to perform the contract work.

This document forms an integral part of the Contract Specification and, in particular, shall be the OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION FOR CONSTRUCTION WORK. The Contract Specification is contained in Volume 1 of the contract documents. The principal and other contractors shall ensure that this specification is included with any contract/s that they may have with other contractors and/or suppliers that are engaged for the provision of labour, goods or services for this project. The Principal Contractor and its Contractors shall furthermore implement any reasonable practicable means to ensure compliance to this Occupational Health & Safety (OHS) Specification and any other applicable legislation on their organization and/or activities performed by or for them. This OHS Specification will be read in conjunction, where issued and applicable, with the Environmental Specification issued for listed activities requiring environmental authorization by a relevant authority.

Compliance with this OHS specification does not absolve the Principal Contractor from complying with any other applicable minimum legal requirement and the Principal Contractor remains responsible for the sustainable integrity of the environment and the health and safety of its employees, mandatories as well as any persons affected by activities conducted for or on behalf of Johannesburg Water SOC Ltd (SOC) Ltd..

1.1 Johannesburg Water SOC Ltd's commitment to Occupational Health, Safety & Environmental (SHE) Management

Johannesburg Water SOC Ltd is committed to responsible occupational health, safety and environmental management. This commitment is essential to protect the environment, employees, Mandatories, visitors and provide a work environment conducive to health and safety. Principal Contractors and their Contractors shall demonstrate their commitment and concern by:

- Ensuring that decisions and practices affecting occupational health, safety and environmental performance are consistent with the issued SHE specification;
- Ensuring adequate resources are made available for the effective implementation of occupational health, safety and environmental control and mitigation measures;
- Participating in hazard identification and risk assessments and design safety reviews;
- Communicating occupational health, safety and environmental management processes, strategies and control measures with all levels of employees, contractor and/or visitors;

- Ensuring visible leadership at all sites;
- Promoting and enforcing the use of correct types of Personal Protective Equipment (PPE);
- Reporting and investigation of incidents and accidents and ensuring actions are identified and implemented to prevent similar types of incidents reoccurring;
- Participating in Client audits and meetings and ensuring required actions are implemented within reasonable time frames on the site/project;
- Recognizing and commending safe work practices and coaching employees who require guidance;
- Applying and enforcing consequence management from deviations and transgressions of/from compliance to this SHE Specification noted and/or observed, where applicable;
- Carrying out safety observations, implement corrective and preventative actions and giving immediate feedback;
- Encouraging employee participation in the formulation of work instructions and safety rules.

1.2 Scope of Occupational Health, Safety and Environmental (SHE) Specification

The scope of this Occupational Health, Safety and Environmental (SHE) Specification is to address the reasonable and foreseeable aspects of occupational health, safety and environmental management, which will be affected by the contract work.

The specification will provide the requirements that the Principal Contractor and other Contractors shall comply with in order to reduce the risks associated with the contract work, and that may lead to incidents causing injury and/or ill health or degradation of the environment, to a level as low as reasonably practicable and possible.

In particular, Johannesburg Water SOC Ltd will ensure that it shall not appoint any Principal Contractor unless it is reasonably satisfied that the contractor which it intends to appoint has the necessary competencies and resources to carry out the work safely.

1.3 Omissions from SHE Specification

Where any omission from the SHE Specification is identified, applicable legal requirements will constitute the minimum standard for compliance to the relevant omission. The responsibility will be on the Principal Contractor to provide assurance to Johannesburg Water SOC Ltd on compliance to the applicable legal requirements related to the activity / task / process.

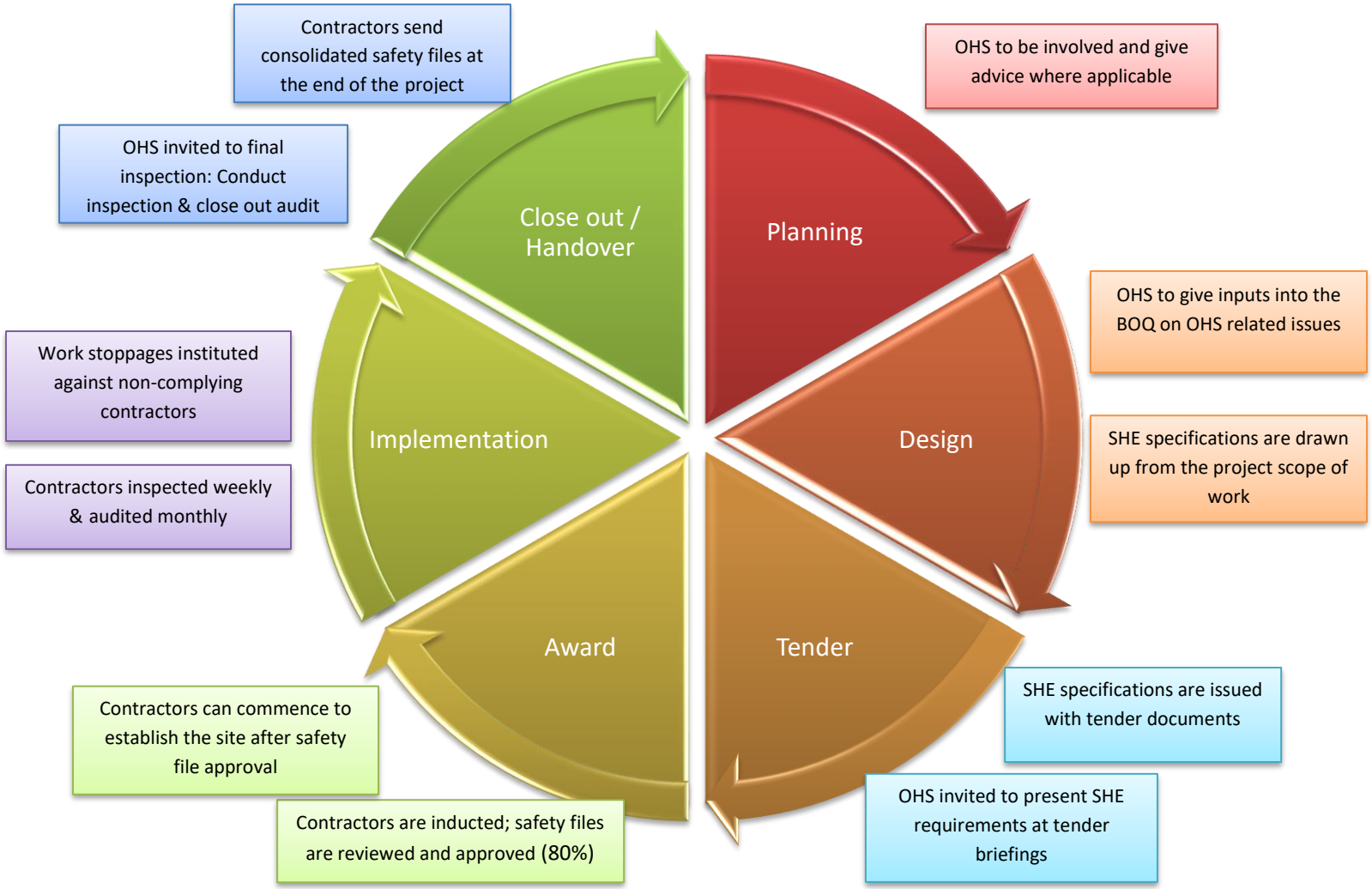
1.4 Change management

Whenever Johannesburg Water SOC Ltd identifies the need to change or review the SHE Specification, approved changes and revisions will be communicated to the Principal Contractor. A cost analysis on the implementation of the proposed changes / revisions will be calculated through a collaborative processes between Johannesburg Water SOC Ltd and the Principal Contractor – where the approved changes and/or revisions has no cost implication for the Principal Contractor the Principal Contractor will be required to accept the approved changes / revisions and ensure implementation within the SHE Plan / File framework.

2 Overview of contractor management process

The contractor management process consists of the following phases:

- Tender briefing and tender documentation;
- Competency evaluation of Principal Contractors (integrated into Supply Chain Management processes);
- Appointed contractor to attend SHE system induction;
- Preparation of SHE File by Principal Contractor;
- Evaluation of SHE File;
- Principal Contractor engagement phase;
- Project close-out and submission of consolidated Health & Safety File.


Contractors send consolidated safety files at the end of the project
OHS invited to final inspection: Conduct inspection & close out audit
Close out / Handover
Planning
OHS to be involved and give advice where applicable
OHS to give inputs into the BOQ on OHS related issues
Work stoppages instituted against non-complying contractors
Contractors inspected weekly & audited monthly
Implementation
Design
SHE specifications are drawn up from the project scope of work
Award
Tender
Contractors can commence to establish the site after safety file approval
SHE specifications are issued with tender documents
Contractors are inducted; safety files are reviewed and approved (80%)
OHS invited to present SHE requirements at tender briefings

2. SHE DOCUMENTATION

2.1 Safety file

The Principal Contractor will prepare a SHE File containing the processes / procedures and templates to be applied during the project period for the scope of work. The Principal Contractor will be evaluated during the contract period against the submitted SHE File.

Ata minimum the SHE File will contain the following documentation:

- Notification of construction work to the relevant Department of Labour (stamped on each page)
- Scope of work to be performed;
- Personnel list (Principal Contractor employees);
- OH&S / SHE Policy and other Policies;
- Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations; COID Act.
- Proof of valid registration and good standing with the Compensation Commissioner or another licensed Insurer;
- SHE Plan agreed with Johannesburg Water SOC Ltd.
- Approved risk assessments, review and monitoring plans and safe work procedures (method statements);
- A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;
- All written designations and appointments for project scope of work (CV and competency copies);
- Management structure (inclusive of OH&S responsibility & meeting structure);
- Induction training and site SHE rules;
- Occupational health and safety training matrix / plan;
- Arrangements with contractors and/or mandatories;
- Description of security measures;
- The following registers (as applicable to contract scope of work):
    - Accident and/or incident notifications, investigation & control register;
    - Occupational health and safety representatives inspection register;
    - Template for entry into confined space;
    - Toolbox talks pro-forma;
    - Fall protection inspections template;
    - First-aid box content template;
    - Record of first-aid treatment template;
    - Fire equipment inspection and maintenance template;
    - Ladder inspection template;
    - Machine safety inspections template (including machine guards, lock-outs etcetera);
    - Inspection templates for lifting machines and –tackle (including daily inspections by drivers/operators);
    - Inspection templates of scaffolding;
    - Inspections templates of structures;
    - Templates of issuing of Personal Protective Equipment;
    - Monthly reporting and recording of statistics templates;
    - Keeping of any other record in terms of applicable legislation falling within the scope of SHE Legislation applicable to the project and the Principal Contractor / Contractor's activities and organization.
- Emergency preparedness and response programmes;
- Medical examination tests

2.2 Principal contractor appointment

- The principal contractor will be appointed in terms of Construction Regulations 2014, Reg 5(1) k
- All responsibilities imposed on the contractor by the Regulations will be applicable

- The duties will include:
  a) Prepare a site specific SHE file based on client SHE specification and project scope.
  b) Have an updated Letter of Good standing.
  c) Ensure the necessary legal appointment letters are compiled and signed by affected parties.
  d) Ensure SHE file submitted before work commences to Johannesburg Water for evaluation and approval.
  e) Must ensure an organizational medical programme for its employees is in place. This must address pre-employment, periodic examination, and exit examinations.
  f) Ensure all employees undergo medical examination and are declared fit for the job they are employed for by a Medical Practitioner.
  g) All employees undergo his control undergo company specific induction and Johannesburg water induction.
  h) Ensure before work commences employees are trained on the health and safety risks associated with the work they are conducting.
  i) Ensure employees are trained on company procedures, policies, method statements and informed of the Johannesburg Water SHE requirements as per the specification.
  j) Ensure legislative requirements are complied with during the duration of the contract and ensure that their employees comply also.
  k) Sign the 37 (2) Agreement between Johannesburg Water and themselves before any work commences and kept on their SHE file.
  l) Ensure that 37(2) Agreement(s) are signed between themselves and their sub-contractors.
  m) Ensure that sub-contractors have valid Compensation Commissioner Letter of Good Standing.
  n) Have a disciplinary procedure to address those found to be transgressing requirements of SHE specification, SHE plan, site rules or any other OHS act and its Regulation requirement.
  o) Prevent any employee or visitor who is under the influence of any alcohol or drugs (in state of intoxication) from being allowed to site.
  p) Ensure the safety of employees who are taking legal medication.
  q) Must hand over a consolidated SHE file at the end of the contract.
  r) Stop his/her employees who are doing unsafe acts or who are creating an unsafe environment.
  s) Investigate all incidents and report to Johannesburg water and ensure all reportable incidents as per the legislative requirement are complied with.
  t) Ensure work is supervised by competent personnel and that work is done by competent employees.
  u) Ensure pre-task risk assessment is done by a competent person and that employees are informed of the pre-task risks and the risk control measures.
  v) Ensure tool box talks are conducted to communicate SHE issues in connection to the work being done and any other aspects.
  w) Ensue that appointed personnel as per the SHE file are executing their duties as per the legal appointment.
  x) Ensure first aid kit is made available in case of any emergency.
  y) Ensure that housekeeping is maintained in good condition and that materials are store/stacked properly is designated areas.
  z) Have sufficient waste receptacles and ensure the correct disposal of the different wastes.
  aa) Proof of hazardous waste disposal to be requested from disposal site and to be kept inside SHE file.
  bb) Take reasonable steps to ensure that each appointed sub-contractor health and safety plan is implemented and maintained on the site and SHE File documentation is up to date.
  cc) Stop any work from being executed which is not in accordance with the client's health and safety specification and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons.
  dd) Must maintain an up to date list of all the sub-contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done; and
  ee) Ensure that all his or her employees have a valid medical certificate of fitness.

2.3 37.2 Agreement

- Johannesburg Water will enter into a 37(2) Agreement with all the appointed contractors

- A copy of the 37(2) Agreement must be kept in the SHE file of the contractor at all times.
- It is the responsibility of the contractor to ensure that there are 37(2) agreements between themselves and all their appointed sub-contractors.

2.4 SHE Plan

- The contractor shall prepare a SHE plan to address and manage all applicable sources of risk that are identified during the execution of the project. The SHE plan shall incorporate the requirements as listed in the SHE specification.
- A copy of the SHE plan shall be submitted together with SHE file for review and approval.
- It is the contractor responsibility to ensure they sub-contractor compiles a SHE plan that in line with the SHE specification requirement of Johannesburg Water.

2.5 Legislative framework

All contractors shall comply with legislation pertaining to this contract, including but not limited to:

- Constitution of the Republic of South Africa
- Occupational Health and Safety Act and its associated Regulations
- National Environmental Management Framework Legislation
- National Road Traffic Act
- Applicable South African National Standards (SANS)
- Compensation of Occupational Injuries and Diseases Act (COID)
- Local by-laws and provincial ordinances

2.6 SHE Policy

A SHE policy is a statement of intent and a commitment by the organization Chief Executive or Managing Director (OHS Act 16(1) appointee) in relation to requirements applicable to their Safety, Health and Environmental legal obligation, relevant SHE roles and responsibilities, and contractual obligations to the Client.

The contractor and their sub-contractor companies shall each have a documented SHE Policy authorized by their Chief Executive/Managing Director (OHS Act Section 16 (1) Appointee). The SHE Policy must meet the following minimum requirements;

- Organizational Mission and Goal.
- State the overall SHE objectives within the project.
- Show commitment to the prevention of injuries and ill-health.
- Show commitment to the protection of environment and the conservation of natural resources.
- Must be reviewed at predetermined intervals, or when there is change in work process, serious incident occurs.
- The SHE Policy must be in line with ISO 45001 and ISO 14001 requirements and guidance documentation.
- Must be authorized by contractor CEO.

2.7 Appointments and competencies

- The contractor and its appointed sub-contractor must make the relevant legislative and non-statutory appointments, which must be maintained valid for the entire contract duration.
- All appointees shall be suitably trained and certified competent for the responsibilities they are assigned for.
- Copies of all relevant appointments and the relevant competence certificates must be kept in the relevant SHE file.

2.8 Supervision of construction work

- The principal contractor shall ensure that the construction manager and construction health and safety officer are appointed for a ***single site*** on a full time basis.

- Where the total number of employees on site exceeds **75, the contractor shall appoint 2 Safety Officers and an Assistant Construction Manager.**
- In the event that the appointed Safety Officer / Construction Manager cannot come to work for more than 5 days, the contractor must ensure that a substitute is appointed until they are back on site.
- JW should be informed in writing of the absence of the above-mentioned on site.

Appointment index

Appointment	Legislative Ref	Competency requirements (Min)
Alternate Construction Manager	CR 8.1	N.Dip Eng + 4yrs exp
Assistant Construction Manager	CR 8.2	N.Dip Eng + 4yrs exp
Assistant Construction Supervisor	CR 8.8	-
Bulk mixing plant	CR 20	Certificate
Confined Space Supervisor	GSR 5	Certificate + Proven experience
Construction Manager	CR 8.1	N.Dip Eng + 4yrs exp Full time on site
Construction Health , Safety & Environmental Officer	CR 8.5 & JW Requirement	N.Dip Safety + 2yrs exp; OR N.Dip Enviro + 3yrs exp; OR NEBOSH / SAMTRAC + 4yrs exp Full time on site Experience in enviro / certificate **Fully registered with SACPCMP as CHSO *(if permit is required)***
Construction supervisor	CR 8.7	3 yrs experience
Construction vehicle & mobile plant supervisor	CR 23.1	Certificate
Electrical installation and appliances inspector	CR 24	
Emergency, security and fire coordinator	CR 29	Certificate
Excavation supervisor (including piling)	CR 13	3yrs exp / N.Dip building
Fall protection supervisor	CR 10.1	Certificate
First-aiders	GSR 3	Certificate
Fire fighting equipment inspector	CR 29	Certificate
General Machinery Supervisor	GMR 2.1/7	GCC (GMR 2.1)/ 3yrs exp (GMR 2.7)
Temporary work supervisor (Formwork)	CR 12.2	N.Dip building + 4yrs exp
Hazardous chemical substances supervisor	HCS Regs	Certificate
Incident investigator	GAR 9.2	Certificate
Ladder inspector	GSR 13A	-
Lifting machines and equipment inspector	DMR 18.5	Certificate + 3yrs experience
Materials hoist inspector	CR 19.8	Certificate
Occupational health and safety committee	OHS Act 19	-
Occupational health and safety representatives	OHS Act 17	Certificate

Risk assessor	CR 9.1	Certificate
Stacking and storage supervisor	CR 28	Certificate
Structures supervisor	CR 11.2	N.Dip building + 4yrs exp
Suspended platform supervisor	CR 17.1	Certificate
Welding supervisor	GSR 9	Certificate

2.9 Insurances

- The principal contractor and all his appointed contractors shall be registered with an appropriate compensation commissioner and have available a valid letter of good standing at all times.
- The obligation lies with the contractor to ensure that the Letter of Good Standing remains valid throughout the entire duration of the project.
- A copy of the said letter must be filed in all SHE files and made available during inspections and audits.

2.10 Costing for SHE

The contractor is responsible for ensuring that SHE costing is taken into consideration for the entire project/contract as this will ensure they comply with the SHE legislative requirements.

2.11 Sub-contractors

- Whenever the Principal Contractor appoints contractors or sub-contractors, it is a requirement that an Occupational Health and Safety Act (Act no. 85 of 1993) Section 37(2) agreement (i.e. Agreement with Mandatory) is entered into between the Principal Contractor and Contractors.
- The Principal Contractor will ensure that all appointed contractors comply with the Johannesburg Water SOC Ltd SHE Specification requirements.
- The Principal Contractor will establish a procedure on sub-contractor management and assurance on compliance to the established procedure will be provided to Johannesburg Water SOC Ltd on a monthly basis.
- Principal Contractors are required to formally notify Johannesburg Water SOC Ltd before appointing subcontractors.
- Johannesburg Water SOC Ltd shall approve all specialist subcontractors to be appointed and/or engaged by the Principal Contractor.

The Principal Contractor shall:

- Ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
- Appoint each contractor in writing for the part of the project on the construction site;
- Take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;
- Ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
- Stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
- Include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done; and
- Ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

2.12 Notification of construction work

- There will not be a requirement for submitting a notification of construction work to Department of Employment and Labour.
- The Construction Work Permit will be applicable instead.

2.13 Construction work permit

- Not applicable

3. ORGANISATIONAL STRUCTURE

- The contractor shall develop and submit together with SHE file an organizational organogram related to the contractor, listing all the levels of responsibility from the Chief Executive down to the supervisor(s) responsible for the project.
- The organogram diagram must list all relevant positions, names of appointees and legal appointments.
- The contractor is responsible for updating the organogram timeously when there are changes to the appointments.
- All appointed sub-contractors are also required to compile their own organograms.

4. COMMITMENT TO SHE

- Visible commitment is essential to providing a safe working environment.
- Managers, supervisors and employees at all levels must demonstrate their commitment by being proactively involved in the day to day SHE operations.
- Legislation requires that each employee takes reasonable care of themselves and their fellow workers

5. HIRA

Annexure 1: List of possible hazards emanating from projects and activities conducted for or on behalf of Johannesburg Water SOC Ltd includes an assessment of site specific health and safety hazards and risks and environmental aspects and impacts that have been identified by Johannesburg Water SOC Ltd as possibly applicable to the contract work for this project. It is by no means exhaustive and is offered as assistance to the tenderers and contractors.

Development of risk assessments

Every Contractor performing construction work shall, before the commencement of any construction work or work associated with the construction work, and during construction work, ensure that a risk assessment is undertaken by a competent person, appointed in writing, and the risk assessment shall form part of the SHE plan to be applied on the site. Risk assessments shall identify occupational health and safety hazards and risks and environmental aspects and impacts emanating from the activity to be performed by the Principal Contractor / Contractor.

The risk assessment (inclusive of impact assessment) shall include (at a minimum):

- Identification of the relevant Johannesburg Water SOC Ltd Project with regard to JW Number, Project name and area;
- Date on which risk assessments were conducted / reviewed;
- The identification of the risks / hazards and aspects / impacts to which persons may be exposed to per activity;
- The analysis and evaluation of the risks / hazards and aspects / impacts identified;
- Existing control measures and proposed corrective measures;
- A plan to review the risk assessments as the work progresses and changes are introduced;
- Identification of significant risks (e.g. high; exceeding 75%);
- A documented plan of Safe Working Procedures (SWP)', and its relevance to the risk assessment, inclusive of method statements, to mitigate, reduce or control the risks and hazards that have been identified;
- A plan to monitor the application of the Safe Working Procedures (SWP);
- Signature of appointed competent person conducting risk assessment; and

- Signature of approval by Principal Contractor management and employees involved in risk assessment.

Based on the risk assessments, the Principal Contractor must develop a set of site-specific occupational SHE rules that will be applied to regulate the health, safety and environmental hazards/aspects of the construction work.

The risk assessments, together with the site-specific occupational health and safety rules, must be submitted to Johannesburg Water SOC Ltd before mobilisation on site commences. These will be included in the SHE plan. The Contractor shall ensure through his risk management process the hierarchy of controls stipulated as follows, are implemented:

- ***Eliminate*** - The complete elimination of the hazard.
- ***Substitute*** - Replacing the material or process with a less hazardous one.
- ***Redesign*** - Redesign the equipment or work process.
- ***Separate*** - Isolating the hazard by guarding or enclosing it.
- ***Administrate*** - Providing control such as training, procedures etc.
- ***Personal Protective Equipment (PPE)*** - Use of appropriate and properly fitted PPE where other controls are not practical. (PPE as the last resort)

The Principal Contractor will be required to carry out the following three forms of risk assessment:

- Baseline risk assessment;
- Issue based risk assessment;
- Continuous risk assessments.

Baseline risk assessments

The Principal Contractor is required to develop a baseline risk assessment taking the resources, competency levels, nature and scale of their organization into consideration for submission during SHE File evaluation phase. The hazards and risks to which persons, plant, vehicles and facilities may be exposed during the construction should be identified and evaluated. The aspects and impacts resulting in environmental pollution or degradation should also be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment. The effectiveness of the measures defined and the baseline risk assessment prepared shall be monitored and reviewed from time to time to ensure that it remains relevant and accurate.

Issue based risk assessments

The Contractor will be required to carry out separate risk assessments during construction of the project when methods and procedures are varied, for example when:

- Designs are amended;
- New machines are introduced;
- Plant is periodically cleaned and maintained;
- Plant is started-up or shut-down;
- Systems of work change or operations alter;
- Indents or near-misses occur; or
- Technological developments invalidate prior risk assessments.

Continuous risk assessments

The Occupational Health and Safety Act (Act no. 85 of 1993) specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk free environment on an on-going basis. This is achieved by continuous risk assessments, a form of risk assessment that takes place as an integral part of day-to-day management. Examples of continuous risk assessments include:

- Maintaining general hazard awareness, and
- Pre-work risk assessments / Daily Safety Task Instructions.

Occupational health and safety risks or environmental impacts that are identified during the risk assessment process shall be communicated before the commencement of the said activity to every employee whose work is associated with the risk. Each employee shall sign to confirm understanding of the safety, health or environmental risks in the tasks.

Review of risk assessments

The Principal Contractor is required to review the hazards identified, the risk assessments and the Safe Work Procedures as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and/or processes. Revisions to the approved risk assessments and Safe Work Procedures will be presented at each production planning and progress meeting.

Risk assessments are to be reviewed whenever there is change on the scope of work, process, and accidents or when required by Johannesburg Water SOC Ltd

The Principal Contractor must provide Johannesburg Water SOC Ltd, other contractors and all other concerned or affected parties with copies of any changes, alterations or amendments to risk assessments and Safe Work Procedures within 14 days of such changes.

6. SAFE WORK PROCEDURES / METHOD STATEMENTS

Method statements or written safe work procedures shall be documented for all high risk activities:

- Design change or scope change/addition
- Change in job or task
- Introduction of new machinery, equipment or substance.

Method statements or written safe work procedures shall identify following:

- Tasks that are to be undertaken
- The hazards and associated risks of the task(s)
- The control measures for the task(s)
- The equipment and substances that are associated with task(s)
- Any training or qualification needed to do the task
- Personal protective equipment to be worn.

7. INCIDENT MANAGEMENT

7.1 Reporting of accidents and incidents

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he:

- Dies
- Becomes unconscious
- Loses a limb or part of a limb
- Is injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he was usually employed

Or where -

- A major incident occurred
- The health or safety of any person was endangered
- Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

to Johannesburg Water SOC Ltd within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993) and General Administrative Regulations), except that, where a person has died, has become unconscious for any reason

or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Johannesburg Water SOC Ltd and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail.

- All other reports required by this specification must also be completed. Reporting of accidents / incidents to Johannesburg Water SOC Ltd will be on the prescribed format.
- The Principal Contractor is required to provide Johannesburg Water SOC Ltd with copies of all statutory reports required in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) within 7 days of the incident occurring.
- The Principal Contractor is required to provide Johannesburg Water SOC Ltd with copies of all internal and external accident/incident investigation reports, within 7 days of the incident occurring.

7.2 Accident and incident investigation

- The Principal Contractor is responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that they had to receive medical treatment other than first aid.
- The results of the investigation are to be entered into the accident and/or incident register. The Principal Contractor is responsible for the investigation of all incidents, including those described in Section 24 (1) (b) and (c) of the Occupational Health and Safety Act (Act no. 85 of 1993) and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.
- The Principal Contractor is responsible for the investigation of all road traffic accidents, related to the construction activities, and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.
- Johannesburg Water SOC Ltd reserves the right to hold its own investigation into an incident or call for an independent external investigation.

7.3 Close out

- All incident investigation reports will be closed out once all the recommendations to prevent further incidents have been implemented.
- A copy of the investigation report must be handed to JW Safety Officer conducting the investigation.

8. MEDICAL SCREENING REQUIREMENTS

- The Principal Contractor shall ensure that a medical surveillance programme is implemented for all employees.
- An initial health evaluation shall be carried out by an occupational health practitioner immediately, before after a person commences employment, where any exposure exists or may exist, which comprises:
  - an evaluation of the employees medical and occupational history;
  - a physical examination; and
  - any other essential examination which in the opinion of the occupational health practitioner is desirable in order to enable the practitioner to do a proper evaluation.
- Medical surveillance and immunisation shall be done accredited at / by institutions or occupational health personnel, including, but not limited to:
  - Audiograms.
  - A cardio-respiratory examination / Lung function test;
  - Chest X-rays
  - Eye/ sight tests.
  - A general physical examination;
  - A review of previous medical history.
  - Glucose levels

- Blood pressure

- An entry medical certificate shall be obtained for all workers prior to commencing with site activities from approved medical institution. Copies of all medical certificates shall be retained in the SHE File prior to site establishment and before an employee is allowed to come onto site.
- Specific attention shall be given to the physical and psychological fitness of people who will be required to work in elevated positions and operators of mobile machinery.
- An exit medical certificate shall be obtained for all workers at the end of the contract and for all workers who leave the employment of the Contractor before the end of the Project. Copies of all exit medical certificates shall be submitted to the Johannesburg Water SOC Ltd Project Specialist or Appointed OHS Agent.

9 EMERGENCY MANAGEMENT

The Principal Contractor must appoint a competent person to act as emergency controller and/or coordinator.

The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that Johannesburg Water SOC Ltd may have in place.

In the event where a contractor incorporates the services of a 3rd party service provider for the provision of Emergency Response Services, the following criteria must be met:

- Identification of 3rd party emergency response services (organization & contact details);
- Notification of contractor to 3rd party emergency response service of incorporation of services into contractor's emergency response plan (written agreement / signed letter).

The Principal Contractor and the other contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarise employees with them.

First-aid

The Principal Contractor must provide first-aid equipment (including a stretcher) and have qualified first-aider(s) on site as required by General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993).

The contingency plan of the Principal Contractor must include arrangements for the speedy and timeous transporting of injured and/or ill person(s) to a medical facility or of getting emergency medical aid to person(s) who may require it.

The Principal Contractor must have written arrangements in place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employees.

10 SHE TRAINING

All employees in jobs requiring training in terms of the Occupational Health and Safety Act (Act no 85 of 1993) and any other applicable legislative requirements are to be in possession of valid proof of training. Other occupational health, safety and environmental training requirements of the Occupational Health and Safety Act (Act no 85 of 1993) and Construction Regulations can include:

- General induction;
- Site and job specific induction, including visitors;
- Occupational health and safety representatives;
- Training of the legal and nominated appointees;
- Operators and drivers of construction vehicles and mobile plant;
- Basic fire prevention and protection;
- Basic first-aid;
- Storekeeping methods and safe stacking; and

- Emergency planning and coordination
- Incident investigation
- Risk Assessment
- Planned job observations (supervisors)
- Emergency planning and coordination
- Incident investigation
- Risk Assessment
- Formwork
- Steel fixing
- Working at heights
- Confined space entry
- Fall protection planning

All operators, drivers and users of construction vehicles, mobile plant and other equipment are to be in possession of valid proof of training and, where applicable, valid licenses.

12.1 General Job training

The contractor is required to ensure that before an employee commences work their direct supervisor or line manager who is responsible for the employee has informed the employees of his scope of authority, hazards and risks associated with the work to be performed as well as the safety control measure(s). This will involve discussion in connection with ay work standard, job description or company policy or procedure.

12.2 Awareness and promotion

The Principal Contractor is required to have a promotion and awareness programme in place to create an occupational health and safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks;
- Posters;
- Videos;
- Competitions;
- Suggestion schemes;
- Participative employee activities such as “occupational health and safety circles”.

The Principal Contractor is, at a minimum, required to provide awareness programmes to employees on the following:

- General Health and Safety Awareness
- Environmental Awareness;
- HIV / AIDS awareness.

12.3 General competence requirement

The Principal Contractor shall ensure that his personnel and other contractors’ personnel are trained and competent to carry out work safely and without risk to health has been completed before work commences. The Principal Contractor shall ensure that follow-up and refresher training is conducted as the work progresses and whenever the scope or nature of the work changes.

A “**competent person**” in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered in terms of the provisions of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995), these

qualifications and training shall be deemed to be the required qualifications and training. It is the responsibility of the Contractor to determine whether any appropriate qualifications and training are registered in terms of the provisions of the South African Qualifications Authority Act.

Records of all training must be kept in the SHE File. The contents of the file will be audited from time to time.

At a minimum, the Principal Contractor will provide training on Safe Work Procedures / Safe Operating Standards to personnel responsible for performing the related task. Records of training on Safe Work Procedures / Safe Operating Standards will be retained. Competence and skill levels by the employees responsible for performing the task on the implementation of the Safe Work Procedures / Safe Operating Standards will be measured through Planned Job Observations.

12.4 Site-specific induction training

The Principal Contractor will be required to develop a project specific induction-training course based on the baseline risk assessment for the contract work. He will ensure that all his employees and other contractors and their employees have received training on the submitted induction-training programme.

All employees of the principal and other contractors are to be in possession of proof (on person) that they have attended a site-specific occupational health and safety induction-training course.

No contractor shall allow or permit any employee, visitor or any other person to enter the site, unless such employee or person has undergone health, safety and environmental induction training pertaining to the hazards prevalent on the site at the time of entry.

Where the Principal Contractor is required to operate within Johannesburg Water SOC Ltd Depot's the Principal Contractor will ensure that all employees undergo the Johannesburg Water SOC Ltd induction.

11 PPE REQUIREMENTS

- The Principal Contractor is required to continuously identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.
- The Principal Contractor will establish a Personal Protective Equipment Policy and a Personal Protective Equipment study will be conducted to determine the types of Personal Protective Equipment (PPE) to be supplied related to the hazards and risks emanating from the tasks.
- Cognisance shall be given to the gender of individuals required to where PPE; size required by the employee and size issued.
- Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.
- Where it is not possible to create an absolutely safe and healthy workplace the Principal Contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.
- It is a further requirement that the Principal Contractor maintains the equipment, instructs and trains the employees in the use of the equipment and ensures that the employees use the prescribed equipment.
- Employees do not have the right to refuse to use and/or wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear the prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition(s) for which

the equipment was prescribed. An alternative solution has to be found that may include relocating the employee.

- The Principal Contractor may not charge any fee for protective equipment prescribed by him but may charge for equipment under the following conditions:
  - Where the employee requests additional issue in excess of what is prescribed;
  - Where the employee has patently abused or neglected the equipment leading to early failure; and
  - Where the employee has lost the equipment.

All employees shall, as a minimum, be required to wear the following personal protective equipment on any of Johannesburg Water SOC Ltd's projects:

- Protective overalls with reflective strips;
- Safety boots (Steel toe cap with steel midsole or equivalent)
- Safety vests
- Protective headwear; and
- Eye, face and ear protection.
- Safety harness
- Gloves
- NO SHORTS OR DRESSES WILL BE ALLOWED ON SITE!!!

All Personal Protective Equipment will clearly display the branding components of the Principal Contractor's organization (e.g. Name of Organization, logo).

12 DISCIPLINARY PROCESSES

- The contractor is required to implement disciplinary process in order to enforce compliance with requirements.
- All sub-contractors are required to have the same.

13 SITE RULES

- The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the Health and Safety Plan and associated aspects of the construction.
- When required for a site by law, visitors and non-employees upon entering the site shall be issued with the proper Personal Protective Equipment (PPE) as and when necessary**.**

14 PUBLIC HEALTH AND SAFETY

The Principal Contractor is responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from the construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. This includes:

- Non- employees entering the site for whatever reason;
- The surrounding community; and
- Passers-by the site.
- The Principal Contractor shall organize the site in such a manner that pedestrians and vehicles can move safely and without risks to health, including sufficient and suitable traffic routes and safe walkways with relevant signage.
- Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times.
- All non-employees entering the site must receive induction into the hazards and risks of the site and the control measures to be observed.

- The Stakeholder Relations Specialist will be the link between Johannesburg Water SOC Ltd and the community to ensure relevant responsibilities are fulfilled and positive relationships with the community are maintained.
- Where activities are performed close to public routes, the Principal Contractor will establish a traffic management plan incorporating the requirements of relevant by-laws. At a minimum, barricading, warning signage and flagmen will be provided to ensure the protection of workers from vehicles in transit. Where required, the Principal Contractor will interact with the local traffic department to establish minimum requirements to be implemented on public routes.
- Where roads will be closed proper signage including the following will be posted:
    - Road closed
    - Detour
    - Keep left / right
    - Slow down
    - Deep excavation
    - Delineator
    - Road work ahead

15 REFUSAL TO WORK

- Section 14 of the OHS Act states that employees shall carry out any lawful orders given to them, suggesting that they have the right to refuse to obey any unlawful order or work instruction.
- In terms of legal and JW requirements, if an employee has reasonable belief that the work to be carried out is likely to endanger themselves or other persons in any way, he/she has the right to refuse to work.
- An employee may also refuse to work in term of Section 29 of NEMA, if the work would result in imminent and serious threat to the environment.
- All contractors shall ensure that their employees are conversant with hazards associated with their work and work environment, and be aware of the precautionary measures to take.
- The contractor must ensure that all refusals to work are investigated promptly and resolved timeously.

16 SECURITY

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must, amongst other, include the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of security rules and procedures and maintain these throughout the construction period.

The Principal Contractor shall:

- Provide a guardhouse for security personnel. The guardhouse should be in good condition and at-least meet minimum requirements as per Environmental Regulations for Workplaces as promulgated under the Occupational Health and Safety Act (Act no. 85 of 1993).
- Supply an access card containing the name, surname, employee number and photograph for all appointed employees (full or part time) for the site.
- Ensure that no person enters the construction site without wearing the necessary Personal Protective Equipment (PPE).
- Ensure that no children are allowed on the construction site.
- Ensure that no family members are sleeping over on the construction site.
- Ensure that no pets are allowed on the construction site.

17 ACCOMMODATION ON SITE

No employees shall be accommodated on site.

18 WELFARE FACILITIES

The provision of toilets for each sex is required in terms of the National Building Regulations and Construction Regulation 28. Chemical toilets are allowed instead of the water borne sewerage type. Toilets have to be provided at a ratio of 1 toilet per 30 workers. The Principal Contractor shall provide flushing toilets on the construction premises.

- At least cold-water showers for each sex have to be provided at a ratio of 1 shower per 15 workers.
- Some form of screened off changing facility must be provided separately for each sex.
- Some form of eating facility sheltered from the sun, wind and rain must be provided.

The employer needs to provide his employees with the following:

- Potable water for drinking;
- Water and soap for hand washing
- Toilet paper

19 COMPLIANCE MONITORING

19.1 Inspections

- Contractors will be inspected at least once per week by the JW Project Inspectors.
- Feedback of the inspections will be issued immediately on work instructions, and a formal report sent within 7 days of conducting the inspection to all relevant stakeholders.
- Johannesburg Water SOC Ltd. reserves the right to conduct other ad-hoc assessments and inspections as deemed necessary.
- This may include, amongst other measures, site safety walks. Corrective actions will be identified by Johannesburg Water SOC Ltd. and the Principal Contractor's representative and implemented by the Principal Contractor (at no cost to Johannesburg Water SOC Ltd.) to ensure SHE Performance improvement.

19.2 Monthly audits

- Monthly audits will be conducted within periods not exceeding 30 days.
- The Principal Contractor is to conduct his own monthly internal audits and inspections to verify compliance with his own occupational health and safety plan and management system as well as compliance with the requirements of the Johannesburg Water SOC Ltd. SHE Specification.
- The Principal Contractor will also assess and inspect the compliance of other contractors under its control. Management members of the Principal Contractor will be involved in the internal assessments and inspections.

19.3 Monthly compliance rating

A monthly compliance rating will be calculated for each Principal Contractor as per a formula determined by Johannesburg Water SOC Ltd focussing on or incorporating outcomes of assurance (e.g. monthly audit), operational (e.g. behavioural based safety inspection) assessments and other requirements, as necessary. Johannesburg Water SOC Ltd reserves the right to adjust the monthly compliance calculation formula as and when required – each revision of the monthly compliance calculation formula will be communicated to the Principal Contractor before implementation.

Each Principal Contractor is required to maintain a minimum compliance rating of 93% (Ninety Three Percent).

Scoring	Classification	Classification description

93% -100%	Good	Substantial compliance
80% -92%	Average	Compliance status needs to be improved
60% - 79%	Poor	Methods to ensure compliance require substantial improvement - operations with substantial non-compliance risks
<60%	Very poor	Methods to ensure compliance failed completely - troubled operation with severe non-compliance risks

19.4 Work stoppages

Work stoppages will be identified for 2 (two) types of work stoppages to be implemented:

- Overall work stoppage – the Principal Contractor and its Contractors are not allowed to continue with any type of construction / site work up until the work stoppage has been closed-out;
- Activity work stoppage – The Principal Contractor and its Contractors are not allowed to continue with the specific activity / task / job up until the work stoppage has been closed-out.

Overall work stoppages will be issued where non-conformances are identified against the criteria in the following table.

NR	DESCRIPTION OF AUDIT NON-CONFORMANCE / NON-COMPLIANCE
1	**NOTIFICATION OF CONSTRUCTION WORK**
1.1	Local Department of Labour not notified of construction work before commencement of construction activities
1.2	Notification of construction work not stamped by local Department of Labour (no faxed copies)
1.3	Copy of notification of construction work not available on site
2	**PROOF OF REGISTRATION WITH COMPENSATION COMMISSIONER**
2.1	Proof of registration with Compensation Commissioner or other insurer not available
2.2	Registration with Compensation Commissioner or other insurer not valid and up-to-date
3	**POLICY COMMITMENT & SHE SPECIFICATION**
3.1	SHE Plan not compiled, approved by contractor management and available on site
4	**SECTION 37(2) AGREEMENT**
4.1	Signed section 37(2) Agreement not signed and available on site
5	**RISK ASSESSMENTS**
5.1	Risk assessments not developed/ not applicable to scope of work issued by Client
6	**CONSTRUCTION MANAGER**
6.1	No construction manager appointed / available on site
6.2	Appointed construction manager does not meet requirements
6.3	Proof of competency not available on-site
7	**SITE SAFETY OFFICER**

NR	DESCRIPTION OF AUDIT NON-CONFORMANCE / NON-COMPLIANCE
7.1	No safety officer appointed/ available on site
7.2	Safety officer does not meet requirements
8	**SHE FILE**
8.1	No file on site

Activity work stoppages will be issued where non-conformance are identified per activity where the health and safety of employees or the public is compromised.

20.4 Non-compliance management process

The following actions will be instituted where non-conformances are identified in terms of compliance to relevant legislative requirements and the Johannesburg Water SOC Ltd SHE Specification.

CRITERIA	ACTION TO BE INSTITUTED	RESPONSIBLE PARTY
Compliance rating: 93-100%	Non-conformance closure	Principal Contractor / Contractor
Compliance rating: 80-92%	Letter of compliance improvement to Principal Contractor	Johannesburg Water SOC Ltd
	Non-conformance closure	Principal Contractor / Contractor
Compliance rating: 60-79%	Non-compliance hearing	Johannesburg Water SOC Ltd
	Letter of commitment for performance improvement	Principal Contractor / Contractor
	Non-conformance closure	Principal Contractor / Contractor
Compliance rating: <60%	Non-compliance hearing	Johannesburg Water SOC Ltd
	Letter of commitment for performance improvement	Principal Contractor / Contractor
	Non-conformance closure	Principal Contractor / Contractor
	Supply Chain Management to be informed of non-compliance standing	Johannesburg Water SOC Ltd
3 x Work stoppages	Non-compliance hearing	Johannesburg Water SOC Ltd
	Letter of commitment for performance improvement	Principal Contractor / Contractor
	Non-conformance closure	Principal Contractor / Contractor
	Supply Chain Management to be informed of non-compliance standing	Johannesburg Water SOC Ltd
3 x Non-conformance to <93% monthly compliance rating	Non-compliance hearing	Johannesburg Water SOC Ltd
	Letter of commitment for performance improvement	Principal Contractor / Contractor

CRITERIA	ACTION TO BE INSTITUTED	RESPONSIBLE PARTY
	Non-conformance closure	Principal Contractor / Contractor
	Supply Chain Management to be informed of non-compliance standing	Johannesburg Water SOC Ltd
3 x consecutive repeat findings	Non-compliance hearing	Johannesburg Water SOC Ltd
	Letter of commitment for performance improvement	Principal Contractor / Contractor
	Non-conformance closure	Principal Contractor / Contractor
	Escalation to SCMU & CAPEX	Johannesburg Water SOC Ltd

20 OPERATIONAL REQUIREMENTS

20.1 EXCAVATIONS

- Where excavations will exceed 1.5 m in depth the contractor will be required to submit a method statement to Johannesburg Water SOC Ltd for approval before commencing with the excavation and Johannesburg Water SOC Ltd will issue a permit to proceed once the risk assessment and method statement is approved.
- Excavations must be limited to 100m per day, or equated to the amount of work to be done for the day.
- All open excavations shall be closed within 3 days of excavation. No excavation will remain open beyond 3 days or during holidays.
- Excavation work must be carried out under the supervision of a competent person, who has been appointed in writing, with at least two years' experience in excavation work. Before excavation work begins the stability of the ground must be evaluated.
- Whilst excavation work is being performed, the contractor must take suitable and sufficient steps to prevent any person from being buried or trapped by a fall or dislodgement of material.
- No person may be required or permitted to work in an excavation that has not been adequately shored or braced.
- Where the excavation is in stable material and where the sides of the excavation are sloped back to at least the angle of repose of the excavated material, shoring or bracing may be left out but only after written permission has been obtained from the appointed competent person.
- Shoring and bracing must be designed and constructed to safely support the sides of the excavation.
- Where uncertainty exists regarding the stability of the soil the opinion of a competent professional engineer or professional technologist must be obtained whose opinion will be decisive. The opinion must be in writing and signed by the engineer or technologist as well as the appointed competent person.
- No load or material may be placed near the edge of an excavation unless suitable shoring has been installed to be able to carry the additional load.
- Neighbouring/adjoining buildings, structures or roads that may be affected or endangered by the excavation must be suitably protected.
- Every excavation must be provided with means of access that must be within 6 metres of any worker within the excavation.
- The location and nature of any existing services such as water, electricity, gas etc. must be established before any excavation is commenced with and any service that may be affected by the excavation must be protected and made safe for workers in the excavation.
- The appointed competent person must inspect every excavation, including the shoring and bracing or any other method to prevent collapse, as follows:

  - Daily before work commences
  - After every blasting operation
  - After an unexpected collapse of the excavation
  - After substantial damage to any supports
  - After rain
- The results of any inspections must be recorded in a register kept on site and in the safety file.
- Every excavation accessible to the public or that is adjacent to a public road or thoroughfare or that threatens the safety of persons, must be adequately barricaded or fenced to at least one meter high and as close to the excavation as practicable, regardless of the depth of the excavation.
- Every excavation must be provided with warning lights or visible boundary indicators after dark or when visibility is poor.
- Upon entering an excavation the requirements of General Safety Regulation 5, work in confined spaces, must be observed:
- Any confined space may only be entered after the air quality has been tested to ensure that it is safe to breathe and does not contain any flammable or noxious air mixture.
- The confined space must be purged and ventilated of any hazardous or flammable gas, vapour, dust or fumes.
- The safe atmosphere must be maintained and, where necessary.
- Employees are to be provided with breathing apparatus and must wear a safety harness with a rope with the free end of the rope being continuously attended to by a person outside the confined space.
- Furthermore, an additional person, trained in resuscitation, to be in full-time attendance immediately outside the confined space.
- Additional serviceable breathing and rescue apparatus is kept immediately outside the confined space for rescue purposes.
- All pipes, ducts etc. that may leak into the confined space to be blanked off sufficiently to prevent any leakage or seepage.
- The employer must ensure that all employees have left the confined space after the completion of work.
- Where flammable gas is present in a confined space no work may be performed in close proximity to the flammable atmosphere.
- Excavations and other openings must be provided with sufficient barriers to prevent construction vehicles and mobile plant from falling into them.
- Excavations left open for extended periods of time (exceeding 48 hours) must be approved the relevant Engineer / Construction Supervisor.

20.2 EXISTING SERVICES

- The Contractor shall note that although the drawings have been prepared using available information they show only the approximate positions of existing services where applicable.
- The information is supplied in good faith but shall be used as a guide only and does not relieve the Contractor of his responsibility to exercise due caution when working in areas where existing services can reasonably be expected, nor his obligation to liaise with the authorities in this regard and the obtaining of the necessary work permits and wayleaves.
- The Contractor shall be responsible to locate and safeguard any existing service he may encounter during construction. The Contractor shall be responsible for any damage to such existing services and works in the

execution of this contract and shall reimburse the Employer, authority or the owner concerned for any repairs required following damages due to the Contractor's negligence.

- The Contractor shall be responsible for immediately notifying the Engineer and the authorities concerned regarding any damage caused to public services and existing works.
- Any alterations to public services shall be carried out by the Authority concerned unless the Contractor is instructed otherwise.

20.3 SETTING OUT OF WORKS

- Reference and level beacons will be shown to the Contractor by the Engineer at the commencement of the Contract and the Contractor will be responsible for transferring the datum to the Site of Works.
- The Contractor shall check the condition and accuracy of all reference and level beacons and satisfy himself that they have not been disturbed and are true with regard to position and level. A beacon that has been disturbed shall not be used until its true position and level have been re-established and the new values have been certified by the Engineer. The Contractor shall thereafter be held entirely responsible for the protection of all reference and level beacons.
- The Contractor shall employ a capable surveyor to set out the Works to the required lines and levels. The Engineer shall be informed immediately should any discrepancy be discovered between the levels or dimensions obtained by the Contractor and those shown on the drawings.
- Where a beacon is likely to be disturbed during construction operations, the Contractor shall establish suitable reference beacons at locations where they will not be disturbed during construction. No beacons shall be covered over, disturbed or destroyed before accurate reference beacons have been established and details of the positions and levels of such beacons have been submitted to the Engineer. The Contractor's reference beacons shall be of at least the same accuracy and sturdiness of construction as the existing beacons.
- The Contractor shall submit the method of setting out he proposes to employ to the Engineer. Accurate control of line and level shall be provided by the Contractor at all stages of construction.
- Work set out by the Contractor may be checked by the Engineer and any errors found shall be rectified by the Contractor at his own expense. The Contractor shall supply any instrument, equipment, material and labour required by the Engineer for this survey work. Any assistance, including checking given to the Contractor by the Engineer or any setting out done by the Engineer for Contractor shall not be held as relieving the Contractor of his responsibility for the accurate construction of the Works.
- The Contractor's survey instruments and survey equipment shall be suitable for the accurate setting out of the Works and shall be subject to the approval of the Engineer. They shall furthermore be checked and correctly adjusted by the authorized agents before the commencement of the contract and subsequently when required by the Engineer and when otherwise necessary.
- Survey work shall not be measured and paid for directly and compensation for the work involved in setting out shall be deemed to be covered by the rates tendered and paid for the various items of work included under the contract.

20.4 CONFINED SPACE ENTRY

- Enclosed space work necessitates a Confined Space Permit. This may only be obtained from the authorized person nominated in writing.

- The responsibility for safe procedure, both at the time of entry and during the entire operation of entering and working in confined spaces, rests with the Contractor.
- The Contractor shall be sure that adequate steps have been taken to eliminate or control hazards.
- Before working in an area that contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.
- The Contractor shall provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like).
- The Contractor shall ensure all persons working in a confined space or managing entry to a confined space are appropriately trained.
- Compulsory - Continuous monitoring, trained rescue teams, radio communication & adequate ventilation.

Pump sumps & valve chambers

Ventilation

- All available manholes or ventilation covers must be removed and the compartment ventilated for 10 (ten) to 15 (fifteen) minutes, using compressed air or a portable blower.
- Such ventilation must be continued while personnel are in the compartment.
- Ensure that exhaust fumes from blower do not enter the confined space.
- Before entering any sump or compartment, the atmosphere must be tested by the Principal Contractor's competent person (trained by the supplier of the gas monitoring equipment) by lowering the gas monitoring equipment to the bottom of the sump or compartment by means of a rope.
- A register must be kept indicating that the atmosphere has been tested and that the sump or compartment is fit to work in.
- The Principal Contractor's construction supervisor must check and co-sign this register each time he visits a site to ensure that the atmosphere is continuously being monitored.

Entering sump

- When entering a sump the person entering the sump must wear the safety harness, gas detector as well as a self-rescuer.
- A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the sump.
- At least one person on the surface must be trained in basic first aid and CPR and a first aid kit with resuscitation equipment must be available outside the entrance of the confined space for emergencies.
- Should the alarm sound when a person is in the confined space, the area must be evacuated immediately and the atmosphere re-tested and certified safe before re-entry into the confined space.
- In no circumstance shall any person remain within a sump for a period of more than one hour at a time.
- A five-minute rest on the surface must be taken after this period before re-entering.
- No naked lights, smoking or unprotected electrical apparatus which may cause sparks, shall be permitted in any sump or in their vicinity.

Confined spaces & water chambers

General

- All employees working in confined spaces or sewer manholes must be issued with gas monitoring equipment and safety harnesses and self- rescuers where applicable.
- All these employees must be trained in their use.
- Where over pumping between manholes is involved, only leakage free pumping machines and conveyance tubes will be allowed.
- Under no circumstances may any confined space be entered unless it has been certified safe to work in.
- Safety harnesses and attachments must be checked for damage to webbing, metal fittings and ropes on a monthly basis and the findings recorded in a register.
- Should a harness be damaged, it must be reported to the construction supervisor immediately.

The following records shall be taken and maintained by the Principal Contractor:

- Confined space entry permits
- Confined space entry registers
- Safety harness registers

Ventilation

- All available manholes or ventilation covers must be removed and the chamber ventilated for 10 (ten) to 15 (fifteen) minutes, using compressed air or a portable blower.
- Such ventilation must be continued while personnel are in the chamber.
- Ensure that exhaust fumes from blower do not enter the confined space.
- Before entering any chamber, the atmosphere must be tested by the Principal Contractor's competent person (trained by the supplier of the gas monitoring equipment) by lowering the gas monitoring equipment to the bottom of the chamber by means of a rope.
- A register must be kept indicating that the atmosphere has been tested and that the area is fit to work in.
- The Principal Contractor's construction supervisor must check and co-sign this register every time he visits the site to ensure that the atmosphere is continuously being monitored.
- Fumes must be extracted from the chamber while welding.

Entering chamber

- When entering a chamber the person entering the chamber must wear a safety harness as well as the gas detector.
- A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the manhole.
- At least one person on the surface must be trained in basic first aid and CPR and a first aid kit with resuscitation equipment must be available outside the entrance of the confined space for emergencies.
- In no circumstances shall any person remain within a chamber for a period of more than one hour at a time. A five-minute rest on the surface must be taken after this period before re-entering.
- Should the alarm sound when a person is in the confined space, the area must be evacuated immediately and the atmosphere re-tested and certified safe before re-entry into the confined space.
- When the activity to undertake inside the pipeline includes the use of any hazardous chemical substances or substances, which might cause hazardous fumes or gasses the contractor, must comply with 5.24 Hazardous Chemical Substances.

Safety equipment

- All teams must be issued with gas monitoring equipment and safety harnesses and self-rescuers where applicable.
- All employees must be trained in the use thereof.

20.5 BARRICADING

- Barricading plans are to be presented by the Principal Contractor for any major operations involving site works for approval by Johannesburg Water SOC Ltd. Where areas are unsafe, they should be enclosed with barricading. Examples are people working overhead, welding splatter etc.
- Where there is a risk of injury, the area should be barricaded off with secure solid barricades.
- Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a handrail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.
- Appropriate signage shall be affixed to the barricade indicating the risk associated (i.e. deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed. All barricading shall have a "No Entry" signs on all sides and at each change of direction. Signage shall be placed at 20 m intervals where lengths exceed. All signage shall be a minimum size of 290 mm x 290 mm.

- Danger tape shall not be utilised to prevent personnel from entering into areas.
- Where no risk exists of injury to personnel such as stacking and storage areas, the use of wire for hand and knee rails netting shall be acceptable to demarcate the area.
- All barricades will have a dedicated entrance where it is required that personnel enter the areas.
- Appropriate signage shall be placed at the entrance indicating which Contractor has right of entry.
- It is the Contractor's responsibility to remove all redundant barricades directly after use. The Contractor's Safety Officers will maintain a marked-up site plan indicating where barricades are erected.
- It will be a requirement that the contractor protects employees against contact with exposed rebar and poles by the installation of rebar-caps on all exposed areas where there is a potential that an employee could be injured.

20.6 SYMBOLIC SIGNGAGE

Contractors shall use mandatory and prescribed symbolic safety signs at their lay down and site areas. The display of the following signs is mandatory:

- "Radio-Active Material" symbolic signs at radioactive storage areas.
- "Eye Protection" symbolic signs shall be displayed at all grinding machines and at any area where it is mandatory to wear eye protection or where there is danger of an eye injury being sustained.
- "Ear Protection" symbolic signs shall be displayed at all areas where there is a danger of noise induced hearing loss being sustained.
- Every separate room of a workplace shall be consecutively numbered.
- All toilets or urinals shall be marked in a conspicuous place with painted or stencilled letters to indicate the sex for which they are intended.
- The location of every first aid box is to be clearly indicated by means of a sign.
- In any room, cabinet or enclosure where flammable substances are used or stored shall be fixed a suitable and conspicuous sign prohibiting smoking or the use of naked flames in the area.
- At the entrance to premises where machinery is used
- Restricted access on "Authorised Person Only" signs on entry. "No person shall enter the workplace or premises without the permission of the employer or user of the machinery".
- At every place where machinery is used a notice (English & Pictograms) shall be posted.
- Explosive Power Tool shall have a sign warning people when it is in use.
- Electrical Control Gear. A notice shall be posted so as to warn against the re-closing of a switch of control gear whilst a person is working on such equipment.
- Emergency contact telephone numbers.
- Adequate scaffolding signs. (When applicable).
- Adequate fire fighting equipment signs.
- Speed limit signs.
- Warning notices at openings through which people may fall.
- Risk based signage depending on the task being performed e.g.:
    - "Men working above", "Men working below', "Road closed – detour", "Excavation in progress", "No walkway" etc.;
- No-entry signs to incomplete platforms

The Principal Contractor shall install a notification board indicating the following information at the site entrance:

- Johannesburg Water SOC Ltd project number;
- Principal Contractor identification details (name, telephone number)
- Name and contact details of Construction Supervisor;
- Name and contact details of site safety officer;
- Monthly compliance rating;
- Lost Time Injury Rate;

The Principal Contractor will ensure that information on the notification board is kept up-to-date.

20.7 USE AND STORAGE OF FLAMMABLES

The Principal Contractor to ensure that:

- No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapours being present unless adequate precautions are taken;
- No flammable material is used or applied e.g. in spray painting, unless in a room or cabinet or other enclosure specially designed and constructed for the purpose unless there is no danger of fire or explosion due to the application of adequate ventilation;
- The workplace is effectively ventilated. Where this cannot be achieved:
    - Employees must wear suitable respiratory equipment
    - No smoking or other source of ignition is allowed in the area
    - The area is conspicuously demarcated as “flammable”
- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with access control measures in place. Sufficient fire fighting equipment is installed and fire prevention methods practiced. Proper housekeeping may achieve this;
- Flammables stored in a permanent flammable store are stored so that no fire or explosion is caused.
- Stored in a locked and well-ventilated reasonably fire resistant container, cage or room conspicuously demarcated as “Flammable Store – No Smoking or Naked Lights”
- The flammables store to be constructed of two-hour fire retardant walls and roof and separated from adjoining rooms or workplaces by means of a two-hour fire retardant fire wall
- Adequate and suitable fire fighting equipment installed around the flammables store and marked with the prescribed signs
- All electrical switches and fittings to be of a flameproof design
- Any work done with tools in a flammable store or work areas to be of a non-sparking nature
- No Class A combustibles such as paper, cardboard, wood, plastic, straw and the like to be stored together with flammables
- The flammable store to be designed and constructed such that in the event of spillage of liquids the store is able to contain the full quantity + 10% of the liquids stored
- A sign indicating the capacity of the store to be displayed on the door
- Only one day’s quantity of flammable is to be kept in the workplace;
- Containers (including empty containers) to be kept closed to prevent fumes/vapours from escaping and accumulating in low lying areas;
- Metal containers to be bonded to earth whilst decanting to prevent build-up of static forces; and
- Welding and other flammable gases to be stored segregated according to the type of gas and empty and full cylinders.

20.8 HAZARDOUS CHEMICAL SUBSTANCES

The Principal Contractor must ensure that:

- Employees receive the necessary information and training to be able to use and store hazardous chemical substances safely;
- Employees obey lawful instructions regarding:
    - The wearing and use of protective equipment
    - The use and storage of hazardous chemical substances
    - The prevention of the release of hazardous chemical substances
    - The wearing of exposure monitoring and measuring equipment
    - The cleaning up and disposal of materials containing hazardous chemical substances
    - Housekeeping, personal hygiene and the protection of the environment

- The risk assessments required in terms of Construction Regulation include employee exposure to hazardous chemical substances and that the necessary measures be taken to protect persons from being detrimentally affected by hazardous chemical substances present or used in the workplace;
- Suppliers provide the necessary information in the form of a material safety data sheet regarding a hazardous chemical substances required to ensure the safe use and storage of that substances;
- An up-to-date list is kept on site of hazardous chemical substances stored and used together with the material safety data sheet of the hazardous chemical substances;
- Hazardous chemical substances containers be clearly marked with the contents and main hazardous category e.g. “Flammable” or “Corrosive” and the reference number of the hazardous chemical substances on the list indicated above;
- Hazardous chemical substances, for example asbestos dust, are not cleared by using compressed air but should be vacuumed;
- No person eats or drinks in a hazardous chemical substances workplace; and
- Hazardous chemical substances waste is disposed of safely in terms of hazardous waste disposal requirements.
- MSDS’s to be in 16 point format- available on site

20.9 FIRE PREVENTION AND PROTECTION

The Principal Contractor must ensure that:

- The risk of fire is avoided;
- Sufficient and suitable storage for flammables is provided;
- Sources of ignition are removed wherever flammable or highly combustible material is present in the workplace, for example:
    - Notices prohibiting smoking are displayed and enforced
    - Welding and flame cutting is only allowed under controlled conditions that includes written hot work permits
    - Only spark-free hand and power tools are used
    - No grinding, cutting and shaping of ferrous metals is allowed using electrically driven power tools that produce sparks
    - Flameproof switches and fittings are to be used in the flammable atmosphere
    - Good housekeeping is maintained to prevent the accumulation of unnecessary combustibles
    - Adequate ventilation is maintained
    - Adequate and suitable fixed and portable fire fighting equipment is provided and maintained in good working order.
- Maintenance must include:
    - Regular inspection of fire equipment by a competent person appointed in writing and keeping a register
    - Annual inspection and service by an accredited service provider
- All employees are instructed in the use of the fire fighting equipment and know how to attempt to extinguish a fire;
- A sufficient number of employees are appointed and trained to act as an emergency team to deal with fires and other emergencies;
- Employees are informed regarding emergency evacuation procedures and escape routes;
- Emergency escape routes are kept clear at all times and clearly marked;
- Evacuation assembly points are demarcated;
- Evacuation is practiced to ensure that all persons are evacuated timeously;
- Roll call is held after evacuation to account for all personnel and ensure that no-one has been left behind; and
- A siren or alarm is fitted which is clearly audible to all persons on site.

20.10 STACKING AND STORAGE

The Principal Contractor must ensure that:

- A competent person is appointed in writing to supervise all stacking and storage on a construction site;
- Adequate storage areas are provided and demarcated;
- The storage areas are kept neat and under control;
- The base of any stack is level and capable of sustaining the weight exerted on it by the stack;
- The items in the lower layers can support the weight exerted by the top layers;
- Cartons and other containers that may become unstable due to wet conditions are kept dry;
- Pallets and containers are in good condition and no material is allowed to spill out;
- The height of any stack does not exceed 3 times the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector has been obtained to build the stacks higher with the aid of a machine. The operator of the machine must be protected against items falling from overhead off the stack and no items may overhang;
- The articles that make up a single tier are consistently of the same size, shape and mass;
- Structures for supporting stacks are structurally sound and able to support the mass of the stack;
- No articles are removed from the bottom of the stack first but from the top tier first;
- Anybody climbing onto a stack must do it in a safe manner, taking reasonable safety precautions, and ensuring that the stack is stable and capable of supporting him or her
- Stacks that are in danger of collapsing are broken down and restacked;
- Stability of stacks are not threatened by vehicles or other moving plant and machinery;
- Stacks are built in a header and stretcher fashion and that corners are securely bonded;
- Stacks are stepped back at least half the depth of a single container at least every fifth tier; and
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations.
- Laydown area is allocated for Contractor-supplied items.
- At all times, the Contractor shall be responsible for the safe and adequate storage of all materials and equipment on site which he is to install, whether they are supplied by himself or others.
- The safe handling, unloading and loading of material receipts and dispatches at site or storage areas shall be the Contractors' responsibility.

The Contractor shall provide a suitable and adequate lock-up store for the storage of items of equipment and material, which would be damaged or pilfered if stored in the open. The Principal Contractor shall provide all facilities required for weather-proofing, dust proofing or vermin proofing.

The Contractor is responsible for the proper storage and maintenance of all equipment until issue of the Certificate of Practical Completion.

All equipment and materials will be stored on suitable wood poles or pallets which will not protrude more than a meter from any of the stored material. Safe access ways shall be maintained between all stored items preventing employees from having to climb over or under equipment to retrieve the necessary.

20.11 HOUSEKEEPING

The Principal Contractor to ensure that:

- Housekeeping is continuously implemented and maintained;
- Materials and equipment are properly stored;
- Scrap, waste and debris is removed regularly;
- Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to the free-flow of pedestrians and vehicular traffic;
- Waste and debris not to be removed from heights by throwing but rather by chute or crane;
- Where practicable, construction sites are fenced off to prevent entry of unauthorised persons;

- Catch platforms or nets are erected over entry and exit ways or over places where persons are working to prevent them being struck by falling objects;
- An unimpeded work space is maintained for every employee;
- Every workplace is kept clean, orderly and free of tools, materials and the like that are not required for the work being done;
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, skid-free and free of obstruction, waste and materials;
- The walls and roof of every indoors workplace sound and leak-free; and
- Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fenced, boarded over or provided with protection to prevent persons from falling.

20.12 PUBLIC HEALTH AND SAFETY

The Principal Contractor is responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from the construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. This includes:

- Non- employees entering the site for whatever reason;
- The surrounding community; and
- Passers-by the site.

- The Principal Contractor shall organize the site in such a manner that pedestrians and vehicles can move safely and without risks to health, including sufficient and suitable traffic routes and safe walkways with relevant signage.
- Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times. All non-employees entering the site must receive induction into the hazards and risks of the site and the control measures to be observed.
- The Principal Contractor shall recognize that the Community Liaison Officer (CLO) is the link between Johannesburg Water SOC Ltd and the community and provide all reasonable support to the Community Liaison Officer to ensure relevant responsibilities are fulfilled and positive relationships with the community are maintained.

20.13 TRAFFIC MANAGEMENT

- Where activities are performed close to public routes, the Principal Contractor will establish a traffic management plan incorporating the requirements of relevant by-laws.
- At a minimum, barricading, warning signage and flagmen will be provided to ensure the protection of workers from vehicles in transit.
- Where required, the Principal Contractor will interact with the local traffic department to establish minimum requirements to be implemented on public routes.

20.14 HAND TOOLS

The Principal Contractor must inspect all hand tools before it is brought onto the site.

- As far as possible all hand tools must be numbered and placed on register to be inspected monthly by a person designated to do so.
- Any tools found to be in an unsafe condition must immediately be removed from service and either discarded or rectified.
- No chisels with “mushroomed” heads must be used.
- No hammer shall be used with a cracked or damaged handle.
- All files must be fitted with handles.
- All trolleys, pushcarts, etc. used on site must be identifiable, placed on register and inspected at least once every month.

- Non-sparking tools must be used in areas where the risk of fire or explosion is present.
- No homemade hand tools are allowed on the project.
- All tools shall be attached to a suitable lanyard when utilised in elevated positions

20.15 PORTABLE ELECTRICAL EQUIPMENT

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 ampere plug point and is moved around for use in the workplace for example; drills, saws, grindstones, portable lights, etcetera. Other electrical appliances such as fridges, hotplates, heaters, and etcetera must be inspected and maintained to the same standards as portable electrical tools and appliances.

The use, inspection and maintenance of portable electrical tools and equipment shall be as follows:

- Periodical inspections must be carried out by a competent person appointed in writing;
- Inspection results must be recorded in a register;
- Only competent authorised persons are allowed to use portable electrical tools and equipment; and
- The correct protective equipment must be worn or used whilst operating portable electrical tools and equipment.

This equipment:

- Must be maintained in good condition at all times to prevent an electrical shock to the user;
- The main power source should incorporate an earth leakage protection device or receive power through a double wound transformer or be double insulated and clearly marked as such; and
- All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

The following requirements apply to portable lights:

- Must be fitted with a robust non-hygroscopic non-conducting handle;
- Live metal parts or parts which may become live must be protected against contact;
- The lamp must be protected by a strong guard;
- The cable lead-in must withstand rough handling;
- Inspections must be undertaken that concentrate on plug, cord, switch and any obvious faults;
- A register be kept for each piece of equipment with findings of regular inspections undertaken to evaluate the condition of these lights; and
- When used in wet/damp/metal container conditions, the lamp must be protected.

20.16 LIFTING EQUIPMENT & MACHINERY

Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the of Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993).

The Driven Machinery Regulations requires that:

- Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. When the MML varies with the conditions of use a table showing the maximum mass load with respect to every variable condition shall be posted up by the user in a conspicuous, place easily visible to the operator and the table shall be used by the driver/operator;
- Each winch on a lifting machine must at all times have, at least, three full turns of rope on the drum when the winch has been run to its lowest limit;
- Lifting equipment shall be fitted with a brake or other device capable of holding the MML. This brake or device shall automatically prevent the downward movement of the load when the lifting power is interrupted;
- Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML;

- Every chain or rope on a lifting machine that forms an integral part of the machine must have a factor of safety as prescribed by the manufacturer of the machine. Where no standard is available the factor of safety must be:
  - chains – 4 (four)
  - steel wire ropes 5 (five)
  - fibre ropes- 10 (ten)
- Every hook or load attaching device must be designed to prevent the load from slipping off or disconnecting;
- Every lifting machine must be inspected and load tested by a competent person every time it has been dismantled and re-erected and every 12 months after that. The load test must be in accordance with the manufacturer's requirements or to 110% of the MML. In addition, all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices forming an integral part of a lifting machine must be inspected every 6 months by a competent person;
- All maintenance, repairs, alterations and inspection results must be recorded in a log book and each lifting machine must have its own log book; and
- No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

General requirements for cranes and lifting equipment

All documentation must be provided to the Johannesburg Water SOC Ltd Project Engineer prior to mobilisation. Failure to do so and the resulting cost of any delays and/or remedial activities will be for the Contractor's account.

All crane operators must be authorised by the relevant Engineer before they may operate a crane or lifting machine. The Load charts must be displayed at the crane.

Daily pre-use inspections of the cranes must be done and be kept on the file. The inspections must be logged in a logbook. The area in which a lift is performed must always be barricaded to prevent employees from entering.

A crane or lifting machine must not be left unattended and the keys may never be left in the ignition when the operator is not present. Properly constructed out rigger pads must be used when soil is uneven or unstable. (Only sleepers or appropriately designed steel plate pads may be used for this purpose).

Only a competent rigger may direct a lift of any kind unless the following requirements are met. Rigger assistants used for performing lifting operations shall be limited to lifts with all of the following requirements:

- Lifts lower than 5 tons
- Easy lifts that does not require the load to be lifted over structures, equipment or machinery
- Equipment that is not critical
- Rigging configuration that requires the attachment of several parts of lifting equipment such as chain blocks to adjust the angle of loads.
- All safety devices on a crane or lifting machine must be functional.

Certification will be required for record purpose, and shall cover the following:

- A Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and
- A Limiting device which shall automatically arrest the driving effort when:
- The Hook or Load attachment point of the Power Driven lifting machine reaches its highest safe position; and
- In the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more, the load is greater than the rated mass load of such machine.

The user shall ensure that every lifting machine is operated by an Operator specifically trained for a particular type of lifting machine; the user shall not require or permit a person to operate such lifting machine unless the operator is in possession of a certificate of training, issued by an accredited person or organisation.

No Crane shall be used at arrival on site before copies of all documentation have been handed over to the Johannesburg Water SOC Ltd and the Crane have been checked by a person duly authorised and signed off as acceptable. Copies of all documentation shall be kept in the SHE File at all times.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved:

- Operator's licences
- Training certificates
- Medical fitness certificate.
- The cranes load test certificate.
- Rope test certificates including Mill / Destructive test.
- The lifting gear load test certificates.
- The load limiting device calibration certificate.
- Proof that the hooks have been measured for spreading.
- The service inspection history.
- Monthly comprehensive inspection certificate
- Operation and maintenance Manuals and crane condition.

Cranes and Lifting Machines

A contractor shall ensure that where tower cranes are used:

- Account is taken of the effects of wind forces on the structure;
- Account is taken of the bearing capacity of the ground on which the tower crane is to stand;
- The bases for the tower cranes and tracks for rail-mounted tower cranes are firm and level;
- The tower cranes are erected at a safe distance from excavations;
- There is sufficient clear space available for erection, operation and dismantling;
- The tower crane operators are competent to carry out the work safely; and
- The tower crane operators are physically and psychologically fit to work in such an environment by being in possession of a medical certificate of fitness."

No user shall use or permit any person to use a Jib-Crane with a lifting capacity of 5000kg or more at a minimum Jib radius, unless it is provided with:

- A load indicator that shall indicate to the operator of the Jib-Crane the mass of the load being lifted, provided that such a device shall not require manual adjustment from the application of the load, to the Jib-Crane, until the release of the load.
- A Limiting Device, which shall automatically arrest the driving effort whenever the load is lifted, is greater than the rated mass load of the Jib-Crane.

Mobile Crane near Power Lines

No mobile cranes are to be used near overhead power lines until the Johannesburg Water SOC Ltd representative has been notified and provided safe access conditions and a valid permit to work is obtained. Mobile cranes shall be effectively earthed when working in the vicinity of electrical wires. Assume that all electrical equipment and wires are live and avoid them.

Lifting tackle

The following requirements will apply to lifting tackle:

- Manufactured of sound material, well-constructed and free from patent defects;
- Clearly and conspicuously marked with an identity number;
- MML factor of safety:

- Natural fibre ropes - 10(ten)
- Man-made fibre ropes and woven webbing - 06(six)
- Steel wire ropes – single rope - 06(six)
- Steel wire ropes – combination slings - 08(eight)
- Mild Steel chains - 05(five)
- High tensile/alloy steel chains - 04(four)

- Steel wire ropes must be examined by a competent person every three months and the results recorded in a designated logbook. The ropes must be discarded (not used any further for lifting purposes) when wear and corrosion is evident.

20.17 LADDERS

The following requirements for ladders will apply:

- All ladders used on the site shall be constructed and used in compliance with the OH&S Act and Regulations.
- Ladders, which provide access to a working platform, shall extend one metre above the platform where it provides access, and shall be secured to prevent slipping.
- Timber ladders shall not be painted other than with clear preserving oils, clear varnishes or clear plastics.
- Ladders, which are in a damaged condition, shall not be used and shall be labelled accordingly and removed from the Premises.
- All Ladders shall be numbered, logged in a register, and inspected monthly.
- A ladder in use shall be held by an assistant and/or properly tied down in position.
- Only ladders that do not conduct electricity shall be used in live electrical sub-stations and switching rooms.
- Ladders shall be removed after use and stored in an appropriate facility as to not expose them unnecessarily to the elements or potential damage by surrounding activities.

20.18 CONSTRUCTION VEHICLES AND MOBILE PLANT

Johannesburg Water SOC Ltd will inspect construction vehicles and mobile plant prior to being allowed on a project site. Suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the Occupational Health and Safety Act (Act no. 85 of 1993) and Regulations.

Construction vehicles and mobile plant to be:

- Of acceptable design and construction;
- Maintained in good working order;
- Used in accordance with their design and intention for which they were designed;
- Operated and/or driven by trained, competent and authorised operators/drivers. No unauthorised persons are to be allowed to drive construction vehicles and mobile plant;
- Provided with safe and suitable means of access;
- Fitted with adequate signalling devices to make movement safe including reversing;
- Provided with roll-over protection (where applicable);
- Inspected daily before start-up by the driver, operator and/or user and the findings recorded in a register/log book;
- Fitted with two head and two tail lights that are in good working condition and must be used whilst operating under poor visibility conditions;
- When used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported.

Operators and drivers of construction vehicles and mobile plant must be in possession of a valid medical certificate declaring the operator and/or driver physically and psychologically fit to operate or drive construction vehicles and mobile plant.

No loose tools, materials etc. are allowed in the driver and/or operators compartment/cabin or in the compartment in which any other persons are transported.

No person shall ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose. Employees shall only be transported if provision for seating and safety belts has been provided with an adequate canopy or rollover protection.

All construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, must have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant.

Bulldozers, scrapers, loaders, and other similar mobile plant must, when being repaired or when not in use, be fully lowered or blocked with controls in a neutral position, motors stopped and brakes set.

Self-Propelled Mobile Machinery

All Self-Propelled Mobile Machinery must be inspected daily and the findings recorded in a register. Pre-use inspection checklist shall identify critical items that would stop the operator from operating machinery should a defect be detected.

All operators shall be tested on their ability to operate machinery and equipment inspected prior to be used on any of the premises by the Johannesburg Water SOC Ltd Project Inspectors and Responsible Engineer. Relief drivers shall be made available for mobile machinery where there is a need for on-going operations and the contractor shall establish a rotation schedule.

All Drivers/Operators shall be appointed under the applicable legislation prior to operating any type of mobile equipment or machinery:

- If Driver/Operator does not adhere to the rules and regulations his appointment as operator shall be cancelled and he shall not be able to carry on with his duty.
- No Driver/Operator shall be appointed without proof of training, driver's licence or letter of competency.
- No training of Drivers/Operators on Site.
- No passengers on dump truck, Loaders or Excavators.
- No eating or drinking allowed while operating equipment.
- No vehicle shall be left unattended with engine running or key in ignition.
- Drivers may use no cellular phones during operations.

Equipment Approval

Authorization for the use of equipment shall be given in writing only after the following minimum requirements and documentation have been verified and shall as a minimum include the following:

- Minimum two lights in front and rear of vehicle
- Communications system (where required);
- Reflective Taping;
- First-aid kit, fire-fighting equipment and emergency roadside triangles;
- Tyres in good condition;
- Windscreen clear of cracks;
- Safety belts fitted for all occupants;
- Signage for clear identification;
- Windscreen wipers;
- Warning hooter and reverse alarm;
- Rotating warning lights (where applicable);
- Maximum number of persons indicated;
- Equipment free of oil and other leaks;
- Maintenance/Service & Equipment manuals available;

Operator Approval

Authorization for operators for the use of equipment shall be given in writing only after the following minimum requirements and documentation have been verified and shall as a minimum include the following:

- Operator's Certificate (accredited training organisation);
- Operators Licence appropriate to the nature of the Mobile equipment;
- Operator's knowledge tested and familiar with the controls for the vehicle;
- Public driver's permit where required;
- Medical fitness certificate.

20.19 Fall protection (Working in elevated positions)

A pre-emptive risk assessment will be required for any work to be carried out above **two metres** from the ground or any floor level. This work will be classified as "work in elevated positions".

As far as is practicable, any person working in an elevated position will work from a platform, ladder or other device that is at least as safe as if he is working at ground level. Whilst working in this position he shall be wearing a single belt with lanyard to prevent the person falling from the platform, ladder or other device. This safety belt will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length and strength that the person will not be able to move over the edge.

Alternatively, any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with suitable guard rails at two different heights as prescribed in the relevant South African National Standard for the design, erection, use and inspection of access scaffolding.

Where the requirement in the paragraph above is not practicable, the person will be provided with a full body harness that will be worn at all times and shall be attached above the wearer's head at all times. The lanyard must be fitted with a shock-absorbing device or the person must be attached to a fall arrest system (anchorage connector; body wear; and connecting device) approved by Johannesburg Water SOC Ltd.

Where the requirements in the paragraph above are not practicable, a suitable catch net must be erected.

Employees working in elevated positions must be trained to work without risk to their health and safety or to the health and safety of others and be declared medically and psychologically fit to perform work at elevated positions.
Where work on roofs is carried out, the risk assessment must take into account the possibility of persons falling through fragile material, i.e. skylights and openings in the roof.

Access scaffolding

Access scaffolding must be erected, used and maintained safely in accordance with Construction Regulations and relevant SA Bureau of Standards Code of Practice.

Detailed consideration must be given to all scaffolding to ensure that it is properly planned to meet the working requirements, designed to carry the necessary loadings and maintained in a sound condition. Sufficient material must be available to erect the scaffolding properly.

Scaffolding must only be erected, altered or dismantled by persons who have adequate training and experience and are competent in this type of work and under the continuous supervision of such a person.

20.20 Structures

The Principal Contractor must ensure that:

- Only skilled employees are allowed to erect structures and that the skills of these employees are verified at regular intervals.
- Steps are taken to ensure that no structure becomes unstable or collapses due to construction work being performed on it or in the vicinity of it.
- No structure is overloaded to the extent that it becomes unsafe.
- He has received from the designer the following information:
    - Information on known or anticipated hazards relating to the construction work and the relevant information required for the safe execution of the construction work.
    - A geo-scientific report (where applicable).
    - The loading the structure is designed to bear.
    - The methods and sequence of the construction process.

All drawings relating to the design are on site and available for inspection.

20.21 Explosive powered tools

Every explosive powered tool must be:

- Provided with a guard around the muzzle to confine flying fragments or particles; and
- Must be fitted with a firing mechanism that will prevent the explosive powered tool from firing unless it is pushed against the surface and at the right angle. Where the explosive powered tool is fitted with an intermediate piston between the charge and the nail this requirement is waived.

The Principal Contractor or user must ensure that:

- Only the correct type of cartridge is used;
- The explosive powered tool is cleaned and inspected daily before use by an appointed competent person. The competent person will keep a register with the findings of his inspection and the details of cleaning, service and repairs;
- The safety devices are in good working order before the explosive powered tool is used;
- When the explosive powered tool is not being used it is stored in an unloaded condition together with the cartridges in a safe and secure place inaccessible to unauthorised persons;
- A warning notice is displayed at the point where the explosive powered tool is in use;
- The issue and return of cartridges must be by issue/returns register signed by both issuer and user and empty cartridge cases must be returned with unspent cartridges;
- Users and operators of the explosive powered tool have received the necessary training and has been authorised as competent to use/operate the explosive powered tool; and
- Users and operators must wear the prescribed personal protective equipment whilst using and/or operating the tool.

20.22 Bulk mixing plants (Batch plants)

- Not applicable

20.23 Working in proximity to Eskom power lines

- No mechanical equipment, including mechanical excavators, may be used under or in close proximity to Eskom's services without the prior approval of Eskom's authorized representatives. No excavations may be executed closer than 3 meters from any of Eskom underground electric power cables and 10 meters from Eskom overhead electrical power lines unless Eskom authorized representative is on site.
- No excavations may take place closer than 5m from any overhead line infrastructure (poles and stays and only excavation by hand will be allowed. Only excavation by hand will be allowed on the same route and in close proximity to the Eskom's 132 kV cables.
- The use of explosives of any type within 500 meters of Eskom's services shall only occur with Eskom's previous written permission. If such permission is granted the applicant must give at least fourteen working days prior notice of the commencement of blasting. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued in terms of the blasting process.
- The contractor shall be liable for any death or injury to any person or for the loss of or damage to any property caused in whatsoever manner by the contractor, his employees, agents or sub-contractors. The contractor's attention is drawn to section 27(3) of the Electricity Act 1987.
- The contractor is advised to negotiate a proper route with the CNC (Customer Network Centre. Lat Long co-ordinates of all proposed routes to be provided on site and during the application process. The contractor is required to provide the same to the CNC on site during the signing of the Stakeholder On-Site Risk Identification Form.
- Parallel encroachment into overhead power line servitudes is limited to one meter from the boundary of the servitude. (Where applicable for underground pipelines only.)
- All Eskom servitudes to be kept clear of any obstacles and other services. No dumping, manholes and illegal structures whether occupied by equipment or humans, shall be allowed directly underneath or within Eskom servitude areas.

- Eskom Overhead Lines, Cables and Eskom Plant to be adequately protected against other services and water sources.

- Adequate protection fence should be installed around all Eskom Overhead Structures. The type of fence will be proposed and approved by Eskom CNC / Engineering as listed above.
- Interlocking bricks to be used along all roads and reserves as to ensure Eskom cables could be easily accessed for maintenance and repair / emergency purposes. No roads should be tarred with Eskom cables within the road.
- For developer projects and other works that might affect access to Eskom mini-subs, an appropriate fence with access / gate as approved by the CNC should be installed on street front side.
- The applicant shall ensure that the existing natural ground level is maintained within the Eskom servitude area and where Eskom cables are affected. Should there be a need for the lifting of lines and / or replacement of existing structures / cables and application should be made via **Eskom Customer Services**.
- The vertical clearance required between the road surface and the 11kV / 22kV power-lines shall be at least 6.4m. (Where applicable.)
- Eskom Plant and Cables to be protected from proposed landscaping i.e. no big trees and large plants / scrubs (large roots.) to be planted in close proximity to Eskom services.
- Construction / Amendment of boundary wall/s / fences to be closely monitored with guidance from the CNC – where walls / fences are in close proximity of Eskom Plant.
- At all entrances and road crossings, corrosion-free sleeves must be installed at least 600 mm below undisturbed ground level to provide for existing and future installation of Eskom cables. (Where applicable.)
- Cross trenches by hand need to be done for each road crossing on both sides of the road before the services are installed, to ensure Eskom services do not get damaged during drilling operations. For installations where the service will be installed parallel to Eskom services, cross trenches need to be done by hand at regular intervals, which is to be determined by site conditions and the Eskom PPM cables representative.
- The contractor must inform and update Eskom PPM cables on a weekly basis of the on-site work being planned and performed.

- Equipment shall be regarded electrically live and therefore dangerous at all times.
- Eskom may stipulate any additional requirements to illuminate any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.
- Security must be on-site 24/7 when trenching and working in close proximity to the Eskom 132 kV cables
- Extra care must be taken when working in close proximity to the 132 kV cables. (Eskom's PPM cables can assist in identifying these cables on-site.)
- The contractor in charge of the construction or maintenance work on site must at all times be in possession of the Approved Wayleave letter of the affected Eskom services, as well as all plans related to the wayleave application. This should be available upon the request of any Eskom and Municipal official, during site visits. If no approval is presented, then the Eskom Official(s) can order that all work to be ceased until approval can be presented.

20.24 Horizontal Drilling

- Not applicable

20.25 Pipe jacking / tunnelling

- Not applicable

20.26 **WATER ENVIRONMENTS**

- The contractor must ensure that where construction work is done over or in close proximity to water, provision is made for—
    - preventing persons from falling into water; and
    - the rescuing of persons in danger of drowning.
- The contractor must ensure that where a person is exposed to the risk of drowning by falling into the water, the person is provided with and wears a lifejacket.

20.27 Electrical installations

The installation of temporary electricity for construction shall be in accordance with Construction Regulations and the Electrical Installation Regulations. The Principal Contractor must ensure that:

- Existing services are located and marked before construction commences and the markings maintained during construction;
- Electrical installations and -machinery are sufficiently robust to withstand normal working conditions on site;
- Temporary electrical installations must be inspected at least once a week by a competent person and a record of the inspections kept in the SHE File;
- Electrical machinery used on a construction site must be inspected daily before start-up by the competent driver/operator or any other competent person and a record of the inspections kept in the SHE File; and
- A competent person appointed in writing must control and be responsible for all temporary electrical installations.
- An employer or user shall provide free of charge and maintain in good condition such protective equipment as may be necessary to prevent incidents, for use by persons engaged in working on or in close proximity to live electrical machinery or dead electrical machinery which may become live.

20.27.1 Electrical control gear

- The contractor shall ensure that all electrical machinery are provided with controlling apparatus and protective devices which shall, as far as is reasonably practicable, be capable of automatically isolating the power supply in the event of a fault developing on such machinery.
- The contractor shall place a switch, circuit breaker or fuse in the neutral conductor of a polyphase alternating current or three-wire direct current distribution system unless such switch, circuit breaker or fuse is so arranged as to isolate all phase conductors and the neutral conductor simultaneously: Provided that this shall not include an isolating link on the neutral conductor installed for test purposes or to prevent circulating currents.
- The contractor shall, whenever reasonably practicable, provide switchgear with an interlocking device so arranged that the door or cover of the switch cannot be opened unless the switch is in the 'off position and cannot be switched on unless the door or cover is locked.
- The contractor shall mark or label all controlling apparatus permanently so as to identify the system or part of the system or the electrical machinery which it controls, and where such control apparatus is accessible from the front and the back these markings shall be on both the front and the back.
- The contractor shall post a notice at switchgear or control gear which has been switched off or locked out to enable persons to work on electrical machinery or other machinery operated by electricity and controlled by. Such switchgear or control gear, warning against reclosing such switchgear or control gear.

20.27.2 Work on disconnected electrical machinery

- Without derogating from any specific duty imposed on employers or users of machinery by the Act, an employer or user shall, whenever work is to be carried out on any electrical machinery which has been disconnected from all sources of electrical energy, but which is liable to acquire or to retain an electrical charge, as far as is practicable, cause precautions to be taken by earthing or other means to discharge the electrical energy to earth from such electrical machinery or any adjacent electrical machinery if there is danger there from before it is handled and to prevent any electrical machinery from being charged or made live while persons are working thereon

20.27.3 Portable electric tools

No person shall use or permit the use of a portable electric tool with an operating voltage that exceeds 50 V to earth unless-

- It is connected to a source of electrical energy incorporating an earth leakage protection device, the construction of which meets the requirements of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act; or
- It is connected to a source of electrical energy through the interposition between each tool and the source of an individually double-wound isolating transformer, the secondary winding of which is not earthed at any point and the construction of which meets the requirements of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act; or
- It is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or it is clearly marked that it is constructed with double or reinforced insulation.

No person shall sell a portable electric tool constructed with double or reinforced insulation unless-

- It is clearly marked that it is constructed with such insulation; and Its insulation is constructed in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.
- No employer or user shall use or permit the use of a portable electric tool which is not fitted with a switch to allow for easy and safe starting and stopping of the tool.
- The employer or user shall maintain every portable electric tool, together with its flexible cord and plug, in good working order.

20.27.4 Switchboards

The contractor shall ensure that an unobstructed space for operating and maintenance staff is provided at the back and front of all switchboards, and the space at the back shall be kept closed and locked except for the purpose of inspection, alteration or repair: Provided that the requirements of this regulation with respect to the unobstructed space at the back of the switchboard shall not apply in the case of-

- switchboards which have no uninsulated conductors accessible from the back;
- switchboards, the switchgear of which is of a totally enclosed construction;
- switchboards, the backs of which are only accessible through an opening in the wall or partition against which they are placed, such openings being kept closed and locked; and
- switchboards which can be safely and effectively maintained from the front and which have all parts accessible from the front.

20.27.5 Electrical machinery in hazardous locations

- No person may use electrical machinery in locations where there is danger of fire or explosion owing to the presence, occurrence or development of explosive or flammable articles, or where explosive articles are manufactured, handled or stored, unless such electrical machinery, with regard to its construction relating to the classification of the hazardous locations in which it is to be used, meets the requirements of a safety standard incorporated for this purpose in these regulations under section 36 of the Act.
- Every user of electrical machinery shall be in possession of a certificate in a form acceptable to the chief inspector which has been issued by an approved inspection authority, in which it is certified that the electrical machinery has been manufactured and tested for the groups of dangerous articles in terms of the safety standard which has been incorporated in these regulations for this purpose under section 36 of the Act: Provided that in lieu of such certificate an inspector may approve permanent labeling on such machinery which contains all the relevant information.
- When diverse items of electrical machinery such as motors, cables and control apparatus are used together to form an electrical installation, the user shall ensure that the selection, arrangement, installation, protection, maintenance and working thereof results in no less a degree of safety than when the individual items of such machinery are used separately.
- The user shall use electrical machinery to which this regulation applies only under such conditions and in such surroundings as are prescribed in the safety standard incorporated in these regulations for this purpose under section 36
- No person shall effect repairs or adjustments to or otherwise work on electrical machinery under conditions (bullet 1) unless such machinery has been rendered dead and effective measures have been taken to ensure that such machinery remains dead.
- Wherever there is a possibility of the formation of static electricity under working conditions, the user shall earth all metallic structures, machine parts, pneumatic conveyor ducts and pipelines conveying flammable articles and the like, or take such other measures as may be necessary to effectively prevent the formation of electric sparks.
- The user shall cause all electrical machinery to which this regulation applies to be examined and tested at intervals not exceeding two years by a person who is competent to express an opinion on the safety thereof.
- The person carrying out the examination shall enter, sign and date the results of each such examination in a record book which shall be kept by the user for this purpose: Provided that where such machinery is subject to adverse climatic or physical conditions the frequency of such examinations shall be increased to intervals of no longer than one year or such shorter period as circumstances may necessitate.

20.27.6 Design and construction

- No person shall authorize, design, install or permit or require the installation of an electrical installation, other than in accordance with a health and safety standard incorporated into these regulations under section 44 of the Act: Provided that the components within an electrical installation shall comply with the standards referred to in the incorporated standard and proof of compliance shall be identifiable on the components or certification

shall be available from the supplier or manufacturer of the components: Provided further that items of an electrical installation not covered by such incorporated safety standard, and the conductors between the point of supply and the point of control, shall be installed in accordance with the by-laws or regulations of the supplier concerned.

- A registered person shall exercise general control over all electrical installation work being carried out, and no person shall allow such work without such control: Provided that where the voltage exceeds 1kV, the installation shall be designed and supervised by a person deemed competent in terms of paragraphs (b), (c) or (d) of the definition of a competent person in regulation 1 of the General machinery Regulations, 1998.
- No supplier shall restrict the application of a health and safety standard referred to in sub-regulation (1) when an electrical installation is installed, except where the distribution system of the supplier may be adversely affected by the application thereof.

20.27.7 Electrical contractor

- Any person, including a juristic person, who intends to do installation work as an electrical contractor shall register annually with the chief inspector in the form prescribed in annexure 1 of the Electrical Installations Regulations.

20.27.8 Commencement and permission to connect installation work

- No person shall commence with installation work which would require a new supply or an increase in electricity supply capacity unless the supplier has been notified thereof in the form of Annexure 3: Provided that the supplier may waive this requirement in respect of such types of work as it may specify.
- No person shall connect or permit the connection of any completed or partially completed electrical installation to the electricity supply unless it has been inspected and tested by a registered person and a certificate of compliance for that electrical installation has been issued: Provided that the supplier may on request connect the supply to the installation for the purpose of testing and completion of the certificate of compliance by a registered person: Provided further that this sub-regulation shall not apply in the case where the electricity was disconnected for the non-payment of the electricity account or where there has been a change of tenant but not of ownership.
- Where the supply to an electrical installation is 25kVA or above, the user shall appoint an approved inspection authority or a competent person who shall ensure the compliance from the commencement to the commissioning of the installation.

20.27.9 Issuing of certificate of compliance

Only registered person may issue a certificate of compliance in the form of annexure 4 and which shall be accompanied by a test report in the format approved by the chief inspector, after having satisfied himself or herself by means of an inspection and testing that—

- a new electrical installation complies with the provisions of regulation 7 (1) of the Electrical Installation Regulations (EIR); or
- an electrical installation which existed prior to the publication of the current edition of the health and safety standard incorporated into these regulations in terms of regulation 7 (1) (EIR), complies with the general safety principles of such standard; or
- an electrical installation which existed prior the publication of the current edition of the health and safety standard incorporated into these regulations in terms of regulation 7 (1) and to which extensions or alterations have been affected, that–

- ting part of the installation, complies with the general safety principles of such standard and is reasonable safe, and
- extensions or alterations affected comply with the provisions of regulation 7 (1) of the Electrical Installation Regulations (EIR).

- If at any time prior to issuing a certificate of compliance any fault or defect is detected in any part of the installation, the registered person shall refuse to issue such certificate: Provided that if such fault or defect in the opinion of the registered person constitutes an immediate danger to persons in the case where electricity is already supplied, he or she shall forthwith take steps to disconnect the supply to the circuit in which the fault or defect was detected and notify the chief inspector.

- Any person who undertakes to do electrical installation work shall ensure that a valid certificate of compliance is issued for that work.

No person shall amend a certificate of compliance issued by a registered person

20.28 Welding, flame cutting, soldering and similar operations

1. No contractor shall require or permit welding or flame cutting operations to be undertaken, unless -

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off where practicable and where not practicable all other persons exposed to the hazards contemplated in bullet two are warned and provided with suitable protective equipment.

2. No contractor shall require or permit welding or flame cutting operations to be undertaken in a confined space, unless:

- effective ventilation is provided and maintained; or
- masks or hoods maintaining a supply of safe air for breathing are provided and used by the persons performing such operations.

3. No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless --

- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations: Provided that the provisions of this sub-regulation shall not apply to a welding process where the maximum voltage to earth does not exceed 50 volts.

4. No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container --

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or

- contains any substance which, under the action of heat, may --
  (i) ignite or explode; or
  (ii) react to form dangerous or poisonous substances,

unless a person who is competent to pronounce on the safety thereof has, after examination, certified in writing that any such danger has been removed by opening, ventilating or purging with water or steam, or by any other effective means.

(5) Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

20.29 Tunnelling

No person may enter a tunnel, which has a height dimension of less than 800 millimetres.

20.30 Asbestos work

- If asbestos is identified on site, then the contractor must ensure that any asbestos work is carried out by an Asbestos Contractor registered with the Department of Employment and Labour.
- All work must be halted and the area where asbestos identified demarcated.
- In the case of type 2 and type 3 asbestos work, the registered asbestos contractor must:
  - undertake only the type of asbestos work for which they are registered by the chief inspector;
  - appoint an occupational health and safety representative.
  - Obtain an up-to-date inventory of asbestos prior to asbestos work taking place from the Client
- Before commencement of any asbestos work and during such work, the registered asbestos contractor must ensure that—
  - a risk assessment is performed that includes—
    (i) identification of the hazards to which persons may be exposed;
    (ii) an assessment of the risks related to the hazards based on a documented method; and
    (iii) documented control measures to mitigate the risk;
  - the risk assessment) is reviewed—
    (i) at regular documented intervals;
    (ii) when an incident has occurred; and
    (iii) when the scope of work changes; and
    (iv) an up-to-date copy of the risk assessment is made available at the relevant asbestos work site.
- The registered asbestos contractor must—
  - ensure that the approved plan of work is submitted to the Chief Director: Provincial Operations at least seven days prior to commencement of asbestos work;

- appoint in writing an asbestos removal supervisor for each asbestos work site, who must ensure—

  (i) occupational health and safety compliance on the asbestos removal site;
  (ii) compliance with safe asbestos removal or repair procedures;
  (iii) the correct use of personal protective equipment; and
  (iv) proper decontamination and waste disposal;

- adhere to the repair or removal methodology and associated control measures provided in the plan of work approved for that specific asbestos work;

- ensure that the employee medical and training records are available on site for inspection and validation;

- ensure that at least the following information for every employee is recorded and kept for a minimum period of 50 years-

  (i) Physical address of every asbestos work project; and
  (ii) names and identification numbers of employees potentially exposed;

- before commencement of asbestos work, ensure that—

  (i) an approved inspection authority has been appointed in writing by the asbestos client; and
  (ii) the registered asbestos contractor is registered and in good standing with the Compensation Fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993; and

- where a fatality or permanent disabling injury occurs during asbestos work, ensure that a report about the fatality or injury is provided to the Chief Director: Provincial Operations, and that the report includes the measures that the contractor intends to implement to ensure safe asbestos work.

20.31 Earthing

18. The contractor shall ensure that -

- roofs, gutters, downpipes and waste pipes on premises to which electrical energy is supplied to be earthed, except -
  - where the operating voltage does not exceed 50 V;
  - roofs made of non-conductive material or metal roofs covered by non-conductive material;
  - gutters, downpipes and waste pipes made of non-conductive material or gutters and downpipes attached to a metal roof which is covered by non-conductive material;
  - roofs, gutters, downpipes and waste pipes on premises which receive electricity by means of underground service connections:

Provided that the connection is to the conductive structures;

- all accessible metallic parts of electrical machinery that, though normally not forming part of an electrical circuit, may become live accidentally, to be protected by an insulating covering or to be otherwise enclosed or to be earthed and the resistance of the earth continuity path shall not exceed 0,2 ohm, except-
  - metal in earth-free situations, other than runs of metal wireway, and the close-fitting metal sheathing and armouring of cables;
  - short separate lengths of heavy-gauge metal wireway used for the mechanical protection of cables where such cables are not used in the secondary circuits of discharge luminaire installations;
  - short, unexposed separate lengths of metal wireway used for the mechanical protection of insulated wiring passing through walls, floors, partitions or ceilings;
  - metalwork of fixed electrical machinery where such metalwork is more than 2.4 m above the floor: Provided that this exception shall not apply where such metalwork is situated in any position likely to become damp, or in an elevator shaft, or near rotating machinery, or in contact with a wall, ceiling or other support constructed of or covered with conducting material;

- metal parts of electrical machinery where such parts are enclosed or shrouded by insulating material so that such metal parts cannot be touched;
- cleats, clips, saddles, clamps of other devices for fixing wireways and cables;
- shades, reflectors and guards supported on lamp holders or discharge luminaires;
- lamp caps;
- metal parts of or screws in or through non-conducting materials which are separated by such materials from current-carrying parts and from earthed non-current-carrying parts in such a way that in normal use they cannot become live or come into contact with earthed parts.

20.32 Noise

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan.

- Proof of training with regards to these regulations.
- That monitoring carried out by an AIA and done according to SABS 083.
- Medical surveillance programme is established and maintained for the necessary employees.
- Control of noise by means of:
  - Engineering methods considered
  - Admin control considered
  - Personal protective equipment considered/decided on
  - Describe how records are going to be kept for 40 years.

21. Monthly reporting

- The Principal Contractor is required to provide Johannesburg Water SOC Ltd. with a monthly report in the format provided on the last working day of the month.
- The report will include the monthly man-hours, incidents, training, inductions, audits, etc

22. Project close out

- Upon completion of the project, the contractor is required to hand over a consolidated project file to the Client with all the working documents for retention.
- The documents shall be submitted in an electronic format, preferably a memory stick or a downloadable link
- The contractor shall also ensure that the site is left in a safe manner that cannot cause injury or harm to JW employees or third parties.

Returnable Annexure A: Acknowledgement of SHE Specification & Annexures

CONTRACTOR:	

I, the undersigned, hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and the consequences of non-compliance. The Contractor furthermore reiterates its commitment to compliance of the requirements contained within the following provided documentation:

- Johannesburg Water SOC Ltd, Occupational Health and Safety Specification, Volume 2;
- Annexure 1: Baseline Risk Assessment
- Annexure 2: Medical Screening Policy

Signed at …… on this …….. Day of …… 20……...

CONTRACT MANAGER			
NAME	SURNAME	DATE	SIGNATURE
CONTRACT SUPERVISOR			
NAME	SURNAME	DATE	SIGNATURE
WITNESS (1)			
NAME	DESIGNATION	DATE	SIGNATURE
WITNESS (2)			
NAME	DESIGNATION	DATE	SIGNATURE

OHS CONTRACTORS' MANAGEMENT SYSTEM				
TENDER DOCUMENT SHE SPECS SIGN-OFF FORM				Johannesburg Water
REQUESTED BY	**MOTALE SELESHO**	**DATE**	**15/04/2025**	**JW OPS 077/24**

JW OPS 077/24: REPAIRS AND MAINTENACE OF LOW AND MEDIUM VOLTAGE ELCTRICAL INFRASTRUCTURE FOR BULK WASTEWATER WORKS AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS

LIST OF SHE SYSTEM ATTACHED TO THE TENDER DOCUMENT

SHE SYSTEM ATTACHED	Y/N	VERSION	NO PAGES	REMARKS
Volume 2 SHE Specification & Acknowledgement Form	Y	V2 – 09/16	53	For info
Baseline Risk Assessment	Y	V01 – 05/15	13	For info
Medical Screening Policy	Y	V01 – 05/15	8	For info
Returnable Annexure A	Y	V02 - 02/20	1	Return with tender document