

O. R. TAMBO DISTRICT MUNICIPALITY



O.R. TAMBO
DISTRICT MUNICIPALITY

CONTRACT NO.: ORTDM SCMU 03-24/25

DESCRIPTION: NYANDENI VILLAGE WATER SUPPLY SCHEME

WATER SERVICES INFRASTRUCTURE GRANT (WSIG)

SEPTEMBER 2024

NAME OF TENDERER:

TENDER AMOUNT:

CSD SUPPLIER NUMBER:

CLOSING DATE & TIME: **08 OCTOBER 2024, 12H00**

Prepared for:

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

Tel. No. (047) 501 6400

Prepared by:

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

Tel. No. (047) 501 6425

PLEASE CHECK

x / √

1. That you have read all the pages of the tender document.
2. That you have completed ALL the forms required to be completed in NON-ERASEABLE INK.
3. That your arithmetic calculation in the pricing schedule is correct.
4. That you have attached ALL necessary documentation relating to the Composition of the tendering entity, i.e.
 - (a) Company registration documents naming the shareholders and Directors / members of the company, close corporation etc.
 - (b) Joint venture agreement, if tendering entity is a joint venture.
5. That the **COMPLETE** tender document is submitted.
6. That the **FORM OF OFFER** is completed in full and signed.
7. That ALL returnable documents are submitted.
8. That ALL returnable schedules are completed and signed.
9. Ensure that your tender is submitted by **12H00 PM** on the closing date of the tender.

O.R. TAMBO DISTRICT MUNICIPALITY

CONTRACT NO.: ORTDM SCMU 03-24/25

NYANDENI VILLAGES WATER SUPPLY SCHEME

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TENDERS ARE HEREBY INVITED FOR:

CONTRACT NO.: ORTDM SCMU 03-24/25: NYANDENI, THUKELA AND LUQOLWENI VILLAGES WATER SUPPLY SCHEME

To ensure that your Tender is not exposed to invalidation, documents are to be completed in accordance with the conditions and Tender rules contained in the Tender documents. Supporting documents must be sealed and externally endorsed **CONTRACT NO.: ORTDM SCMU 03-24/25: NYANDENI, THUKELA AND LUQOLWENI VILLAGES WATER SUPPLY SCHEME** and be submitted in the open tender box, Ground Floor, O. R. Tambo District Municipality, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape, not later than 12H00pm on the **Tuesday 08 October 2024**.

The lowest or any Bid will not necessarily be accepted and the O. R. Tambo District Municipality reserves the right not to consider any tender not suitably endorsed or comprehensively completed as well as the right to accept a Tender in whole or part. Tenders will be adjudicated in accordance with the Supply Chain Management Policy of the O. R. Tambo District Municipality.

The following documents must be completed, signed (where applicable) and submitted as a complete set:

Document		Colour of pages
Number	Heading	
T1.1	Tender Notice and Invitation to Tender	White
T1.2	Tender Data	Pink
T2.1	List of Returnable Documents	Yellow
T2.2	Returnable Documents for tender evaluation purposes	Yellow
C1.1	Form of Offer and Acceptance	White
C1.2	Contract Data	White
C1.3	Operational Health & Safety Specification	White
C1.4	ORTDM Supply Chain Management Policy	White
C2.1	Pricing Instructions	Yellow
C2.2	Activity Schedule	Yellow
C3	Scope of Works	Blue
C4	Site Information	Green
C5	Additional Relevant Documents	White

TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited from suitably qualified and experienced contractors who are registered with CIDB for the Water Services Infrastructure Grant under the O.R. Tambo District Municipality.

Project Number	Name and Description	CIDB Grading	Briefing session
ORTDM SCMU 03-24/25	Nyandeni Village Water Supply	5CE PE or 6 CE or higher	Mhlontlo Local Municipality: Qumbu Municipal Offices then site

A compulsory clarification meeting with representatives of the client will take place at **10H00** on Friday, **13 September 2024** at Mhlontlo Local Municipality: Qumbu Municipal Offices then site.

THE MUNICIPALITY WILL NOT REPEAT ANY MATTERS ALREADY COVERED IN THE COMPULSORY BRIEFING MEETING TO THE BIDDERS WHO ARRIVE MORE THAN 10 MINUTES LATE TO THE MEETING, NOR WILL IT ALLOW SUCH BIDDERS TO COMPLETE THE ATTENDANCE REGISTER. ANY BID RECEIVED FROM A BIDDER WHO DID NOT ATTEND THE BRIEFING MEETING AND SIGN THE ATTENDANCE REGISTER WILL NOT BE CONSIDERED.

Bid documents should be downloaded on the e-Tender website (www.etenders.gov.za) alternatively on the O. R. Tambo website (www.ortambo.gov.za) at no cost.

Bids must be completed in black ink, enclosed in a sealed envelope and clearly marked with the "**Project number, project name and description**", deposited in the Open Tender Box, Ground Floor, O. R. Tambo District Municipality Building, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape, not later than **12H00pm on Tuesday, 08 October 2024.**

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

Tender submissions will be opened in public at 12H00 pm on Tuesday, 08 October 2024. The Municipality reserves the right not to accept the lowest priced tender or any tender at all, or to accept the whole or part of any tender.

RETURNABLE DOCUMENTS TO BE SUBMITTED WITH BID:

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

NB: CERTIFICATION OF DOCUMENTS MUST NOT BE MORE THAN SIX (6) MONTHS FROM DATE CERTIFIED BY COMMISSIONER OF OATHS.

THE BID WILL BE REJECTED IF THE BIDDER FAILS TO:

- Complete fully the bid document or to provide the information requested, or to sign the bid at the appropriate spaces provided or next to errors.
- Fill and properly sign the form of offer.
- Attach proof of registration with CSD.

- Proof of Registration with CIDB
- Attach audited annual financial statements of the bidding entity (for projects in excess of R10 million);
- Attach unaudited annual financial statements for close corporations and companies if the public interest score is below 350 in line with the companies act of 2008;
- Proof of latest municipal rates and taxes statement of the bidder indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal rates and taxes statement of each company director indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal water and sanitation charges statement of the bidder indicating that rates and taxes are not in arrears for more than 3 months for bidders who reside in the O. R. Tambo District Municipality area.
- Proof of latest municipal water and sanitation charges statement of each company director indicating that rates and taxes are not in arrears for more than 3 months for bidders who reside in the O. R. Tambo District Municipality area.
- Confirmation of address from a ward councillor where the bidder and company directors operate and reside in a peri-urban area where no rates and taxes and service charges are not billed.
- A copy of a valid lease agreement where the bidder does not own the property they are operating from.
- Attach joint Venture Agreement or Consortium Agreement signed and initialled on each page (if applicable).
- **NOTE:** Joint Ventures and Consortiums will only be considered provided they submit consolidated company registration documents and on award will be required to submit a joint venture or consortium bank account and a joint venture or consortium SARS Tax PIN.

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

Bids will be evaluated in three stages, namely:

- Stage 1- Mandatory Requirements
- Stage 2: Minimum conditions of tender
- Stage 3- Price and Specific Goals

Item	Weight
Stage 1 of Minimum conditions of tender	100
• Company Experience with respect to similar projects	60
• Qualifications and Experience of key staff assigned to the contract	40
Stage 2 of Evaluation- Price & Preference	100
• Specific Goal Points	20
• Price	80

CONDITIONS OF THE TENDER WITH REGARDS TO SUB-CONTRACTING

ITS IS THE CONDITION OF THIS TENDER THAT SUCCESSFUL TENDERER MUST SUBCONTRACT A MINIMUM OF 10% OF THE VALUE OF THE CONTRACT TO THE DESIGNATED GROUPS AS INFCATED IN THE TENDER DOCUMENT

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

Technical enquiries: Mr. N. Noto, telephone number 047 501 6425 or email: nkosiyabon@ortambodm.gov.za.

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

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

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

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

Mr. P. B. Mase

Municipal Manager

T1.2 TENDER DATA

The conditions of tender are the **Standard Conditions of Tender** as contained in Annexure F of the 30 January 2009 edition of the **CIDB Standard for Uniformity in Construction Procurement**. The Standard Conditions of Tender Procurements make several references to the Tender Data for details that apply specifically to the Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Please note that the word "Client" is used in this document and referred to as "Employer" in the Standard Conditions of Tender document.

Clause Number	
F.1	General
F.1.1	The Client is: O. R. Tambo District Municipality Private Bag X6043 Mthatha, 5099
F.1.2	The Tender documents issued by the Client comprise: Tender T1.1 Tender Notice and invitation to tender T1.2 Tender Data T2.1 List of Returnable Documents T2.2 Returnable Documents for tender evaluation purposes T2.3 Returnable Documents to be incorporated into the contract
	Contract Part 1 : Agreements and Contract data C1.1 Forms of Offer and Acceptance C1.2 Contract Data C1.3 Occupational health and safety specification C1.4 O.R. Tambo District Municipality's Health and Safety Specification Part 2 : Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantities
	Part 3 : Scope of Works C3.1 Description of the Works C3.2 Engineering C3.3 Procurement C3.4 Construction C3.5 Management C3.6 Annexures (Specification) Part 4: Site Information C4 Site information Part 5: Additional Relevant Documents Part 6: Contract Drawings

F1.3	<p>Interpretation The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these tender conditions.</p>	
F.1.4	<p>Communication: Communication with all stakeholders shall be through the O. R. Tambo Municipality’s Engineering Manager. Communications shall be in the English language. The Employer shall not take any responsibility for non-receipt of communications from or by a tenderer.</p>	
	<p>The Employer is O. R. Tambo District Municipality Private Bag x 6043 Mthatha 5099 Tel: (047) 501 6425 Email: nkosiyabon@ortambodm.gov.za Contact person: Mr. N. Noto</p>	<p>The employer’s agent is: Sokhani development and Consulting Engineers Cedar Square Office Park 4a Leadwood House Bonza Bay Road Beacon Bay, East London, 5201 Tel: (043) 726 4375 Email: lhanise@sokhani.co.za Contact Person: Mr B. Mdoda</p>
F.1.5	<p>The employer’s right to accept or reject any tender offer</p>	
F.1.5.1	<p>Reject or accept The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such a cancellation and rejection, but will give written reasons for such action upon written request to do so.</p>	
F.1.6	<p>Procurement procedures</p>	
F.1.6.1	<p>A contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.</p>	
F.2	<p>Tenderer’s obligations</p>	
F.2.1.1	<p>Eligibility Only those tenders who are registered with CIDB and have in their employ management and supervisory staff satisfying the requirement of the scope of work for labour intensive competencies for supervisory and management staff are eligible to submit tenders.</p>	
F.2.1.2	<p>CIDB Grading The required CIDB grading for this project is 5CE PE or 6 CE</p>	
F.2.2	<p>Cost of tendering Accept that the Employer will not compensate the tenderers for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.</p>	
F.2.3	<p>Check documents Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.</p>	
F.2.4	<p>Confidentiality and copyright Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.</p>	
F.2.5	<p>Reference documents Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.</p>	

F2.6	<p>Acknowledge Addenda Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension of the closing time stated in the tender data, in order to take the addenda into account.</p>	
F.2.7	<p>The arrangements for a compulsory clarification meeting are:</p>	
	<p>Date: Friday, 13 September 2024 Starting time: 10h00</p>	<p>Location: Mhlontlo Local Municipality Qumbu Municipal Offices, then proceed to site</p>
F.2.8	<p>Seek clarification Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.</p>	
F2.10	<p>Pricing the tender</p>	
F.2.10.1	<p>Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.</p>	
F.2.10.2	<p>Show VAT payable by the employer separately as an addition to the tendered total of the prices.</p>	
F.2.10.3	<p>Provide rates and prices that are fixed for the duration of the Contract, and not subject to adjustment except as provided for in the conditions of contract identified in the Contract data.</p>	
F.2.10.4	<p>State the rates and prices in South African Rand</p>	
F2.11	<p>Alterations to documents Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.</p>	
F.2.12	<p>Alternative tender offers Alternative offers may be submitted only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.</p>	
F.2.13.5	<p>The Client's address for delivery of Tender offers and identification details to be shown on each Tender offer package are:</p>	
	<p>Location of Tender box: Tender Box, Ground Floor, O. R. Tambo District Municipality Building, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape.</p>	
	<p>Physical address: O. R. Tambo House, Nelson Mandela Drive, Mthatha</p>	
F.2.14	<p>Information and data to be completed in all respects Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.</p>	
F.2.15	<p>Closing time The closing time for submission of Tender is 12H00pm Tuesday, 08 October 2024 .</p>	
F.2.15	<p>Telephonic, telegraphic, telex, facsimile or e-mailed Bid offers will not be accepted.</p>	
F.2.16	<p>Tender offer validity The Tender offer validity period is 90 Days as stated in the tender data.</p>	
F.2.17	<p>Clarification of tender offer after submission The tenderer shall provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.</p>	

F.2.18	<p>Provide other material The tenderer shall, when requested by the Employer to do so, Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer’s commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer’s request, the employer may regard the tender offer as non-responsive.</p>
F.2.20	<p>Submit securities, bonds, policies Submit to the employer before formation of the contract, certificates of insurance required in terms of the conditions of contract identified in the contract data.</p>
F.2.23	<p>The tenderer is required to submit with his tender: (1) a valid Tax Verification Pin issued by the South African Revenue Services; and (2) Certified copy of the original of all the Companies / CC Registration documents. (3) Joint Venture Agreement where applicable in CIDB format (signed and initialed on each page). (4) Proof of registration with CIDB (5) Certified copies of the original green bar-coded ID copies of Members of the companies.</p>
F.3	<p>The employer’s undertakings</p>
F.3.1	<p>Respond to requests from the tenderer</p>
F.3.1.1	<p>Respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.</p>
F.3.2	<p>Issue Addenda If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until seven days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.</p>
F.3.4	<p>Opening of tender submissions</p>
F.3.4.1	<p>The employer shall open valid tender submissions in the presence of tenderers’ agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.</p>
F.3.4.2	<p>Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.</p>
F.3.4.3	<p>The Client shall not be obliged to make available the record outlined in F.3.4.2 to any tenderer who fail to attend the tender opening.</p>
F.3.6	<p>Non-disclosure The client shall not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.</p>

F.3.7	<p>Grounds for rejection and disqualification Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.</p>
F3.9	<p>Arithmetical errors, omissions and discrepancies</p>
F.3.9.1	<p>Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.</p>
F.3.9.2	<p>Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:</p> <ul style="list-style-type: none"> a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the pricing schedule or bills of quantities; or c) arithmetic errors in: <ul style="list-style-type: none"> i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or ii) The summation of the prices.
F.3.9.3	<p>Notify the tenderer of all errors or omissions that are identified in the tender offer and invite the tenderer to either confirm the tender offer as tendered or accept the corrected total of prices.</p>
F.3.9.4	<p>Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:</p> <ul style="list-style-type: none"> a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected. b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.
F.3.10	<p>Clarification of a tender offer Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.</p>

F3.11	<p>Evaluation of tender offers</p> <p><i>Replace the contents of the entire sub-clause with the following:</i></p> <p>The procedure for evaluation of responsive tender offers will be method 2 of table F.1 of SANS 294: 2004. Financial offer & Preferences. The bid will be awarded to the bidder who has scored the highest points for price and preferences combined BUT the prerequisite will be to obtain at least 70 points for quality (functionality), which will be explained in Stage 1 below.</p> <p>Nevertheless, O. R. Tambo District Municipality retains the right to accept any bid.</p> <p>B. First stage in evaluation: Compliance with Bid Rules and other Requirements The bids will be checked to ensure that they comply with the bid rules and all other requirements of the project document. In particular, the following documentation must be completed and/or included within the bid.</p> <ul style="list-style-type: none"> • The form of Offer and Acceptance • Audited financial statements for any tender price over R10million • Certified company registration documents and ID of members • Form C: Compulsory Enterprise Questionnaire • Form D: Certificate of Authority for Signature • Form E: Amendments, Qualifications and Alternatives • Form H: Certificate of Good Standing • Form I: Relevant experience • Form J: Details of key staff and CVs • Form M: Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2017 <p>Note:</p> <ul style="list-style-type: none"> • All information supporting the above forms such as Curricula Vitae of staff who will work on the project and their functions, details of ownership, relevant experience etc. • Addenda issued during the bid period, if any. • The pricing schedule <p>Failure to supply the required information will compromise the bid</p> <p>C. Next Stage in Evaluation: Quality / Functionality; Price & Specific Goal Points The next state in the evaluation process will consist of two stages, as follows:</p> <p>STAGE 1: MINIMUM CONDITIONS OF TENDER</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">ITEM</th> <th style="text-align: center;">WEIGHT</th> </tr> </thead> <tbody> <tr> <td>Minimum conditions of tender (see detailed criteria below)</td> <td style="text-align: center;">100</td> </tr> <tr> <td> <ul style="list-style-type: none"> • Experience with respect to similar projects </td> <td style="text-align: center;">60</td> </tr> <tr> <td> <ul style="list-style-type: none"> • Qualifications and Experience of key staff assigned to the contract </td> <td style="text-align: center;">40</td> </tr> </tbody> </table> <p>Only bidders who score 70 points or more on stage 1 will be evaluated further and therefore eligible for award.</p> <p>The maximum score for minimum conditions of tender shall be 100, distributed as follows:</p>	ITEM	WEIGHT	Minimum conditions of tender (see detailed criteria below)	100	<ul style="list-style-type: none"> • Experience with respect to similar projects 	60	<ul style="list-style-type: none"> • Qualifications and Experience of key staff assigned to the contract 	40
ITEM	WEIGHT								
Minimum conditions of tender (see detailed criteria below)	100								
<ul style="list-style-type: none"> • Experience with respect to similar projects 	60								
<ul style="list-style-type: none"> • Qualifications and Experience of key staff assigned to the contract 	40								

MINIMUM CONDITIONS OF TENDER		
	Minimum conditions of tender	Maximum tender evaluation points provided
B1.1	Experience on similar projects	60
	Experience on similar projects: Proven experience in the construction of Water Supply pipelines, concrete reservoirs etc. or Waterborne Sewer pipelines contracts. Copies of Certificate of Completion MUST be submitted with the bid. No points will be awarded where Certificates of Completion have not been submitted with the Bid. If the value of completed project is not reflected on the certificate, provide contractor's appointment or letter from the client with values.	60
	The Contractor has successfully completed at least Four (4) projects that satisfies the sub-criteria and provided evidence whose total sum of a value of R30 Million.	60
	The Contractor has successfully completed at least Three (3) projects that satisfies the sub-criteria and provided evidence whose total sum of a value of R25 Million.	40
	The Contractor has successfully completed at least Two (2) projects that satisfies the sub-criteria and provided evidence whose total sum of a value of R20.0 Million.	20
	Contractor failed to provide evidence of experience.	0
B1.2	Qualifications and Experience of key personnel (NB no key personnel member may be assigned more than one duty on the Contract, i.e. different personnel must be assigned for each of the following key positions) Contracts Manager = Minimum ND Civil Engineering/ NQF level 6, Site Agent = Minimum N6 Civil Engineering and Foreman = Minimum Grade12/ N3 Civil Engineering/ Plumbing. Bidders must submit CV's/Resume and contactable references.	40
	Contracts Manager, Site Agent, Foreman	
	Favourable previous experience in the Civil Engineering field with a minimum of 5 years; Contracts Manager = 20 points, 3-4 years = 15 points & 1-2 years = 8 points.	20
	Favourable previous experience in the Civil Engineering field with a minimum of 5 years; Site Agent = 12 points, 3-4 years = 8 points & 1-2 years = 6 points.	12
	Favourable previous experience in the Civil Engineering field with a minimum of 5 years; Foreman = 8 points, 3-4 years = 6 points & 1-2 years = 4 points.	8
	Contractor failed to provide evidence of qualification and experience.	0

STAGE 2: EVALUATION FOR PRICE AND PREFERENCE (80/20)

The procedure for Stage 2 of evaluation of responsive tenders is **Method 2**

a) PRICE..... 80

b) SPECIFIC GOAL POINTS CONTRIBUTION:.....20

a) Points Awarded for Price (Ps)

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

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

Where

Ps = Points scored for price of bid under consideration

Pt = Rand value of bid under consideration

Pmin = Rand value of lowest acceptable bid

b) Points awarded for Specific Goal Points

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

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

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

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

F.3.13	Acceptance of tender offer
F3.13.1	<p>Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:</p> <p>a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,</p> <p>b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,</p> <p>c) has the legal capacity to enter into the contract,</p> <p>d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,</p>
	<p>e) complies with the legal requirements, if any, stated in the tender data, and</p> <p>f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.</p>
F3.13.2	<p>Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful tenderer as described in the form of offer and acceptance.</p>
F.3.14	<p>Notice to unsuccessful tenderers</p> <p>After the successful tenderer has acknowledged the employer's notice of acceptance, after written request, the employer will notify the tenderers that their tender offers have not been accepted on the O. R. Tambo District Municipality's website: www.ortambodm.gov.za, by listing the successful tender.</p>
F.3.15	<p>Prepare Contract documents</p> <p>If necessary, revise documents that shall form part of the Contract and that were issued by the employer as part of the tender documents to take account of:</p> <p>a) addenda issued during the tender period,</p> <p>b) inclusion of some of the returnable documents,</p> <p>c) other revisions agreed between the employer and the successful tenderer, and</p> <p>d) The schedule of deviations attached to the form of offer and acceptance, if any.</p>
F.3.16	<p>Issue final contract</p> <p>Prepare and issue the final draft of the contract to the successful tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any).</p>

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tenderer must complete the following returnable documents:

T2.2 Returnable Documents required for Tender evaluation purposes		
1	Form 2.2.1	General Information of the Tenderer
2	Form 2.2.2	Authority for Signatory
3	Form 2.2.3	Schedule of Previous Experience
4	Form 2.2.4	Schedule of Current Projects
5	Form 2.2.5	Declaration of good standing regarding tax
6	Form 2.2.6	Certificate of Attendance at Site Meeting
7	Form 2.2.7	Proposed Key Personnel
8	Form 2.2.8	Schedule Equipment to be used
9	Form 2.2.9	Schedule of Proposed Sub-Contractors
10	Form 2.2.10	Financial References
11	Form 2.2.11	Municipal Bidding Documents (MBD forms)

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

T2.2 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

- Form 2.2.1 General Information of Tenderer
- Form 2.2.2 Authority of Signatory
- Form 2.2.3 Schedule of Previous Experience
- Form 2.2.4 Schedule of Current Projects
- Form 2.2.5 Declaration of good standing regarding tax
- Form 2.2.6 Registration on the Central Supplier Database
- Form 2.2.7 Certificate of Attendance at Site Meeting
- Form 2.2.8 Proposed Key Personnel
- Form 2.2.9 Schedule of Proposed Sub – Consultants
- Form 2.2.10 Financial References
- Form 2.2.11 Municipal Bidding Documents (MBDs)

FORM 2.2.1 GENERAL INFORMATION OF TENDERER

1. **Name of Tenderer:**

2. **Contact details**

Address :

Tel no :

Fax no :

Cell no :

E-mail address:

3. **Legal entity: Mark with an X.**

Sole proprietor	
Partnership	
Close corporation	
Company (Pty) Ltd	
Joint venture	

In the case of a Joint venture, provide details on joint venture members:

Joint venture member	Type of entity (as defined above)

4. **Income tax reference number:**
(in case of a joint venture, provide for all joint venture members)

5. **Municipal services area where the enterprise is registered:**
(in case of a joint venture, provide for all joint venture members)

6. **Company / close corporation Registration Number:**
(in case of a joint venture, provide for all joint venture members)

7. **VAT Registration number:**
(in case of a joint venture, provide for all joint venture members)

8. **CIDB registration number:**
(in case of a joint venture, provide for all joint venture members)

ATTACH THE FOLLOWING DOCUMENTS HERETO

1. For Closed Corporations
Certified copies of CK1 or CK2 as applicable (Founding Statement)
2. For Companies
Certified copies of Shareholders register
3. ID copies
Certified ID Copies for members
4. CIDB registration
Proof of registration with CIDB
5. CSD registration
Proof of registration with Central Supplier Database
6. For Joint Venture Agreements
Copy of the Joint Venture Agreement between all the parties, as well as the certified documents in (1), and or (2) and (4) and (4) of each Joint Venture member.
7. Copy of the latest municipal service account where enterprise is registered
8. Director's / Shareholder's Municipal Rates
9. Specific Goal Points Contribution
10. Central Supplier Database Summary Report

FORM 2.2.2 AUTHORITY OF SIGNATORY

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

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A. Certificate for Company

I,....., chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on.....202....,Mr/Mrs.....acting in the capacity of... ..,was authorised to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witness

1.....
.....
Chairman

2.....
.....
Date

B. Certificate of Partnership

We, the undersigned, being the key partners in the business trading as hereby authorise Mr/Mrs....., acting in the capacity of.....to sign all documents in connection with the tender for Contract.....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.

C. Certificate for Joint Venture

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

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner CIDB registration no		Signature :..... Name :..... Designation :.....
CIDB registration no		Signature :..... Name :..... Designation :.....
CIDB registration no		Signature :..... Name :..... Designation :.....
CIDB registration no		Signature :..... Name :..... Designation :.....

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

D. Certificate for Sole Proprietor

I,, hereby confirm that I am the sole owner of the business trading

as.....

As Witness:

1.....

.....

Signature: Sole owner

2.....

.....

Date

E. Certificate for Close Corporation

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

Hereby authorise Mr/Mrs.....

Acting in the capacity of....., to sign all documents in connection with the tender

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

NAME	ADDRESS	SIGNATURE	DATE

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

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

FORM 2.2.3 SCHEDULE OF PREVIOUS EXPERIENCE

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

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

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM 2.2.4 SCHEDULE OF CURRENT PROJECTS

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

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

Name of Tenderer: Date:

Signature:

Full name of signatory:

FORM 2.2.5 DECLARATION OF GOOD STANDING REGARDING TAX

SOUTH AFRICAN REVENUE SERVICES	Tender No: Closing Date:																			
DECLARATION OF GOOD STANDING REGARDING TAX																				
PARTICULARS																				
1. Name of Taxpayer/Tenderer:																				
2. Trade Name:																				
3. Identification Number: (If applicable)	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td> </tr> </table>																			
4. Company / Close Corporation registration number:	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td> </tr> </table>																			
5. Income Tax reference number:	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td> </tr> </table>																			
6. VAT registration number: (If applicable)	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td> </tr> </table>																			
7. PAYE employer's registration number: (If applicable)	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td><td style="width: 12.5%;"></td> </tr> </table>																			
8. Monetary value of Bid:	<table border="1" style="width: 100%; height: 30px;"> <tr> <td style="width: 100%;"></td> </tr> </table>																			
<i>DECLARATION</i>																				
<p>I, the undersigned, the above taxpayer/Bidder, hereby declare that my Income Tax, Pay-As-You-Earn (PAYE) and Value-Added-Tax (VAT) obligations of the above-mentioned taxpayer, which include the rendition of returns and payment of the relevant taxes:</p> <p>(i) Have been satisfied in terms of the relevant Acts; or</p> <p>(ii) That suitable arrangements have been made with the Receiver of Revenue,.....to satisfy them.*</p>																				
..... SIGNATURE CAPACITY DATE																		
<p><u>PLEASE NOTE:</u> The declaration (ii) cannot be made unless formal arrangements have been made with the Receiver of Revenue with regard to any outstanding revenue/outstanding tax returns.</p>																				

SARS TAX COMPLIANCE PIN:

FORM 2.2.6 REGISTRATION ON THE CENTRAL SUPPLIER DATABASE

Attach proof of registration with the Central Supplier Database. **This information is material to the award of the Contract.**

**ATTACH CERTIFIED PROOF OF REGISTRATION ON THE NATIONAL
CENTRAL SUPPLIER DATABASE**

FORM 2.2.7 CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to certify that I, (Name)

duly authorised representative of (Tenderer)

Address:
.....

Visited the site on..... (date) in the presence of

.....
(Engineer)

I have made myself familiar with the sites and all the local conditions likely to influence the work and the cost thereof.

I further certify that I am satisfied with the description of the work and explanations given by the said Engineer and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

REPRESENTATIVE OF TENDERER

REPRESENTATIVE OF EMPLOYER

FORM 2.2.8 PROPOSED KEY PERSONNEL

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

No	Name	Qualification	Designation	YEARS WITH CURRENT COMPANY

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM 2.2.9 SCHEDULE OF PROPOSED SUB-CONTRACTORS

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

NB: It is NOT a Condition of Contract that a minimum of 10% of the construction work shall be subcontracted to QSEs and EMEs as contemplated in the 'The Broad-Based Black Economic Empowerment Act (No. 53 of 2003) as amended by B-BBEE Act 46 of 2013 (The Act)'. The Contractor shall take all reasonable and practical measures to support, mentor, train, upskill and supervise such subcontractors as envisaged in the Strategic Objectives of the Amended Construction Sector Code.

Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Engineer.

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM 2.2.10 FINANCIAL REFERENCES

FINANCIAL STATEMENTS

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

DETAILS OF TENDERERS BANKING INFORMATION

I/We hereby authorise the Client/Engineer to approach all or any of the following banks for the purposes of obtaining a financial reference:

BANK NAME:									
ACCOUNT NAME: <i>(e.g. ABC Civil Construction cc)</i>									
ACCOUNT TYPE: <i>(e.g. Savings, Cheque etc)</i>									
ACCOUNT NO:									
ADDRESS OF BANK:									
CONTACT PERSON:									
TEL. NO. OF BANK / CONTACT:									
How long has this account been in existence:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">0-6 months</td> <td style="width: 30px; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">7-12 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">13-24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">More than 24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> (Tick which is appropriate)	0-6 months	<input type="checkbox"/>	7-12 months	<input type="checkbox"/>	13-24 months	<input type="checkbox"/>	More than 24 months	<input type="checkbox"/>
0-6 months	<input type="checkbox"/>								
7-12 months	<input type="checkbox"/>								
13-24 months	<input type="checkbox"/>								
More than 24 months	<input type="checkbox"/>								

Name of Tenderer:

Date:

Signature:

Full name of signatory:

ATTACH AUDITED
FINANCIAL STATEMENTS

FORM 2.2.11 MUNICIPAL BIDDING DOCUMENTS (MBD)

MBD 1

**PART A
INVITATION TO BID**

BID NUMBER:	ORTDM SCMU 03-24/25	CLOSING DATE:	08 OCTOBER 2024	CLOSING TIME:	12h00
DESCRIPTION:	NYANDENI ,THUKELA AND LUQOLWENI VILLAGES WATER SUPPLY SCHEME				

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT:

<i>TENDER BOX, GROUND FLOOR, O.R. TAMBO DISTRICT MUNICIPALITY BUILDING</i>
<i>NELSON MANDELA DRIVE</i>
<i>MYEZO PARK</i>
<i>MTHATHA</i>
<i>EASTERN CAPE</i>

SUPPLIER INFORMATION

NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		CSD No:		
STATEMENT OF RATES AND TAXES OF THE BIDDER	<input type="checkbox"/> Yes <input type="checkbox"/> No		STATEMENT OF RATES AND TAXES OF THE COMPANY	<input type="checkbox"/> Yes <input type="checkbox"/> No	

[STATEMENT OF RATES AND TAXES OF THE BIDDER AND OF THE COMPANY/ LEASE AGREEMENT FOR LEASED PROPERTY MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS]

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO: TECHNICAL INFORMATION MAY BE DIRECTED TO:

DEPARTMENT	SCM DEPARTMENT	CONTACT PERSON	Mr. N. Noto
CONTACT PERSON	Mr. Sakhiwo Hopa	TELEPHONE NUMBER	047 501 6425
TELEPHONE NUMBER	047 501 6449	FACSIMILE NUMBER	N/A
FACSIMILE NUMBER	N/A	E-MAIL ADDRESS	nkosiyabon@ortambodm.gov.za
E-MAIL ADDRESS	sakhiwoh@ortambodm.gov.za		

**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:		
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.	
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED).	
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, 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)?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> YES <input type="checkbox"/> 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. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

DECLARATION OF INTEREST

- 1. No bid will be accepted from persons in the service of the state¹.
- 2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
- 3. 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, shareholder²):
.....
 - 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
.....

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

Full name	Identity number	State employee number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

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

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
1.	Are you by law required to prepare annual financial statements?		
1.1	If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the last 3 years.		

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
2.	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than 3 months or any other service provider in respect of which payment is overdue for more than 30 days?		
2.1	If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than 3 months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2	If yes, provide details:		

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
3.	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?		
3.1	If yes, provide details:		

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
4.	Will any portion of the goods or services be sourced from outside the Republic, and if so, what portion, and whether any portion of payment from the municipality is expected to be transferred outside of the Republic?		
4.1	If yes, provide details:		

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 THIS DECLARATION
 PROVE TO BE FALSE.

.....

Signature

.....

Date

.....

Position

.....

Name of Bidder

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

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

	POINTS
PRICE	80
SPECIFIC GOAL POINTS	20
Total Points For Price and Specific Goal Points	100

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

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

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the

- time of bid invitation, and includes all applicable taxes;
- (d) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

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

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

- Copy of business registration documents, as issued by CIPC.
- Certified copy of identity documents of directors/ shareholders/ partners / members, as the case may be.
- Original Valid Tax Clearance Certificate or a Confirmation of Tax Validity with the pin issued by SARS.
- Proof of latest municipal rates and taxes statement **of the bidder** indicating that rates and taxes are not in arrears for more than 3 months.

- Proof of latest municipal rates and taxes statement of each **company director** indicating that rates and taxes are not in arrears for more than 3 months.
- Proof of latest municipal water and sanitation charges statement **of the bidder** indicating that rates and taxes are not in arrears for more than 3 months for bidders who reside in the O. R. Tambo District Municipality area.
- Proof of latest municipal water and sanitation charges statement of each **company director** indicating that rates and taxes are not in arrears for more than 3 months for bidders who reside in the O. R. Tambo District Municipality area.
- Confirmation of address from a ward councillor where the bidder and company directors operate and reside in a peri-urban area where no rates and taxes and service charges are not billed.
- A copy of a valid lease agreement where the bidder does not own the property they are operating from

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 suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) Forward the matter for criminal prosecution, if deemed necessary.

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

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>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)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM 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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.

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

- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

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

- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

PROJECT NO.: ORTDM SCMU 03-24/25:

NYANDENI VILLAGE WATER SUPPLY

in response to the invitation for the bid made by:

O.R. TAMBO DISTRICT MUNICIPALITY

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 consortium³ will not be construed as collusive bidding.

- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid;
 - or
 - (f) bidding with the intention not to win the bid.

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

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

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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

T2.3 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

Form 2.3.1 Record of Addenda to Tender Documents

Form 2.3.2 Procurement Form

FORM 2.3.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

(Addenda received from Engineer for amendments on Tender Documentation)

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM 2.3.2 PROCUREMENT FORM

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

DEFINITIONS

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

“Council” refers to the O. R. TAMBO DISTRICT Municipality.

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

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

“Historically disadvantaged individuals (HDIs)” means all South African citizens –

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

“SMME’s” (small, medium and micro enterprises) refers to separate and distinct business entities, including co-operative enterprises and NGOs, managed by one owner or more, as defined in the National Small Business (Act 102 of 1996). Refer to the attached addendum for a definition of SMME’s for different economic sectors.

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

1. Technical adjudication and General Criteria

- Tenders will be adjudicated in terms of inter alia:
- Compliance with Tender conditions
- Technical specifications

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

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

- A Tax Verification Pin. (**Only valid tax verification pin** must be attached to the Tender document).
- Pages to be completed, removed from the Tender document, and have therefore not been submitted.
- Failure to complete the schedule of quantities as required
- Scratching out without initialling next to the amended rates or information.
- Writing over / painting out rates / the use of tippex or any erasable ink, e.g. Pencil.
- Failure to attend compulsory site inspections
- The Tender has not been properly signed by a party having the authority to do so, according to the **Form 2.2.2 – “Authority for Signatory”**
- No authority for signatory submitted.
- Form of Offer not completed.
- Particulars required in respect of the Tender have not been provided – non-compliance of Tender requirements and/or specifications.
- The Tenderer’s attempts to influence, or has in fact influenced the evaluation and/or awarding of the contract.
- The Tender has been submitted after the relevant closing date and time
- Each page of the Contract portion of this Tender document (Part C1 – C4) must be initialled by the authorised person in order for the document to constitute a proper Contract between the Employer (ORTDM) and the undersigned.
- If any municipal rates and taxes or municipal service charges owed by that Tenderer or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three months.
- If any Tenderer who during the last five years has failed to perform satisfactorily on a previous contract with the municipality or any other organ of state after written notice was given to that Tenderer that performance was unsatisfactory.

2. Size of enterprise and current workload

Evaluation of the Tenderer’s position in terms of:

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

3. Staffing profile

Evaluation of the Tenderer’s position in terms of:

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

4. Financial ability to execute the contract:

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

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

5. Good standing with SA Revenue Services

- Determine whether an original tax pin an original valid tax clearance certificate has been submitted.
- The Tenderer must affix a Tax Verification Pin to page T2.2.9 of the Tender document.

6. Penalties

The O.R. Tambo District Municipality will if upon investigation it is found that a preference in terms of the Contract has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Municipal Manager, one or more of the following penalties will be imposed:

- Cancel the contract and recover all losses or damages incurred or sustained from the Tenderer.
- Impose a financial penalty of twice the theoretical financial preference associated with the claim, which was made in the Tender.
- Restrict the suppliers, its shareholders and directors on obtaining any business from the O.R. Tambo District Municipality for a period of 5 years.

DECLARATION

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

The information furnished is true and correct.

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

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

Signature of Tenderer

Signed at _____ on _____ day of _____ 202__

For the tenderer

WITNESSES:

1. _____

2. _____

C1 AGREEMENTS AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Special Conditions
- C1.4 Occupational Health and Safety Agreement
- C1.5 Supply Chain Management Policy

FORM C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **PROJECT NO.: ORTDM SCMU 03-24/25: NYANDENI VILLAGE WATER SUPPLY.**

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

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

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

.....
.....

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

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 Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) _____

Name(s) _____

Capacity _____

For the tenderer _____
(Name and address of organisation)

Name & Signature
Of Witness _____
Name Date

ACCEPTANCE

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

The terms of the contract are contained in:

- Part 1 Agreements and Contract Data (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site information
- Part 5 Additional Relevant Documentation
- Part 6 Contract Drawings

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 6 above.

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

The Tenderer shall within two weeks 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 Contract 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 this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

Signature(s) _____

Name(s) _____

Capacity _____

For the tenderer _____
(Name and address of organisation)

Name & Signature
Of Witness _____

Name

Date

SCHEDULE OF DEVIATIONS

Notes:

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

1 **Subject** _____

Details _____

2 **Subject** _____

Details _____

3 **Subject** _____

Details _____

4 **Subject** _____

Details _____

5 **Subject** _____

Details _____

6 **Subject** _____

Details _____

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance. It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE TENDERER:

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name & Signature
Of Witness _____ Date _____

FOR THE EMPLOYER

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name & Signature
Of Witness _____ Date _____

FORM C1.2 CONTRACT DATA

PART C1.2 DATA PROVIDED BY THE EMPLOYER

Notes to Tenderer:

1. The Tenderer is not required to complete this data in full.
2. Please read both the General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015) and the relevant parts of its Guidance Notes to understand the implications of this Data which the tenderer is required to complete.
3. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering www.saice.org.za
4. The number of the clause which requires the data is shown in the left-hand column for each statement; however, other clauses may also use the same data
5. Each item of data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.
6. The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities, and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.
7. The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Contract Data below. Each item of data given below is cross – referenced to the clause in the General Conditions of Contract to which it mainly applies
8. The following contract specific data are applicable to this Contract:

Clause	Statement	Data
	The <i>conditions of contract</i> are	The General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015)
1		General
1.1.1.13	<i>Defects Liability Period</i> is	12 months after the Completion Date
1.1.1.14	<i>Due Completion Date</i> is	6 months from the access date (as described in clause 5.4.1)
1.1.1.15	The <i>Employer</i> is	O. R. Tambo District Municipality
1.1.1.16	The <i>Employer’s Agent</i>	To which this <i>Contract</i> relates shall be the delegated individual specified in writing by the Employer within seven days of the commencement date.
1.1.1.17	The <i>Employer’s Agent Representative</i>	To which this <i>Contract</i> relates shall be the delegated individual specified in writing by the Employer’s Agent within seven (7) days of the commencement date.
1.1.1.26	The <i>Pricing Strategy</i> is	<i>A re-measurement contract</i>
1.1.1.29	<i>The Site is</i>	All Areas within the boundaries of Nyandeni, Thukela and Luqolweni, Mhlontlo Ward 19
1.1.1.30	The <i>Site Information</i> is	Specified in Part C4: Site Information of this document
1.1.1.33	The <i>Works</i> are	Specified in Part C3: Employer’s Works Information of this document

C1.2: Contract Data

1.2.1	The Employer's delivery address is	
	Physical Address	O. R. Tambo House Nelson Mandela Drive Mthatha 5100
	Postal Address	Private Bag X 6043 Mthatha 5100
	Email Address	Shall be specified by the <i>Employer</i> within Seven days of the commencement date.
1.2.1	The <i>Employer's Agent's</i> delivery address	Sokhani development and Consulting Engineers Cedar Square Office park 4a Leadwood House, Bonza Road Beacon Bay East London, 5201 E-mail: ghanise@sokhani.co.za Telephone: (043) 726 4375
1.3.2	The law of the contract is the law of	the Republic of South Africa that applies to agreements executed and wholly performed within the Republic of South Africa
1.3.3	The <i>language of this Contract</i> is	English
3		Employer's Agent
3.2.3	The <i>Employer's Agent</i> shall first consult and obtain specific approval	from the <i>delegated Principal Consultant, Sokhani Development and Consulting Engineers</i> , prior to executing any of its functions or duties, with respect to following clauses: <ol style="list-style-type: none"> 1. all the <i>Employer Agent's</i> actions as contemplated in Clause 3.3.1 2. all the <i>Employer Agent's</i> actions as contemplated in Clause 3.3.4 3. all the <i>Employer Agent's</i> actions as contemplated in Clause 5.11.1 4. all the <i>Employer Agent's</i> actions as contemplated in Clause 5.12.4 5. all the <i>Employer Agent's</i> actions as contemplated in Clause 6.4.1 6. all the <i>Employer Agent's</i> actions as contemplated in Clause 6.6.3 7. all the <i>Employer Agent's</i> actions as contemplated in Clause 10.1.5 8. all the <i>Employer Agent's</i> actions as contemplated in Clause 10.2.3
3.2.4	The <i>Employer's Agent</i> for Health and Safety	To which this Contract relates shall be the delegated individual specified in writing by the Employer's Agent within seven days of the commencement date.
3.2.4	The <i>Employer's Agent</i> for Social Facilitation	To which this Contract relates shall be the delegated individual specified in writing by the Employer's Agent within seven days of the commencement date.

5		Time and Related Matters
5.1.1	The special non-working days set out in the <i>Contract</i> are	the following: 1. South African Public Holidays, and 2. Annual builders' holiday traditionally starts on or around 15 December and ends in the second week of January.
5.3.1	The <i>Engineer's Agent</i> shall issue an <i>instruction</i> to the Contractor to commence with the Work	On approval of the following documentation: 1. Health and Safety Plan 2. OHS Agreement 3. Department of Labour (DoL) notification of Cconstruction work 4. Initial Programme 5. Letter of Good Standing 6. Performance Guarantee 7. Insurance for the Works 8. Contractor's Key Personnel Which will be within 07 days after the approval of the Documentation required from the Contractor
5.3.2	The Contractor is to Submit the documentation stipulated in clause 5.3.1	Within 07 days of the Commencement Date
5.4.1	Access to and possession to the Site	is granted on the date of the site handover meeting which should occur no later than Seven (07) days after Employer's Agent's instruction to commence carrying out the Works referred to in Clause 5.3.1.
5.8.1	The non-working days set out in the <i>Contract</i> are The special non-working days set out in the <i>Contract</i> are	weekends the following: 1. all South African gazetted public holidays, and 2. Annual builders' holiday traditionally starts on or around 15 December and ends in the second week of January. The year-end builders' holiday does not exceed 15 workingdays in duration

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

Where:

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

Nw = Actual number of days during the calendar month on which rainfall of 10mm or more has been recorded;

Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records, as stated in the Site Information, on which rainfall of 10 mm or more has been recorded for the calendar month;

Rw = Actual rainfall in mm recorded for the calendar month under consideration; and

Rn = Average rainfall in mm for the calendar month as derived from existing rainfall records as stated in the Site Information.

The number of days per month on which work is expected not to be possible as a result of abnormal rainfall are as per the table below;

MONTH	EXPECTED NUMBER OF WORKING DAYS LOST AS A RESULT OF ABNORMAL RAINFALL
JANUARY	7
FEBRUARY	5
MARCH	4
APRIL	3
MAY	2
JUNE	2
JULY	2
AUGUST	2
SEPTEMBER	4
OCTOBER	5
NOVEMBER	5
DECEMBER	6

C1.2: Contract Data

5.13.1	The penalty for delay or late completion is	If the Contractor fails by the Due Completion Date to complete the Works, or any specific portion thereof that is identified in the Scope of Works to the extent which entitles him in terms of Clause 5.14.2 to receive a Certificate of Practical Completion for the Works, then the Contractor shall be liable to the Employer for the sum(s) stated below as (a) penalty/ies for every day which shall elapse between the Due Completion Date for the Works or the specific portion of the Works and the actual Date of Practical Completion of the Works or of the specific portion. The penalty for delay shall be R5 000 or 0.02% of the Contract Value (excluding VAT) per day; whichever is the higher value. "
6		Payment and related matters
6.2.1	The performance guarantee for liability of the Contractor for claims made against the Contractor arising out of the Contractor's failure to deliver the requested Works per the standards, practices, methods and procedures conforming to applicable laws and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under similar circumstance is	10% of the Contract Price
6.2.2	The security of ten percent retention of the value of the Works	<i>Shall be deducted from the Contractor's first three payment certificates in equal increments as per the SCM Policy.</i>
6.8.2	Contract Price Adjustment Factor	is not applicable for this contract
6.10.1.5	The advance payment percentage limit for plant and materials delivered to Site but not yet built into the <i>Permanent Works</i> is	80% of the value of the materials.
6.10.1.5	The advance payment percentage limit for plant and materials not yet supplied to Site	is not applicable for this contract
6.10.3	The percentage retention is	10% of the value of the Works
6.10.3	The limit of retention money is	05% of the value of the Works
8		Risks and related matters
8.6.1.1.2	The value of plant and materials supplied by the Employer to be included in the insurance sum is	NIL
8.6.1.3	The minimum limit of indemnity for insurance in respect of loss of or property damage (except for the Works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this Contract for any one event is:	R5,000,000
8.6.1.5	a) The minimum limit of indemnity for insurance in respect of loss or damage to the Works, Plant and Materials	The replacement cost thereof.

C1.2: Contract Data

	b) The minimum limit of indemnity for insurance in respect of the death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this <i>Contract</i> for any one event is	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common-law liability for people falling outside the scope of the Act with a limit of indemnity of not less than R1 000 000 (One Million South African Rand).
10		Claims and disputes
10.5.3	The Adjudication Board shall consist of	one (1) member
10.7.1	The determination of disputes shall be by arbitration	
10.7.2	The arbitration procedure is	the latest edition of Rules for the Conduct of Arbitrations published by the Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Mthatha
	The person who shall choose an arbitrator	the Chairman of the Association of Arbitrators (www.arbitrators.co.za) or its successor body.

PART C1.2.3 DATA PROVIDED BY THE CONTRACTOR		
Notes to Tenderer:		
<p>9. The Tenderer is required to complete this data in full.</p> <p>10. Please read both the General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015) and the relevant parts of its Guidance Notes to understand the implications of this Data which the tenderer is required to complete.</p> <p>11. The number of the clause which requires the data is shown in the left-hand column for each statement; however, other clauses may also use the same data</p>		
CLAUSE	STATEMENT	DATA
	The <i>conditions of contract</i> are	The General Conditions of Contract for Construction Works, Third Edition, 2015. (GCC 2015)
1		General
1.1.1.9	<i>The Contractor is</i>	_____
1.2.1	The Contractor's delivery address is	
	Physical Address	_____
	Postal Address	_____ _____
	Email Address	_____
4.4.2	The <i>Contractor</i> must Sub-Contract any parts of the Contract.	To which this Contract relates shall be the <i>minimum of 10% of the Value of the Works</i> that must be Sub-Contracted to a Local SMME or the Designated Groups as agreed during the Procurement of the Sub-Contractors.
4		Contractor's General Obligations
4.10.2	Contractor shall provide monthly reports outlining compliance with	Site progress and Employer's CPG and EPWP objectives at intervals specified in Part C3: Employer's Works Information of this document.
4.11.1	<i>Contractor's</i> Competent Employees are:	
	Title	Construction Manager
	Name	
	Qualifications	
	Tel No	
	Email	_____

C1.2: Contract Data

	Title	Site Agent	
	Name		
	Qualifications		
	Tel No		
	Email	_____	
	Title	Construction Site Foreman	
	Name		
	Qualifications		
	Tel No		
	Email	_____	
	Title	Safety Officer	
	Name		
	Qualifications		
	Tel No		
	Email	_____	
	SACPMP Registration Number		
4.12.2	Contractor's Superintendence:	The Contractor's Site Agent, Site Foreman and Safety Officer MUST be on site at all times when work is being performed. No work may be performed without these persons being on site.	
Should the Contractor decide to use other Personnel rather than the one's listed above, must do it in writing, and the proposed Personnel must have the same or very similar Qualifications and experience			
Security			
6.2.1	The security to be provided by the Contractor shall be one of the following:		
	Type of security		Select (Tick)
	1. Cash Deposit of 10% of the Contract Sum plus retention of 10% of the value of Works		
	2. Fixed Performance Guarantee of 10% of the Contract Sum plus retention of 10% of the value of Works		
	Note A		
	The Performance Guarantee shall be of an Insurance Company listed on the Johannesburg StockExchange or owned by such a company, a Registered South African Bank or a recognised government sponsored, provincial or national development agency		

PART C1.4 SPECIAL CONDITIONS OF CONTRACT		
<p>Notes to Tenderer:</p> <ol style="list-style-type: none"> Particular Conditions of the Contract defines conditions that are specific to a Project. The Particular Conditions of the Contract are used for addition/ omission and change of General Conditions of the Contract. The number of the clause which requires the data is shown in the left-hand column for each statement; however, other clauses may also use the same data 		
Clause	Statement	Data
		Amendment of GCC 2015 Clauses
	<i>Employer's SCM Policy</i>	
	<i>Insertion of additional clause</i>	<p>The parties agree that this contract shall be subject to the Employer's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised.</p> <p>Abuse of the supply chain management system is not permitted and may result in cancellation of the contract, restriction of the supplier, and/or the exercise by the Employer of any other rights and remedies available to it as described in the SCM Policy</p>
	<i>Ambiguity and discrepancy</i>	
	Insertion of additional wording:	<p>All parts of the Contract should be read together and that their original purpose is to be mutually explanatory. However, if there is a discrepancy between the information provided, the order of priority of contract documents is as stated below:</p> <ol style="list-style-type: none"> the Contract Agreement the Letter of Acceptance (this is the formal acceptance of the contractor's tender and usually presents the point in time when Contractual Parties enter the Contract), the Contract Data, the Particular Conditions of the Contract the General Conditions of the Contract, the Specification, the Drawings, and the Schedules and any other document forming part of the Contract <p>In the event of a discrepancy or ambiguity, the document of higher priority takes precedence.</p>
	<i>Assignment</i>	
	Delete wording and replace with the following:	<p>The Employer will, at all times, be entitled to cede its rights and/or delegate its obligations under this Contract and/or assign this Contract to any financier and/or nominee of any financier of the Employer for purposes of the programme. Any cession and/or delegation and/or assignment by the Employer to any such financier or nominee of any financier is expressly permitted. The Contractor shall, if requested thereto by the Employer and/or any such financier, sign a separate authority giving effect to the aforementioned in such form as the Employer and/or any financier of the Employer may reasonably require</p>

C1.4: Contract Data

	<p>The Employer will, at all times, be entitled to cede its rights and/or delegate its obligations under this Contract and/or assign this Contract to any financier and/or nominee of any financier of the Employer for purposes of the programme. Any cession and/or delegation and/or assignment by the Employer to any such financier or nominee of any financier is expressly permitted. The Contractor shall, if requested thereto by the Employer and/or any such financier, sign a separate authority giving effect to the aforementioned in such form as the Employer and/or any financier of the Employer may reasonably require</p>
	<p>The Contractor shall not be entitled to cede any of its rights and/or delegate any of its obligations under this Contract to any person without the prior written consent of the Employer.</p>
<p><i>Access to and possession of Site</i></p>	
<p>Insertion of additional wording:</p>	<p>The Employer allows access to, possession and use of each part of the Site to the Contractor which is necessary for the work included in this contract. The Employer shall grant access and use of the Site no later than seven days after Employer's Agent's instruction to commence with the Works.</p> <p>If the Employer does not give the Contractor access to, possession and use of the Site within seven days of the Employer's Agent instruction to commence with the Works, access to, possession and use of the Site shall be as the date when Employer's Agent instructed the Contractor to commence with the Works.</p>
<p><i>Some reasons for extension of time</i></p>	
<p>Insertion of additional wording:</p>	<p>No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working dates listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of clause 5.12</p> <p>The number of days quoted below shall be regarded as fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work</p>

MONTH	EXPECTED NUMBER OF WORKING DAYS LOST AS A RESULT OF ABNORMAL RAINFALL
JANUARY	7
FEBRUARY	5
MARCH	4
APRIL	3
MAY	2
JUNE	2
JULY	2
AUGUST	2
SEPTEMBER	4
OCTOBER	5
NOVEMBER	5
DECEMBER	6
TOTAL	47

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day is experienced.

It shall be noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be considered.

Termination by the Employer

Insertion of additional wording

- 9.2.1.3.9 Has substantially broken a health or safety regulation.
- 9.2.1.3.10 Failure to obtain access to Site due to non-compliant documentation as stated in clause 5.3.1
- 9.2.1.3.11 Has failed to provide or update the required insurances within the prescribed time
- 9.2.1.4 Where the Works are no longer required
- 9.2.1.5 Where the funding for the Works is no longer available
- 9.2.1.6 An event occurs that stops the Contractor from completing the works by the date shown on the Accepted Programme and is forecast to delay Completion by more than 13 weeks
- 9.2.1.7 The Service Provider becomes insolvent or Liquidated
- 9.2.1.8 If as a result of Force Majeure, the Service provider is unable to perform part or the whole service for a period of thirty 30 days.

Right of Retention

The Contractor hereby waives and abandons any and all lien and/or any other right of retention that the Contractor now has or in future may have, in terms of the Contract, the common law or otherwise, in respect of the works, the Site or any property belonging to the Employer and shall under no circumstances be entitled to withhold delivery of the same to the Employer. The Contractor warrants that all Subcontractors shall, mutatis mutandis, waive and abandon any such Subcontractor's lien or any other right of retention, in favour of the Employer.

Joint Ventures	
Suppose the <i>Contractor</i> constitutes a joint venture, consortium, or other unincorporated groupings of two or more persons or organisations. In that case, these persons or organisations are deemed to be jointly and severally liable to the <i>Employer</i> for the performance of this <i>Contract</i> .	
Unless already notified to the <i>Employer</i> , the persons or organisations notify the <i>Employer's Agent</i> within two weeks of the date of acceptance of the Contract of the key person who has the authority to bind the <i>Contractor</i> on their behalf.	
The <i>Contractor</i> does not alter the composition of the joint venture, consortium, or other unincorporated groupings of two or more persons without the consent of the <i>Employer</i> having been given to the <i>Contractor</i> in writing.	
Nothing in this Contract shall be deemed to create any joint venture, partnership or principal-agent relationship between the Parties and neither Party shall hold itself out in its advertising or otherwise in any manner which would indicate or imply such relationship with the other Party according to this Contract	
The dissolution of the <i>Joint Venture</i> shall be deemed as a separation and that constitutes the Contract to be Terminated	
Illegal or Corrupt Practices	
Any offer, payment, consideration, or benefit of any kind made by the <i>Contractor</i> , which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, an inducement or reward for the award or in the execution of this <i>Contract</i> constitutes grounds for terminating the <i>Contractor's</i> obligation to Provide the Works or taking any other action as appropriate against the <i>Contractor</i> (including civil or criminal action).	
The Employer may terminate the <i>Contractor's</i> obligation to provide the Works if the <i>Contractor</i> (or	
	any member of the <i>Contractor</i> where the <i>Contractor</i> constitutes a joint venture, consortium or other unincorporated groupings of two or more persons or organisations), or a director of any such entity, is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.
SCC4.3	Such practices include, but are not limited to, the making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the Employer or other people or organisations and including in circumstances where the <i>Contractor</i> or any such member is removed from the approved vendor database of the <i>Employer</i> as a consequence of such practice.
Confidentiality	
The <i>Contractor</i> does not disclose or make any information arising from or in connection with this <i>Contract</i> available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the <i>Contractor</i> , enters the public domain or to information which was already in possession of the <i>Contractor</i> at the time of disclosure (evidenced by written records in existence at that time). Should the <i>Contractor</i> disclose information to Others in terms of clause 25.1, the <i>Contractor</i> ensures that the provisions of this clause are complied with by the recipient.	
Any information communicated by the <i>Employer</i> to the <i>Contractor</i> in connection with the Contract and any secret and/or confidential information of the <i>Employer</i> otherwise acquired by the <i>Contractor</i> shall be regarded by the <i>Contractor</i> as strictly confidential and shall not, without the prior written consent of the <i>Employer</i> in each instance, be published or disclosed to any other party or be used for any purpose whatsoever other than to execute the Works.	
If the <i>Contractor</i> is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise in writing by the <i>Employer's Agent</i> .	
Suppose the <i>Contractor</i> is, at any time, required by law to disclose any such information which is required to be kept confidential. In that case, the <i>Contractor</i> , to the extent permitted by law before disclosure, notifies the <i>Employer</i> so that an appropriate protective order and/or any other action can be taken if possible, before any disclosure. If such protective order is not, or cannot, be obtained, then the <i>Contractor</i> may only disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment shall be afforded to the information so disclosed.	

C1.4: Contract Data

	<p>The taking of images (whether photographs, video footage or otherwise) of the works or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the <i>Employer's Agent</i>. All rights in and to all such images vests exclusively in the <i>Employer</i>.</p>
	<p>The Contractor ensures that all his subcontractors abide by the undertakings in this clause.</p>
<p>Existing Services and Housekeeping</p>	
	<p>The Site may be in continuous operation and, accordingly, the <i>Contractor</i> shall assume that existing services and access ways shall be in continuous use and fully operational at all times.</p>
<p>The Contractor shall be held responsible for repair or making good of existing installations that may be required due to any act or omission of whatever nature by the <i>Contractor</i> and for any costs to the <i>Employer</i> which may arise, due to the <i>Contractor</i> preventing in any manner whatever the normal operation and use of such services and access ways.</p>	
<p>During the execution of the Works, the <i>Contractor</i> shall keep the Site reasonably free from all unnecessary obstructions and shall store or dispose of any <i>Contractor's</i> Equipment and surplus materials and without delay clear away and remove from the Site any wreckage, rubbish or temporary works no longer required.</p>	
<p>The <i>Contractor</i> must use and/or attend to all areas of the Site which are used by it or under its control from time to time in a safe, professional and responsible manner.</p>	
<p>The Contractor shall be responsible for all areas of the Site which are used by it or under its control from the time the area in question is made available to the <i>Contractor</i> until the time the <i>Employer</i> requires the Site to be returned to it or otherwise when the <i>Contractor</i> demobilises from the area of the Site in question and returns to the <i>Employer</i> all of the <i>Employer's</i> property.</p>	
<p>The <i>Contractor</i> must ensure that all such areas of the Site are kept at all times in a safe, clean and hygienic condition and in good working order and repair and the <i>Contractor</i> shall promptly repair, at its cost, any damage to the Site which is attributable to the <i>Contractor</i> or its employees of sub-contractors, failing which the <i>Employer</i> shall be entitled to repair the Site and recover the cost of such repairs from the <i>Contractor</i>.</p>	
<p>Any damages suffered by the <i>Employer</i> as aforesaid shall be paid by the <i>Contractor</i> within ten business days or shall be set off against any amounts owing to the <i>Contractor</i> by the <i>Employer</i>.</p>	
<p>The <i>Contractor</i> shall not unnecessarily interfere with the operations of the <i>Employer</i> or Others at the Site. The <i>Employer</i> has the right to refuse access to the Site to any of the <i>Contractor's</i> employees, representatives and/or subcontractors whom it suspects of being a health and safety or other risk.</p>	
<p>The Contractor shall not have any lien or right of retention in respect of the Site, the works and/or any other property belonging to the <i>Employer</i>.</p>	
<p>Indemnity against Contractor's Design</p>	
<p>The <i>Contractor</i> indemnifies and keeps indemnified the <i>Employer</i> against any losses and costs, including legal costs between attorney and client, and all other expenses whatsoever that the <i>Employer</i> may incur as a result of any action, proceeding or claim made against the <i>Employer</i> arising from the use of a design constituting an infringement of patent rights, design registration, registered trademarks or other exclusive rights in respect thereof. This indemnity does not apply to any infringement which is solely due to the <i>Contractor</i> having followed in its entirety instructions stipulated by the <i>Employer</i>.</p>	
<p>The <i>Employer</i> shall give the <i>Contractor</i> prompt notice of any such action, proceeding, claim or threat instituted or made against it or both of them. Promptly after the giving of such notice the Parties are to consult together about the subject of the notice and the <i>Employer</i> may at its option decide to a) permit the Contractor at the <i>Contractor's</i> own expense to conduct any litigation that may ensue and all negotiations for a settlement of such litigation or claim with the proviso that the <i>Contractor</i> keeps the <i>Employer</i> informed of all steps that are taken and of the outcome; or b) conduct any litigation that may ensue and all negotiations for a settlement, in which event the <i>Employer</i> shall act in consultation with the <i>Contractor</i> and shall keep the <i>Contractor</i> informed of all aspects that are taken and of the outcome.</p>	

<p>The <i>Contractor</i> hereby cedes and agrees to cede all intellectual property, excluding intellectual property in respect of which the <i>Contractor</i> can demonstrate proprietorship prior to the date of signature hereof, but including intellectual property specifically developed by the <i>Contractor</i> on behalf of the <i>Employer</i> under instruction and payment by the <i>Employer</i> and including all current and future technical information relating to the works; technical concepts; know-how; specifications; data; formulae; computer programs; design; patent and / or applications in respect thereof; copyrighted works; memoranda; scripts; reports; manuals; diagrams; drawings; including engineering drawings; prototypes; drafts in performing the works, whether completed or not and whether accepted, amended or rejected, and the like relating to the works, whether patented or not, and includes all intellectual property relating to the works developed by or on behalf of the <i>Employer</i>, to the <i>Employer</i>, its successors, assigns or legal representatives locally and / or internationally, together with the right to apply for Letters Patent in respect thereof.</p>
<p>It is further agreed that the <i>Employer</i> may apply in its name and its own cost for Letters Patent in respect of such inventions and registration of such designs locally and/or internationally.</p>
<p>The <i>Contractor</i> hereby agrees that when requested, he shall without any charges to the <i>Employer</i>, but at the latter's expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents relating to the works and/or the patent applications in any and all countries and for vesting titled thereto in the <i>Employer</i>, its successors, assign or legal representatives and the <i>Contractor</i> confirms and agrees that he shall assist the <i>Employer</i> to ensure that total and complete cession and transfer of all right, title and interest in the intellectual property takes place.</p>
<p>Time</p>
<p>The <i>Contractor</i> acknowledges that time is of the essence to the performance of its obligations in terms of this Contract.</p>
<p>Discovery/Reproduction of Documentation</p>
<p>The <i>Contractor</i> hereby authorises the <i>Employer</i> to reproduce all documentation made available by the <i>Contractor</i> to the <i>Employer</i> in connection with this <i>Contract</i>. In so far as the <i>Contractor</i> has any copyright protection in the items that are so reproduced by the <i>Employer</i>, the <i>Contractor</i> hereby grants a right and license to the <i>Employer</i> to reproduce the same for the purposes specified in this <i>Contract</i>. The <i>Contractor</i> keeps the <i>Employer</i> informed of any threats or claims made against it in respect of infringement of patent or other exclusive rights by virtue of the provision of the works.</p>
<p>Damages</p>
<p>The <i>Employer</i> shall be entitled, in its sole discretion, to claim and recover from the <i>Contractor</i> damages <i>in lieu of</i> any penalty agreed upon in terms of this <i>Contract</i>.</p>
<p>Accrual</p>
<p>Unless otherwise provided <i>herein</i>, rights which accrue to a Party in terms of this <i>Contract</i> shall survive its termination.</p>
<p>Commitments and Undertakings</p>
<p>Neither Party shall be bound by any express, tacit or implied term, representation, warranty, promise nor the like not recorded <i>herein</i>. This <i>Contract</i> supersedes and replaces all prior commitments, undertakings or representations, whether oral or written, between the Parties in respect of the subject matter hereof.</p>
<p>Validity and Enforceability of Contract</p>
<p>If any provision of this <i>Contract</i> is found to be invalid, unlawful or unenforceable, that provision shall be severable from the remaining provisions of this <i>Contract</i>, which shall continue to be valid and enforceable.</p>
<p>Strategic Socio-Economic Objectives</p>
<p>in terms of which the <i>Contractor</i> gives unconditional warranties and undertakings committing itself to the promotion of the strategic socio-economic objectives stipulated herein, including, but not limited to, warranties and undertakings to the effect that –</p>
<p>the Specific Goal Points information disclosed to the <i>Employer</i> in the bid response to the Tender Invitation</p>

	pursuant to which it was appointed, as supplemented subsequently in writing, is accurate and complete and that it shall maintain at least those levels of Specific Goal Points for the duration of the contract;
	it shall only subcontract aspects of the Works to Subcontractors with which it has concluded Subcontracts and actively take steps towards achieving the Employer's CPG requirements for the empowerment of Subcontractor/s
	it shall ensure that the execution of the Works and the expenditure of the project costs results in the achievement of the general socio-economic and empowerment objectives
	<p>it shall keep detailed records of –</p> <p>its equity ownership and control and, where applicable, that of its duly appointed Subcontractors and/or suppliers.</p> <p>a) its total spends on targeted enterprises used to fulfil its obligations in terms of the contract.</p> <p>b) any transformation programmes and/or initiatives relating to skills development and transfer, employment equity and enterprise development of the Subcontractors and Target Individuals; and any public benefits and/or job opportunities created according to the fulfilment of its obligations in terms of the contract and provide monthly reports outlining compliance with such objectives to the Employer;</p>
	Contractor Obligations
	in terms of which the Contractor unconditionally warrants and undertakes that, in its performance of its obligations under the Contract, it shall, at all times, -
	owe a duty of care to the ORTDM and comply with the reasonable directions issued to it by the Employer, Employer's Agent and/or Employer's Agent Representative;
	not do anything that constitutes, or is reasonably likely to constitute, a corrupt act or that is otherwise intended or is likely to harm the reputation of the ORTDM, the Contract; and
	Undertake the Works in accordance with the standards, practices, methods and procedures conforming to applicable law, and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under similar circumstances.

FORM OF GUARANTEE

PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:.....

Physical Address:.....

“Employer” means:.....

“Contractor” means:.....

“Employer’s Agent” means:
.....

“Works” means:.....

“Site” means:.....

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of R.....

Amount in words:.....

“Guaranteed Sum” means: The maximum aggregate amount of R.....

Amount in words:.....

Type of Performance Guarantee:(Insert Variable or Fixed)

“Expiry Date” means:..... (Give date) or any other later date set by the Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here.

CONTRACT DETAILS

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

1. VARIABLE PERFORMANCE GUARANTEE

1.1 Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods to diminishing amounts of the Guaranteed Sum as follows:

1.1.1 From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum:

R.....

(Amount in words)

1.1.2 From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, whichever occurs first:

R.....

(Amount in words)

1.2 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

2. FIXED PERFORMANCE GUARANTEE

2.1 Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

2.2 The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.

2.3 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

3. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

3.1 The Guarantor hereby acknowledges that:

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

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

3.2 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:

- 3.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;
- 3.2.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;
- 3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.
- 3.3 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
- 3.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
- 3.3.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and
- 3.3.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 3.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.
- 3.5 Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 3.6 Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 3.7 Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 3.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider fit and the Guarantor shall not have the right to claim

his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

- 3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 3.12 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrates' Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

FORM C1.3 SPECIAL CONDITION

Payment for the labour-intensive component of the Works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

Applicable labour laws

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1 Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

1.2 In this document –

- (a) "**Department**" means any department of the State, implementing agent or contractor;
- (b) "**Employer**" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;
- (c) "**Worker**" means any person working in an elementary occupation on a SPWP;
- (d) "**Elementary** occupation" means any occupation involving unskilled or semi-skilled work;
- (e) "**Management**" means any person employed by a department or implementing agency to administer or execute an SPWP;
- (f) "**Task**" means a fixed quantity of work;
- (g) "**task-based work**" means work in which a worker is paid a fixed rate for performing a task;
- (h) "**task-rated worker**" means a worker paid on the basis of the number of tasks completed;
- (i) "**time-rated worker**" means a worker paid on the basis of the length of time worked.
- (j) "**Task rate or daily rate**" = *As per Government Gazette*

2 Terms of Work

- 2.1 Workers on a SPWP are employed on a temporary basis.
- 2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.
- 2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

3 Normal Hours of Work

- 3.1 An employer may not set tasks or hours of work that require a worker to work–
 - (a) More than forty hours in any week

- (b) On more than five days in any week; and
- (c) For more than eight hours on any day.

3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4 Meal Breaks

4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5 Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8 Work on Sundays and Public Holidays

8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.

8.2 Work on Sundays is paid at the ordinary rate of pay.

8.3 A task-rated worker who works on a public holiday must be paid –

- (a) The worker's daily task rate, if the worker works for less than four hours;
- (b) Double the worker's daily task rate, if the worker works for more than four hours.

8.4 A time-rated worker who works on a public holiday must be paid –

- (a) The worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
- (b) Double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

9 Sick Leave

- 9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- 9.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- 9.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- 9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 9.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- 9.7 An employer must pay a worker sick pay on the worker's usual payday.
- 9.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - (a) Absent from work for more than two consecutive days; or
 - (b) Absent from work on more than two occasions in any eight-week period.
- 9.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 9.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

10 Maternity Leave

- 10.1 A worker may take up to four consecutive months' unpaid maternity leave.
- 10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife, or qualified nurse certifies that she is fit to do so.
- 10.5 A worker may begin maternity leave –
 - (a) four weeks before the expected date of birth; or
 - (b) On an earlier date –
 - (i) If a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - (ii) if agreed to between employer and worker; or
 - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- 10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 10.7 A worker who returns to work after maternity leave has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

11 Family responsibility leave

- 11.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
- (a) When the employee's child is born;
 - (b) When the employee's child is sick;
 - (c) In the event of a death of –
 - (i) The employee's spouse or life partner;
 - (ii) The employee's parent, adoptive parent, grandparent, child, adopted child, grandchild, or sibling.

12 Statement of Conditions

- 12.1 An employer must give a worker a statement containing the following details at the start of employment –
- (a) The employer's name and address and the name of the SPWP;
 - (b) The tasks or job that the worker is to perform; and
 - (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
 - (d) The worker's rate of pay and how this is to be calculated;
 - (e) The training that the worker will receive during the SPWP.
- 12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- 12.3 An employer must supply each worker with a copy of these conditions of employment.

13 Keeping Records

- 13.1 Every employer must keep a written record of at least the following –
- (a) The worker's name and position;
 - (b) In the case of a task-rated worker, the number of tasks completed by the worker;
 - (c) In the case of a time-rated worker, the time worked by the worker;
 - (d) Payments made to each worker.
- 13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

14 Payment

- 14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- 14.2 A task-rated worker will only be paid for tasks that have been completed.
- 14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

- 14.4 A time-rated worker will be paid at the end of each month.
- 14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- 14.6 Payment in cash or by cheque must take place –
 - (a) At the workplace or at a place agreed to by the worker;
 - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
 - (c) In a sealed envelope which becomes the property of the worker.
- 14.7 An employer must give a worker the following information in writing –
 - (a) The period for which payment is made;
 - (b) The numbers of tasks completed or hours worked;
 - (c) The worker's earnings;
 - (d) Any money deducted from the payment;
 - (e) The actual amount paid to the worker.
- 14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it
- 14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

15 Deductions

- 15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- 15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- 15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order, or arbitration award concerned.
- 15.4 An employer may not require or allow a worker to –
 - (a) Repay any payment except an overpayment previously made by the employer by mistake;
 - (b) State that the worker received a greater amount of money than the employer actually paid to the worker; or
 - (c) Pay the employer or any other person for having been employed.

16 Health and Safety

- 16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- 16.2 A worker must –
 - (a) Work in a way that does not endanger his/her health and safety or that of any other person;
 - (b) Obey any health and safety instruction;
 - (c) Obey all health and safety rules of the SPWP;
 - (d) Use any personal protective equipment or clothing issued by the employer;
 - (e) Report any accident, near-miss incident, or dangerous behaviour by another person to their employer or manager.

17 Compensation for Injuries and Diseases

- 17.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 17.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 17.3 The employer must report the accident or disease to the Compensation Commissioner.
- 17.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

18 Termination

- 18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 18.2 A worker will not receive severance pay on termination.
- 18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 18.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

19 Certificate of Service

- 19.1 On termination of employment, a worker is entitled to a certificate stating –
 - (a) The worker's full name;
 - (b) The name and address of the employer;
 - (c) The SPWP on which the worker worked;
 - (d) The work performed by the worker;
 - (e) Any training received by the worker as part of the SPWP;
 - (f) The period for which the worker worked on the SPWP;
 - (g) Any other information agreed on by the employer and worker

MONTHLY REPORTING

The successful bidder will be expected to assist with monthly reporting. These will include progress reports, labour reports, etc, submitted to the Project Manager on the dates to be stipulated.

FORM C1.5 HEALTH AND SAFETY AGREEMENT

HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2003

SECTION 1

1. INTRODUCTION

This document was construed in order to comply with the provisions of the **OCCUPATIONAL HEALTH AND SAFETY ACT NO 85 OF 1993, CONSTRUCTION REGULATIONS 2014 and COVID-19 Occupational Health and Safety Measures in Workplace 2020.**

Definitions of words are those described in the Act and the Construction Regulations of 2003.

This document formulates the specification of the O. R. Tambo District Municipality in terms of the above act and forms part of the constitution of the organisation.

This document forms part of the employment contract of all employees and is as such accepted in writing by each employee. It also forms part of the agreement between the O. R. Tambo District Municipality and all service providers.

No clause in this document shall be amended in any contract document construed by agents, designers or anyone else except so ordered or sanctioned by the O. R. Tambo District Municipality in writing.

SCHEDULE

1.1 Definitions

1. In these Policy any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context otherwise indicates—

“Agent” means any person who acts as a representative for a client in the managing the overall construction work.

“angle of repose” means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on a surface, rather than sliding or crumbling away;

“Batch plant” means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

“Client” means O. R. Tambo District Municipality;

“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;

“Construction work” means any work in connection with—

- (a) The erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) 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
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

“Construction vehicle” means a vehicle used for means of conveyance for transporting persons or material or both such persons and material, as the case may be, both on and off the construction site for the purposes of performing construction work;

“Contractor” mean an employer, as defined in section 1 of the Act, who performs construction work and includes principal contractors;

“Design” in relation to any structure includes drawings, calculations, design details and specifications;

“Designer” means any person who—

- (a) prepares a design;
- (b) checks and approves a design;
- (c) arranges for any person at work under his control (including an employee of his, where he is the employer) to prepare a design, as well as;
- (d) Architects and engineers contributing to, or having overall responsibility for the design;
- (e) Build services engineers designing details for fixed plant;
- (f) Surveyors specifying articles or drawing up specifications;
- (g) Contractors carrying out design work as part of a design and build project;
- (h) Temporary works engineer designing formwork and false work; and
- (i) Interior designers, shop-fitters and landscape architects.

“ergonomics” means the application of scientific information concerning humans to the design of objects, systems and the environment for human use in order to optimise human well-being and overall system performance;

“Excavation work” means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

“explosive powered tool” means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

“fall prevention equipment” means equipment used to prevent persons from falling from an elevated position, including personal equipment, body harness, body belts, lanyards, lifelines or physical equipment, guardrails, screens, barricades, anchorages or similar equipment;

“fall arrest equipment” means equipment used to arrest the person in a fall from an elevated position, including personal equipment, body harness, lanyards, deceleration devices, lifelines or similar equipment, but excludes body belts;

“fall protection plan” means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods to be applied in order to eliminate the risk;

“Hazard identification” means 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;

“Health and safety file” means a file, or other record in permanent form, containing the information required as contemplated in these regulations;

“Health and safety plan” means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified;

“Health and safety specification” means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons;

“Material hoist” means a hoist used to lower or raise material and equipment, and includes cantilevered platform hoists, mobile hoists, friction drive hoists, scaffold hoists, rack and pinion hoists and combination hoists;

“Medical certificate of fitness” means a certificate valid for one year issued by an occupational health practitioner, issued in terms of these regulations, whom shall be registered with the Health Professions Council of South Africa;

“Method statement” means a written document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment;

“Mobile plant” means machinery, appliances or other similar devices that is able to move independently, for the purpose of performing construction work on the construction site;

“National Building Regulations” means the National Building Regulations made under section 17(1) of the National Building Regulations and Building Standards Act, 1977 (Act No.103 of 1977), and published under Government Notice No. R.1081 of 10 June 1988, as amended;

“Person day” means one individual carrying out construction work on a construction site for one normal working shift;

“principal contractor” means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site;

“professional engineer or professional certificated engineer” means any person holding registration as either a Professional Engineer or Professional Certificated Engineer under the Engineering Profession Act, 2000 (Act No. 46 of 2000);

“Professional technologist” means any person holding registration as a Professional Technologist under the Engineering Profession Act, 2000 (Act No. 46 of 2000);

“Provincial director” means the provincial director as defined in regulation 1 of the General Administrative Regulations under the Act;

“risk assessment” means a programme to determine any risk associated with any hazard at a construction site , in order to identify the steps needed to be taken to remove, reduce or control such hazard;

“Roof apex height” means the dimensional height in metres measured from the lowest ground level abutting any part of a building to the highest point of the roof;

“SABS 085” means the South African Bureau of Standards' Code of Practice entitled “The Design, Erection, Use and Inspection of Access Scaffolding”;

“SABS 0400” means the South African Bureau of Standards, Code of Practice for the application of the National Building Regulations;

“SABS EN 1808” means the South African Bureau of Standards' Standard Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”;

“SABS 1903” means the South African Bureau of Standards' Standard Front-end Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”;

“Scaffold” means any temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

“shoring” means a structure such as a hydraulic, mechanical or timber/steel shoring system that supports the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation, and “shoring system” has a corresponding meaning;

“Structure” means—

C1.5: Occupational Health and Safety Specification

- (a) any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plants, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
- (b) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or
- (c) any fixed plant in respect of work which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk of a person falling two metres or more;

“Suspended platform” means a working platform suspended from supports by means of one or more separate ropes from each support;

“The Act” means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

“Tunnelling” means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral

**HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2003**

SECTION 2: DESIGNERS

1. All wording shall have the meaning as defined by the H&S Regulations 2003.
2. This specification is in terms of the H&S act 1993 and the regulations of 2003.
3. All work performed and procedures followed by designers shall be done according to the H&S regulations of 2003.
4. The client is aware of the fact that the appointment of a designer does not implicate that the designer becomes the agent of the client for the particular project. The appointment of an agent is done separately in writing and should be accepted by the designer as such.
5. The client is ultimately responsible for all safety issues regarding the project for which a designer is appointed and cannot contract out of his obligations in terms of the law.
6. The client shall not employ a designer should he have reasonable doubts that the designer is not able to execute work in a safe manner.
7. All designers shall have adequate insurance cover to indemnify the client for their acts and omissions in terms of professional conduct the H&S act in particular to indemnify the client against penalties imposed for acts or omissions. The client is aware of the fact that additional insurance over and above PI insurance is necessary to have himself indemnified by the designers for acts and omissions in terms of the H&S regulations. The professional indemnity insurance has a "negligent acts and omissions" wording only and therefore additional insurance is necessary to cover the client against penalties imposed in terms of the regulations.
8. Designers shall not accept work from the client if they are not capable of executing such work professionally and if such work cannot be executed in a safe manner, according to the provisions of the H&S regulations.
9. Designers shall execute all designs in terms of the relevant SABS and other acceptable codes and procedures and shall place great emphasis on safety issues including the maintenance procedures after inaugurations of such systems or projects.
10. Ergonomic parameters shall have high priority in all designs.

HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2003

SECTION 3: PRINCIPAL CONTRACTORS (P C)

1. All work by the P C shall be done in compliance with the provisions of the H&S regulations.
2. The Employer recognises the right of each employee to work safely in a healthy environment under decent human conditions. Each employee has the right to return home safely and healthy to his home and family after each day's work.
3. Work shall not be done at the expense of human safety or health.
4. Work shall be executed under humane conditions, especially with reference to hours and H&S issues in mind.
5. The P C shall appoint a fulltime H&S Manager should he have more than 50 employees on site.
6. The PC shall conduct monthly safety meetings on site. All foremen, gang leaders and other employees shall participate and all incidents with relation to unsafe practices shall be discussed. Minutes of such meetings shall be kept in the H&S file.
7. Foremen and gang leaders shall, under the supervision of the H&S manager, conduct meetings with all staff and people under their direct supervision on a frequent basis. Minutes of such meetings shall be kept in the H&S file.
8. New personnel (temporary or full time employees) shall attend safety induction courses under the supervision of the H&S manager.
9. The P C shall install and maintain a box in which proposals for improvement of H&S procedures could be placed. All such proposals shall be considered, recorded and placed in the H&S file.
10. An adequate first aid facility shall be placed maintained on site and shall be adequately indicated by means of signs. All personnel shall be made aware of its existence and only trained first aid assistants shall be authorized to treat injuries.
11. The P C shall see that work is only executed by people trained for the particular task.
12. All safety equipment shall be SABS approved and under no circumstance shall any safety equipment be non-certified homemade equipment. Specifications and order details shall be kept in the H&S file.
13. Workers and personnel shall be attending safety courses on a regular basis and all information regarding such training shall be kept in the H&S file.
14. All employees shall be trained in safe working procedures and shall be trained on safety consciousness in particular. Employees in position of leadership shall be trained through accredited training processes in H&S matters.
15. The contractor shall prepare and maintain a safety plan for the particular project and shall train his personnel to work according to such plan.
16. Personnel and workers will be made aware of any natural hazards existing on site. They will also be made aware of items defined by the designer in his risk assessment.
17. No horseplay between employees will be tolerated on site. Neither will aggressive or threatening behaviour by anybody be allowed.

18. Workers shall wear appropriate protective clothing for the applicable task which shall include special safety equipment like protective eyewear, gloves, boots, ear protection, etc. Workers shall be issued with these items and copy of such issuing shall be kept in the H&S file.
19. Workers shall not be allowed to wear loose clothes and footwear.
20. Workers shall have the opportunity and right to prescribed rest, eating and toilet breaks.
21. Workers on nightshift shall be protected against inclement weather and shall have access to adequate food and drinks.
22. In cases where work is executed in remote or in security restricted areas, the P C will make provision for food to be supplied to his employees.
23. Potable water shall be made available free of charge to all workers on site.
24. Adequate toilet and washing facilities shall be made available to workers.
25. In the event of chemicals being present or used on site, the P C will allow for adequate shower facilities on site. All chemicals shall be stored according to specification and shall be clearly identified and marked in prescribed containers.
26. Workers under instruction to execute inherently unsafe procedures shall report such incidences to the H&S manager, designer of client immediately.
27. Unauthorised or unlawful instructions from foremen, gang leaders or colleagues shall be reported by the H&S manager immediately.
28. The P C shall stop his contractors if they work unsafely.
29. All specialist work shall be executed by registered artisans only.
30. Workers shall not be required to lift equipment or material heavier than 25kg or carry a load of more than 50 kg for more than 10 metres.
31. Workers shall not be exposed to conditions of heat where the temperature is above 40° Celsius and the humidity more than 75%. Likewise will personnel not be exposed to temperatures lower than -5° Celsius? Should the designer and the P C decide that the work is urgent; workers will be issued with proper protective clothing.
32. All workers shall have access to a shaded eating and resting place on site.
33. Workers executing tasks in rivers, trenches and other natural or artificial water ways shall be made aware of the hazard of flash floods and special precautions shall be made by the P C to implement an effective flood warning system.
34. Workers executing tasks in manholes for sewer or stormwater systems, shall be made aware of the existence of hazardous gasses in closed areas and shall be issued with gas masks in any event, even after tests conducted by the H&S manager has proven that no gasses are existent. Only specialists shall work in gas filled chambers.
35. Personnel executing work during rainy weather or under other wet conditions shall be equipped with proper gumboots and proper rain suits.
36. No personnel will be allowed to work in water unless gumboots are worn. Should the water be deeper than 300mm watertight suits shall be worn.
37. All ladders shall be fixed against scaffolding or other permanent structures.
38. Welding on site shall only be done by trained personnel behind adequate eye protecting shields and all welders shall wear proper protective gear.
39. Personnel operating grinders, saws or any other hand tools of similar description shall be equipped with the necessary eyewear and ear protection.

40. All personnel working under potentially dusty conditions shall wear nose and mouth filters.
41. Workers operating rock drilling equipment shall wear ear, nose and eye protection.
42. All scaffolding will comply with the H&S regulations.
43. Blasting will be done by specialists under the regulations of the Explosives Act.
44. Workers shall wear protective clothing when exposed to chemicals like cement, lime, detergents, tar, fumes, etc. Should work be executed in the presence of such material, adequate protective clothing and equipment shall be issued after permission is granted by the H&S manager.
45. Workers will not be allowed to make open fires on any part of the site unless it is made in designated areas approved by the H&S manager.
46. Fuel storage will only be allowed on certified areas on site.
47. Workers and other personnel will be trained for fire procedures and will practise such fire drill on a regular basis.
48. Assembly areas for emergency evacuations will be indicated by adequate signage.
49. The P C will have an attendance register for the purposes of identifying people before, during and after potential hazardous situations.
50. All transport supplied by the P C shall be on road worthy vehicles only and all transport shall be conducted in terms of the transport act.
51. Drivers of vehicles shall be responsible for the roadworthiness of vehicles and will report any dysfunctional vehicles to the P C.
52. All drivers will be responsible to handle vehicles in such a way to comply with the transport act.
53. Passengers of vehicles shall report any unsafe conduct to the P C immediately. Such report shall be forwarded to the H&S manager and shall be investigated. Copy of such procedure shall be entered into the H&S file.
54. Only trained personnel shall be permitted and required to operate construction machinery. All such machinery shall be maintained in a safe working condition.
55. All vehicles operating on site shall have audible warning signals if driven backwards.
56. No vehicle shall be kept on site if it is leaking oil or other substances.
57. No vehicle or equipment shall be operated on site if it produces noise above 90 decibel measured within a distance of 10,0 m from the unit.
58. Equipment producing serious dusty conditions shall only be operated under the supervision of the P C and the H&S manager with the necessary protection to workers.
59. All excavations on site shall be adequately protected and not only indicated.
60. Exploratory excavation to reveal services shall be done in a specific way.

All areas to be explored shall first be inspected by the landowner or local authority.
Position of services identified shall then be verified by opening by hand, not by machine.
Particular care shall be taken not to damage these services.
Electrical services are inherently dangerous and shall be opened by skilled people only.
These excavations shall not be left open without supervision. If necessary the excavation shall be backfilled temporarily with approved material until the specified modifications to the services can be made.
61. Access to excavations shall only be by means of ladders or stairs with handrails.

62. All refuse, unsafe material, potential hazardous material and rubbish shall be placed in designated areas to be removed on a regular basis.
63. Rainwater shall be contained in trenches or pipes in such a way that it will not cause contamination of material in these refuse areas.
64. All electrical sources or cables or overhead power lines should be regarded as live at all times and all workers on site shall be made aware of its existence during H&S meetings and as many times as necessary.
65. Adequate signage shall be used on site to indicate
- Nonsmoking areas on site
 - Safety exits / Emergency exits from buildings under construction
 - Stairs (temporary and permanent works)
 - Toilets
 - Firefighting equipment
 - Workmen busy with equipment overhead
 - Fire assembly points
 - Fire escapes
 - Areas where members of the public are not allowed.
 - First aid room
66. All visitors to the site shall be granted permission to the site only upon application through a predetermined procedure and records of these visitors shall be kept in the H&S file. Visitors shall attend safety induction training before entering the site. Areas out of bounds to all visitors shall be indicated clearly by means of adequate signs.
67. Work performed in public servitudes like the construction of streets or roads shall be done according to the specifications of the local or national authority and adequate signage shall be implemented.
68. People complaining about their health or people displaying symptoms of illness or disease, shall be allowed to go to the first aid facility or to visit a doctor or a clinic. Permission shall not be withheld unreasonably. In remote areas the P C is required to have reasonable ways of transporting people to a doctor or clinic whether the person is ill or injured on site.
69. Personnel must be informed about the location of the nearest doctor or clinic for casualty purposes and the P C shall provide such transport for injured workers and injured members of the public (within the limits of the site) free of charge.
- 70 A principal contractor who intends to carry out any construction work shall—
- (a) before carrying out that work, notify the provincial director in writing of the construction work if it includes—
- (i) The demolition of a structure exceeding a height of 3 metres; or
 - (ii) The use of explosives to perform construction work; or
 - (iii) The dismantling of fixed plant at a height greater than 3m.
- (b) before carrying out that work, notify the provincial director in writing when the construction work—
- (i) Exceeds 30 days or will involve more than 300 person days of construction work; and
 - (ii) Includes excavation work deeper than 1m; or
 - (iii) Includes working at a height greater than 3 metres above ground or a landing.
- (2) The notification to the provincial director must be done on the form similar to Annexure A to this Policy.
- (3) A principal contractor shall ensure that a copy of the completed form is kept on site for inspection by an inspector, client, client's agent or employee.

O. R. TAMBO DISTRICT MUNICIPALITY

**HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2003**

SECTION 4: CLIENT

- (1) A client shall be responsible for the following in order to ensure compliance with the provisions of the Act:
 - (a) to prepare a documented health and safety specification for the construction work, and provide any principal contractor who is making a bid or appointed to perform construction work for the client with the same;
 - (b) To promptly provide the principal contractor and his or her agent with any information which might affect the health and safety of any person at work carrying out construction work;
 - (c) To appoint each principal contractor in writing for the project or part thereof on a construction site;
 - (d) To take reasonable steps to ensure that each principal contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed upon between the client and principal contractor, but at least once every month;
 - (e) to stop any contractor from executing construction work which is not in accordance with the principal contractor's health and safety plan for the site or which poses to be a threat to the health and safety of persons;
 - (f) to ensure that where changes are brought about, sufficient health and safety information and appropriate resources are made available to the principal contractor to execute the work safely;
 - (g) to ensure that every principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site; and
 - (h) To ensure that potential principal contractors submitting tenders, have made provision for the cost of health and safety measures during the construction process.
- (2) A client shall discuss and negotiate with the principal contractor the contents of the health and safety plan and thereafter finally approve the health and safety plan for implementation.
- (3) A client shall ensure that a copy of the principal contractor's health and safety plan is available on request to an employee, inspector or contractor.
- (4) (4) O. R. Tambo District Municipality shall not appoint a principal contractor to perform construction work, unless O. R. Tambo District Municipality is reasonably satisfied that the principal contractor that he or she intends to appoint has the necessary competencies and resources to carry out the work safely.
- (5) A client may appoint an agent in writing to act as his or her representative and where such an appointment is made, the responsibilities as are imposed by these regulations upon a client, shall as far as reasonably practicable apply to the person so appointed.
- (6) No client shall appoint any person as his agent, unless the client is reasonably satisfied that the person he or she intends to appoint has the necessary competencies and resources to perform the duties imposed on a client by these regulations.

ANNEXURE A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
Regulation 3 of the Construction Regulations, 2003

NOTIFICATION OF CONSTRUCTION WORK

- 1.(a) Name and postal address of principal contractor:

- (b) Name and tel. no of principal contractor's contact person:

2. Principal contractor's compensation registration number: _____
- 3.(a) Name and postal address of client:

- (b) Name and tel. no. of client's contact person or agent:

- 4.(a) Name and postal address of designer(s) for the project:

- (b) Name and tel. no. of designer(s) contact person:

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6.(1). _____
6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6.(2).

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:

9. Expected commencement date: _____
10. Expected completion date: _____
11. Estimated maximum number of persons on the construction site.

12. Planned number of contractors on the construction site accountable to principal contractor:

13. Name(s) of contractors already chosen.

Principal Contractor

Date

Client

Date

- **THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON SITE.**
- **ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.**

GUIDELINES FOR CONTRACT ADMINISTRATION



**O.R. TAMBO
DISTRICT MUNICIPALITY**

O.R. TAMBO DISTRICT MUNICIPALITY

**GUIDELINES FOR CONTRACT ADMINISTRATION
IN TERMS OF THE CONSTRUCTION REGULATIONS 2003
HEALTH & SAFETY ACT 1993**

SECTION 1 AND 2

1. PURPOSE OF THIS DOCUMENT

This document describes the procedures to be followed in the execution of Engineering Projects for O. R. Tambo District Municipality.

The role of all parties to the development project is described.

The document is in terms of the Construction Regulation 2003 of the Health and Safety Act 1993.

2. BACKGROUND

The Minister of Labour has on 18 July 2003 under section 43 of the Occupational Health and Safety Act 1993 (Act No. 85 of 1993) published new regulations in the Government Gazette 7721, Vol. 456. They have immediate effect and are applicable to the Construction Environment.

These regulations inter alia identify the different role players and their responsibilities, particularly the role of the client, the contractor and that of the designer.

The Construction Regulations endeavour to ensure that:

- i) Hazards or potential hazards to a healthy working environment are identified.
- ii) These hazards or potential hazards are removed or minimised.
- iii) Employers and Workers are made aware of the value of safe working procedures and train themselves to work safely in potential hazardous environments or under potentially unsafe conditions.

GUIDELINES FOR CONTRACT ADMINISTRATION
IN TERMS OF THE CONSTRUCTION REGULATIONS 2003
HEALTH & SAFETY ACT 1993
SECTION 3

3. THE CLIENT

In terms of the law the client is ultimately responsible for all acts and omissions as far as health and safety is concerned on site. It should be noted that the client will be held legally responsible for every trespass of the regulations, not the designer or the contractor. The law makes provision for fines to be levied and unless the client has been indemnified by the designer or the contractor, such fines will have to be paid by the client.

Clients cannot contract out of their statutory obligations except where the law allows for it. Therefore any liability imposed upon them for statutory non-compliance, cannot be passed on to designers (consultants) or contractors.

In particular the client's responsibilities are defined as follows:

- | | | |
|-----|---|----------------|
| .1 | To prepare a health and safety (H&S) specification for the work. This should cover the spectrum of activities handled by the client as part of his normal duties. | Clause 4(1)(a) |
| .2 | To provide a risk assessment to the principal contractor. | Clause 4(1)(b) |
| .3 | To appoint the principal contractor in writing. | Clause 4(1)(c) |
| .4 | To ensure that the H&S plan is implemented. | Clause 4(1)(d) |
| .5 | To stop any contractor executing work in an unsafe manner. | Clause 4(1)(e) |
| .6 | To provide additional H&S information to the contractor should changes be made to the work? | Clause 4(1)(f) |
| .7 | To ensure that the principal contractor is registered and in good standing with the workmen's compensation fund. | Clause 4(1)(h) |
| .8 | To make sure tenderers have made provision in their offers for H&S measures. | Clause 4(1)(h) |
| .9 | To discuss and approve the H&S plan with the principal contractor. | Clause 4(2) |
| .10 | To keep a copy of the H&S plan of the principal contractor. | Clause 4(3) |
| .11 | To <u>not</u> employ a contractor unless the client is reasonably satisfied that the principal contractor who is earmarked for an appointment has the necessary skills, competencies and resources to carry out the work safely. | Clause 4(4) |
| .12 | The client can appoint an agent to handle his duties. The client can obviously also delegate some of his duties but this does not make the person responsible for such particular responsibilities as agent.

The client should make sure whether such responsibilities are not already part of the designer in terms of the regulations clause 9(2). | Clause 4(5) |
| .13 | The client shall only appoint someone as his agent if he is reasonably satisfied that such person can handle such responsibilities. | Clause 4(6) |

GUIDELINES FOR CONTRACT ADMINISTRATION
 IN TERMS OF THE CONSTRUCTION REGULATIONS 2003
 HEALTH & SAFETY ACT 1993

SECTION 4

4. THE DESIGNER

The regulations do not use names like engineer, architect, etc. Instead the term designer has been introduced. The responsibilities of the designer are given in a sub-paragraph under the obligations of the Principal Contractor.

<p>4.1 The regulations has a comprehensive definition of the designer and this includes:</p> <ul style="list-style-type: none"> a) A person preparing a design. b) A person checking a design. c) A firm preparing a design. d) An architect or engineer contributing to or having responsibility for a design. e) A building services engineer designing details of fixed plant (scaffolding or cranes). f) A surveyor specifying articles or drawing up specification (Quantity Surveyor). g) A contractor in design & build contract. h) A contractor designing temporary work. i) A interior designer, shop fitter and landscape architect. <p>The regulation also talks of “an engineer designing a structure”. “Structure” is a wide concept and is given in paragraph 3.2.5.1(a) underneath.</p>	<p>Definitions “designer”</p> <p>Definitions “structure”</p>
<p>4.2 The designer does not automatically through an appointment become the agent of the client in terms of the regulations unless he is appointed in writing to that effect and he accepts such appointment in writing.</p>	<p>Clause 4(5)</p>
<p>4.3 The SAACE model agreement between the client and Engineer has a different meaning of the word “agent”.</p> <p>According to the model agreement of SAACE the Engineer acts as the “agent” of the client in a conventional contractual context. “Agent” in terms of the Health & Safety regulations has a totally different meaning.</p>	<p>Clause 4(5)</p>
<p>4.4 It can be derived from the regulations that the client can appoint a designer to perform certain tasks of the client on his behalf. This still does not mean that these designers become his agent in terms of clause 4(5).</p>	<p>Clause 4(5)</p>

<p>4.5 The regulations are fairly quiet regarding the functions and responsibilities of the designer except when designing of a structure. It is again assumed that the client will identify certain functions to be done by the designer on his behalf.</p>	
<p>4.5.1 "Structure" in terms of the regulations means:</p> <p>(a)</p> <ul style="list-style-type: none"> • any building • steel or reinforced concrete structure • railway line • railway siding • bridge • waterworks • reservoir • pipe or pipeline • cable • sewer • sewage works • fixed vessels • road • drainage works • earthworks • dam • wall • mast • tower • tower crane • batching plants • pylon • surface and underground tanks • earth retaining structure <p>or any structure designed to preserve or alter any natural feature and any other similar structure.</p> <p>(b) Any formwork, false work, scaffold or other structure designed or used to provide support or access during construction (structural engineering sector).</p> <p>(c) Fixed plant to prevent people from falling 2 meters or more.</p>	<p>Definitions</p>
<p>4.5.2 The designer is in fact regarded as a person delivering designs only and unless his role is defined by the client, his role is quite limited.</p>	<p>Clause 9(2)</p>
<p>4.5.3 The designer should inform the client and the principal contractor about anticipated dangers relating to the construction work. <u>This is in fact a Risk Assessment.</u></p>	<p>Clause 9(2)(b)</p>
<p>4.5.4 The designer (in the structural engineering context) shall further furnish to the contractor in writing:</p> <p>i) A geo-technical report.</p> <p>ii) The loading of the structure.</p> <p>iii) The method and sequence of the construction process.</p> <p>iv) He should exclude inherently dangerous methods of construction in his design.</p> <p>v) The maintenance of the structure shall be through safe procedures.</p> <p>vi) He should carry out inspections.</p> <p>vii) And stop the contractor from executing work dangerously.</p>	<p>Clause 9(2)</p>

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viii)	A final inspection is necessary to ensure safety of the structure.	Clause 10(c)
ix)	Great emphasis should be given to the ergonomic design of the structure.	
x)	The engineer should also give input in the design of temporary work e.g. scaffolding.	

**GUIDELINES FOR CONTRACT ADMINISTRATION
IN TERMS OF THE CONSTRUCTION REGULATIONS 2003
HEALTH & SAFETY ACT 1993**

SECTION 5

5. THE PRINCIPAL CONTRACTOR (P C) AND CONTRACTOR

The responsibilities of these parties are comprehensively stipulated in the regulations.

5.1	In general it can be seen that the responsibilities of the PC (Principal Contractor) towards his contractors is Mutatis Mutandis to the responsibilities of the Client towards the PC.	
5.2	The PC is responsible for the collecting of these contractors' safety plans and to hold them to it.	Clause 5(1) and (2)
i)	He should also stop his contractors should they work unsafely.	Clause 5(3)(d)
ii)	He should appoint safety officers should the size of the work warrant it.	Clause 6(6)
iii)	He should cause a risk assessment to be executed by a competent person.	Clause 7(1)
iv)	Visitors to his site should undergo induction pertaining to H&S issues.	Clause 7(8)
v)	He shall see to his employees induction and H&S training.	Clause 7(7)
vi)	The employees of the PC and his contractors shall wear visible proof of their induction training.	Clause 7(9)(a)
5.3	The regulations also covers the detail of:	
	• Fall protection	Clause 8
	• Structures (under this heading the responsibilities of the designer of a structure is found)	Clause 9
	• Formwork and support work	Clause 10
	• Excavation work	Clause 11
	• Demolition work	Clause 12
	• Tunnelling	Clause 13
	• Scaffolding	Clause 14
	• Suspended platforms	Clause 15
	• Boatswain's chairs	Clause 16
	• Material hoists	Clause 17
	• Batch plants	Clause 18
	• Explosive powered tools	Clause 19
	• Cranes	Clause 20
	• Construction vehicles and mobile plant	Clause 21
	• Electrical installation and machinery on construction sites	
	• Use and storage of flammable liquids on construction sites	Clause 22
	• Water environment	
	• Housekeeping on construction sites	Clause 23
	• Stacking and storage on construction sites	Clause 24
	• Fire precautions on construction sites	Clause 25
	• Construction welfare facilities	Clause 26
		Clause 27

GUIDELINES FOR CONTRACT ADMINISTRATION
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SECTION 6

6. APPOINTMENT OF THE DESIGNER

Clause 4(5)

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|-----|--|----------------|
| 6.1 | The client appoints the consultant or designer as agent only for the particular project and also for the duration of the project. | |
| 6.2 | It is further important to distinguish between "agent" in terms of the SAACE model agreement between client and engineer and "agent" in terms of the H&S regulations. | |
| 6.3 | The responsibilities and duties of a designer in the H&S context are <u>those that are dictated by law and/or those respectively given to him by the client</u> , except when he is a structural engineer and designs a "structure" in which case clause 9(2) applies automatically. | |
| 6.4 | The client should only add to the responsibilities of the designer those which is not automatically in his hand in terms of clause 9(1) of the regulations. | |
| 6.5 | The following duties are not regarded as normal work of the designer of a "structure" and will therefore require an additional appointment. | |
| .1 | To ensure the H&S plan of the PC is implemented on site. | Clause 4(1)(d) |
| .2 | To ensure that changes to the design are also incorporated in the H&S plan. | Clause 4(1)(e) |
| .3 | To ensure that the principal contractor is registered and in good standing with the workmens' compensation fund. | Clause 4(1)(f) |
| .4 | To see that the contractor registers the site as a construction site at the Department of Labour. | Clause 4(1)(g) |
| .5 | To discuss with the contractor the H&S plan and then recommend to the client the approval thereof. | Clause 4(2) |
| .6 | To keep a copy of the H&S plan of the contractor in his possession and see that a copy is forwarded to the client. | Clause 4(4) |
| .7 | Control the following on site: | |
| a) | To see that the principal contractor keeps the H&S file up to date and that it is given to the client upon completion of the contract. | Clause 5(7) |
| b) | To see that the principal contractor keeps a data base of all contractors involved with the project. | Clause 5(9) |
| c) | To see that the principal contractor appoints one or more construction supervisors. | |
| d) | To see that this person is dedicated to the particular project only. | Clause 6(4) |
| e) | To receive from the contractor his risk assessment and keep a copy of that for his and the clients records. | Clause 7(1) |

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SECTION 7

7. THE ROLE OF THE CLIENT

7.1	The client shall still prepare the H&S specification in terms of clause 4(1)(a) for its global activities. The H&S specification for the particular project is assigned to the designer.	Clause 4(1)(a)
7.2	The client shall approve of the H&S plan of the contractor, but on the recommendation of the consultant/ designer.	Clause 4(2)
7.3	The client employs the Principal Contractor.	Clause 4(1)(c)
7.4	The client can appoint an agent in which case all the responsibilities of the agent in the regulations are transferred to the agent.	Clause 4(5)
7.5	The client should only appoint an agent should he have made reasonably sure that the agent can handle the responsibility.	Clause 4(6)
7.6	The client shall not appoint a contractor if he is not reasonably sure that the contractor can execute such work in a safe manner.	Clause 4(4)

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SECTION 8

8. THE ROLE OF THE PRINCIPAL CONTRACTOR

The principal contractor should execute the following duties:

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|-----|--|--------------|
| .1 | Provide a health and safety plan. | 5(1) |
| .2 | See that his contractors comply with the regulations. | 5(2) |
| .3 | He should discuss the particular H&S plan. | 5(5) |
| .4 | He should have his H&S plan available. | 5(6) |
| .5 | He should have an H&S file available on site and hand it over to the client upon completion. | 5(7) |
| .6 | He should not employ contractors who are not capable. | 5(10) |
| .7 | He should have full time supervision on site. | 6(1) to 6(8) |
| .8 | He should produce a risk assessment of the work. | 7(1) |
| .9 | He should train his employees. | 7(4) |
| .10 | He should introduce induction training on site. | 7(7)/ 7(8) |
| .11 | All physical aspects of the regulations as in terms of the regulations. | |

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SECTION 9

9. THE PROCEDURE

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|-----|---|---------------------|
| 9.1 | The Client decides to execute work and appoints a designer to administer the work. | |
| 9.2 | The scope of works and the exact duties of the designer are identified and given to him in writing.

The designer should affect insurance by which the client is indemnified (by the designer) for acts and omissions of the designer. This type of insurance does not form part of the normal PI insurance provided by the designer.

The designer prepares a contract document and ensures that this document states clearly the following: | |
| .1 | A risk assessment of the project and the H&S specification of the client. | |
| .2 | All relevant information to enable the pricing of the contract. | 9(2)(a) |
| .3 | Items in the bill to enable the tenderer to price for the risk including insurance indemnifying the client. The document should state whether a full time safety officer is required on site. | 9(2)(b) |
| .4 | (i) Geotechnical information
(ii) Loading of the structure – in other words all relevant technical data taking the definition of “structure” into account.
(iii) The method and sequence of the process. This should identify the priorities of the client. | 9(2)(c)(i) to (iii) |
| .5 | Inherently dangerous procedures should be avoided in the design. | 9(2)(d) |
| .6 | The maintenance of the structure should be considered also so that this aspect would be safe and ergonomic too. | 9(2)(e) |
| 9.3 | The tenderers then respond by each giving a H&S plan based on the risk assessment of the designer. | |
| 9.4 | The client then chooses the contractor according to his procurement policy (taking into account his ability to do the work safely) and appoints him in writing via the designer. | |
| 9.5 | The chosen principal contractor then affects a detailed risk assessment and a risk management plan, based on the H&S specification. | |

C1.5: Occupational Health and Safety Specification

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| 9.7 | Once on site the principal contractor should register the site by means of the prescribed form and have it approved by the client/designer. |
| 9.8 | He should open and then maintain his H&S file through the duration of the contract. |
| 9.9 | He should then further adhere to the provisions of the H&S regulations. |
| 9.10 | He should hand over the H&S file (recommend to do that with the designer's as-built drawings). |
| 9.11 | The designer should stop the work if he has reason to believe that the contractor is executing work in an unsafe manner. |
| 9.12 | Likewise should the principal contractor stop the work of his contractor(s) should he have reason to believe that such contractor is not working safely. |

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SECTION 10

10. CONTRACT DOCUMENTATION

The contract documentation needs to emphasize the following points in order to comply with the Health and Safety Act 1993 and the Construction Regulations 2003.

A. In the Specification section

1. Health and Safety Specification

The Client shall issue the Designer with his Health and Safety specification and it shall be included as such in the document.

Should the Designer be of the opinion that variations and additions be made to the specification, due to the nature of the particular project, he shall forward the proposed variation or addition to the NDM who will authorize this in writing.

2. Risk Assessment

This can form part of the contract specifications.

It is necessary to identify to the contractor:

- i) The situation on site as it is with all the potential hazards and dangers involved.
- ii) The nature of the work and the situations that the average contractor would encounter during the execution of the work. The nature of the work and the expected risks should be described in particular as well as the method and the sequence of the work.
- iii) The basic safety precautions that he should take.
- iv) The Safety and Health specification of the client.
- v) To allow sufficient items in the bill of quantities for the tenderer to price for the specified H&S precautions.

3. Insurance

The contractor shall affect insurance indemnifying the client against penalties levied upon the client due to the acts or omissions of the contractor in failing to comply with the provisions of the H&S regulations 2003.

The contractor shall prove to the Engineer that such insurance has been affected and maintained during the construction.

B. The Tender Rules

The tender rules shall contain a clause requiring the contractor to submit a H&S plan based on the risk assessment given in the contract document. It should also state that the client is bound by law not to appoint a contractor

should he be reasonably sure that the contractor would not be able to execute the work safely should he be appointed.

The following example is recommended.

Compliance with the Regulations of the H&S Act 2003

Tenderers are required to study the published risk assessment and provide Annexure Y his Health and Safety Plan. Generic document will be disregarded. Such H&S plan should give details regarding the tenderers intention of dealing with the risks.

Failure to submit such H&S plan will result in disqualification of the tender.

Tenderers are informed that the client is bound by law not to accept a tender should he be reasonable sure that the tenderer will not be able to execute the work safely.

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SECTION 11

11. CONCLUSION

The Construction Regulations 2003 was long overdue in the South African Civil Engineering Construction Industry. Role players will now be forced to implement them and an awareness of safe working environments will be cultivated.

Clients might initially detect a contemptuous attitude particularly from contractors and even designers or consultants. This should not deter clients since acts and omissions from these parties will bring clients in confrontation with the law.

Contract cost will certainly escalate due to the additional specifications but this should be weighed against the value of human lives improved and saved.

The construction industry, particularly the Civil Engineering Sector, will have to accept and embrace these regulations and then seriously look at its productivity to curb the cost of the implementation process.

1.0 SCOPE

This part of the specification has the objective to assist principal contractors entering into contracts with The Employer that they comply with the Occupational Health and Safety (OH&S) Act, No 85 of 1993. Compliance with this document does not absolve the principal contractor from complying with minimum legal requirements, and the principal contractor remains responsible for the health and safety of his employees and those of his Mandataries. Principal and other contractors should therefore insist that this part of the specification form part of any contract that he may have with other contractors and/or suppliers.

This section covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that the principal contractors and other contractors shall comply with in order to reduce the risks associated with this contract that may lead to incidents causing injury and/or ill health.

2.0 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

2.1 Hazard Identification and Risk Assessment (Construction Regulation 7)

2.1.1 Risk Assessments

Paragraph 4 contains a generic list of risk assessment headings that have been identified by The Employer as possibly applicable to this contract. It is, by no means, exhaustive and is offered as assistance to contractors intending to bid.

2.1.2 Development of Risk Assessment

Every principal contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, cause a risk assessment to be performed by a competent person, appointed in writing, and the risk assessment shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 5(1).

The risk assessment shall include at least:

- the identification of the risks and hazards to which persons may be exposed
- the analysis and evaluation of the risks and hazards identified
- a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified.
- a monitoring plan and
- a review plan

Based on the risk assessment, the principal contractor shall develop set site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessment, together with the site-specific OH&S rules shall be submitted to The Employer before construction on site commences.

Despite the risk assessment listed in paragraph 4, the principal contractor shall conduct a baseline risk assessment and the aforesaid listed risk assessment shall be incorporated into the baseline risk assessment. The baseline assessment shall further include the standard working procedures and the applicable method statements based on the risk assessments.

All variations to the scope of work shall similarly be subjected to a risk assessment process.

2.1.3 Review of Risk Assessment

The principal contractor shall review the hazard identification, risk assessments and standard working procedures at each production planning and progress report meetings as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The principal contractor shall provide The Employer, other contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in paragraph 2.1.3.

2.2 Legal Requirements

A principal contractor shall, as minimum, comply with:

The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up to date copy of which shall be available on site at all times.

The Compensation or Occupational Injuries and Diseases Act (Act 130 of 1993), an up to date copy of which shall be available on site at all times.

Where work is being carried out on a "mine", the contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mine's Health and Safety Act and Regulations shall be available on site at all times.

2.3 Structure and Responsibilities

It is a requirement that the principal contractor, when he appoints contractors (Sub-contractors) in terms of Construction Regulations 5(3), 5(5), 5(10), and 5(12) includes in his agreement with such contractors the following:

- OH& S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory"
- OH&S Act (85 of 1993), Section 16(2) appointee/s as detailed in his / her/ their respective appointment forms.

2.2.3 Further (Specific) Supervision Responsibilities for OH & S

The contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a generic list of identified appointments and may be used to select the appropriate

appointments for this contract. The contractor shall note it is a generic list only and is intended for use as a guideline.

Ref. Section/ Regulation in OHS Act	
Batch Plant Supervisor	(Construction Regulation 6(1))
Construction Vehicles/ Mobile Plant/ Machinery Supervisor	(Construction Regulation 21)
Demolition Supervisor	(Construction Regulation 12)
Drivers/Operators of Construction Vehicles/ Plant	(Construction Regulation 21)
Electrical Installation and Appliances Inspector	(Construction Regulation 22)
Emergency/Security/Fire Control	(Construction Regulation 27)
Excavation Supervisor	(Construction Regulation 11)
Explosive powered Tool Supervisor	(Construction Regulation 19)
Fall Protection Supervisor	(Construction Regulation 8)
First Aider	(Construction Regulation 3)
Fire Equipment Inspector	(Construction Regulation 27)
Formwork & Support work Supervisor	(Construction Regulation 10)
Hazardous Chemical Substances Supervisor	(HCS Regulations)
Incident Investigator	(General Admin Regulation 29)
Ladder Inspector	(General Safety Regulation 13A)
Lifting Equipment Inspector	(Construction Regulation 20)
Material Hoist Inspector	(Construction Regulation 17)
OH&S Committee	(OH&S Section 19)
OH&S Officer	(Construction Regulation 6(6))
OH&S Representatives	(OHS Act Section 17)
Person Responsible for Machinery	(General Machinery Regulation 2)
Scaffolding Supervisor	(Construction Regulation 14)
Stacking & Storage Supervisor	(Construction Regulation 26)
Structures Supervisor	(Construction Regulation 9)
Suspended Platform Supervisor	(Construction Regulation 15)
Tunneling under Pressure Supervisor	(Construction Regulation 13)
Vessel under Pressure Supervisor	(Vessel under Pressure Regulations)
Working on/next to Water Supervisor	(Construction Regulation 24)
Welding Supervisor	(General Safety Regulation 9)

In addition, The Employer requires that a Traffic Safety Officer be appointed (see COLTO Section 1500). The above appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated and agreed with the appointees. Notice of appointments shall be submitted to The Employer. All changes shall also be communicated to the Employer.

The principal contractor or shall, furthermore, provide The Employer with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site.

Where necessary, or when instructed by an inspector of the Department of Labour, the principal contractor shall appoint a component safety officer.

2.3.3 Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where the principal contractor employs more than 20 persons (including the employees of other contractors (sub-contractors) he has to appoint one OH&S representatives for every 5 employees or part thereof. General Administrative Regulation 6 requires that the appointment or election and subsequent designation of the OH&S representatives be conducted in consultation with employee representatives or employees. (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation.

2.3.4 Duties and Functions of the OH&S representatives (Section 18 of the OH&S Act)

The principal contractor shall ensure that the designated OH&S representatives conduct continuous monitoring and regular inspections of their respective areas of responsibility using a checklist and report thereon to the principal contractor. OH&S representatives shall be included in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings.

2.3.5 Appointment: of OH&S Committee (Section 19 and 20 of the OH&S Act)

The principal contractor shall establish an OH&S committee, which shall meet as specified in the Regulations.

2.4 Administrative Controls and the Occupational Health & Safety File

2.4.1 The OH&S File (Construction Regulation 5(7))

As required by the Construction Regulation 5(7), the principal contractor and other contractors shall each keep an OH&S file on site. The following list is not exhaustive and shall only be used as a guide:

- Notification of construction work (Construction Regulation 3)
- Latest copy of OH&S Act (General Administrative Regulation 4)
- Proof of registration and good standing with COID Insurer (Construction Regulation 4(g))
- OH&S plan agreed with the client including the underpinning risk assessment/s and method statements (Construction Regulation 5(1))
- Copies of OH&S committee and other relevant minutes
- Designs/Drawings (Construction Regulation 5(8))
- A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9)
- Appointment/designation forms as per paragraphs 2.1.1 and 2.1.2
- Registered as follows:
 - Accident/incident register (Annexure 1 of the General Administrative Regulations)
 - OH&S representatives' inspection register
 - Asbestos demolition and stripping register
 - Batch plant inspections
 - Construction vehicles and mobile plant inspections by controller
 - Daily inspection of vehicles, plant and other equipment by the operator/driver/user
 - Demolition inspection register
 - Designer's inspection of structures record
 - Electrical installations, equipment and appliances including portable electrical tools
 - Excavations inspector
 - Explosive powered tool inspection, maintenance, issue and returns register (incl. Cartridges and nails)
 - Fall protection inspection register
 - First aid box contents
 - Fine equipment inspection and maintenance
 - Formwork and support work inspections
 - Hazardous chemical substances record
 - Ladder inspections
 - Lifting equipment register
 - Materials hoist inspection register
 - Machinery safety inspection register (incl. Machine guards, lock-outs etc.)
 - Scaffolding inspections
 - Stacking and storage inspection
 - Inspection of structures
 - Inspection of suspended platforms
 - Inspection of tunnelling operations
 - Inspection of vessels under pressure

- Welding equipment inspections
- Inspection of work conducted near water
- All other applicable records including traffic safety officer reports.

The Employer will conduct an audit on the OH&S file of the principal constructor from time-to time.

2.5 Notification of Construction Work (Construction Regulation 3)

The principal constructor shall, where the contract meets the requirements laid down in Construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy shall be kept on the OH&S file and a copy shall be forwarded to The Employer for record keeping purposes.

2.6 Training and Competence

The contents of all training required by the Act and Regulations shall be included in the principal contractor's OH&S plan. The principal contractor shall be responsible for ensuring that all relevant training is undertaken.

Only accredited service providers shall be used for OH&S training. The principal contractor shall ensure that his and other contractor's personnel appointed are competent and that all training required to do the 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 contract progresses and the work situation changes. Records of all training must be kept on the OH&D file for auditing purposes.

2.7 Consultations, Communication and Liaison

OH&S liaison between the client, the principal contractor, the other contractors, the designer and other concerned parties will be through the OH&S committee as contemplated in paragraph 2.3.5. In addition to the above, communication may be directly to the client or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their supervisions, OH&S representatives and the OH&S committee. The principal contractor shall be responsible for the dissemination of all relevant OH&S information to the other contractors e.g. design changes agreed with the client and the designer, instructions by the client and/or/his/her agent, exchange of information between contractors, the reporting of hazardous/dangerous conditions/situations etc. The principal contractor's most senior manager on site shall be required to attend all OH&S meetings.

2.8 Checking Reporting and Corrective Actions

2.8.1 Monthly Audit by Client (Construction Regulation 4(1) (d))

The Employer will conduct monthly audits to comply with Construction Regulation 4(1)(d) to ensure that the principal contractor has implemented and is maintaining the agreed and approved OH&S plan.

2.8.2 Other Audits and Inspections by The Employer

The Employer reserves the right to conduct other hoc audits and inspections as deemed necessary. This will include site safety walks.

2.8.3 Contractor's Audits and Inspections

The principal contractor is to conduct his own monthly internal audits to verify compliances with his own OH&S management system as well as this specification.

2.8.4 Inspections by OH&S Representatives and other Appointees

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle and machinery drivers, operators and users must conduct daily inspections before start-up.

2.8.5 Recording and Review of Inspection Results

All the results of the above mentioned inspections shall be in writing at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

2.9 Accidents and Incident Investigation (General Administrative Regulation 9)

The principal contractor shall be responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigations shall be entered into an accident/incident register listed in paragraph 2.4.1

The principal contractor shall be responsible for the investigation of all minor and non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

2.10 Reporting

The principal contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

3.0 OPERATIONAL CONTROL

3.1 Operational Procedures

Each construction activity shall be assessed by the principal contractor so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the principal contractor:

- to be conversant with Regulations 8 to 29 (inclusive)
- to comply with their provisions
- to include them in his OH&S plan where relevant

3.2 Emergency Procedure

Simultaneous with the identification of operational procedures (per paragraph 3.1 above), the principal contractor shall similarly identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in the principal contractor's OH&S plan.

3.3 Personal & Other Protective Equipment (Section 8/ 15/ 23 of the OH&S Act)

The contractor shall 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.

Personal protective equipment (PPE) 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 PPE is considered.

Where it is not possible to create an absolutely safe and healthy workplace the contractor shall 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 contractor maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use/wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear 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 but an alternative solution has to be found that may include relocating or discharging the employee.

The principal contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non-conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

3.4 Other Regulations

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 22: Electrical and Machinery on Construction Sites) the principal contractor shall be conversant with and shall comply with these regulations.

3.5 Public Health and Safety (Section 9 of the OH&S Act)

The principal contractor shall be responsible for ensuring that non-employees affected by the construction work are aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimize those dangers. This includes:

- *Non-employees entering the site for whatever reason*
- *The surrounding community*
- *Passers by to the site*

4.0 PROJECT/S SPECIFIC REQUIREMENTS

4.1 List of Risk Assessments

- *Clearing and Grubbing of the areas/site*
- *Site establishment including:*
 - *Offices*
 - *Secure/safe storage for materials and equipment*
 - *Ablutions*
 - *Sheltered eating area*
 - *Maintenance workshop*
 - *Vehicle access to the site*
- *Dealing with existing structures*
- *Location of existing services*
- *Installation and maintenance of temporary construction electrical supply, lightning and equipment*
- *Adjacent land uses/surrounding property exposures*
- *Boundary and access control/public liability exposures (NB: the employer is also responsible for the OH&S of the non-employees affected by his/her work activities)*
- *Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes and lightning etc.*
- *Exposure to noise*
- *Exposure to vibration*
- *Protection against dehydration and heat exhaustion*
- *Protection from wet and cold conditions*

- *Dealing with HIV/AIDS and other diseases*
- *Use of portable electrical equipment including*
 - Angle grinder
 - Electrical drilling machine
 - Still saw
- *Excavation including*
 - Ground/soil conditions
 - Trenching
 - Shoring
 - Drainage of trench
- *Welding including*
 - Arc welding
 - Gas welding
 - Flame cutting
 - Flame cutting
 - Use of LP gas torches and appliances
- *Loading and offloading of truck*
- *Aggregate/sand and other materials delivery*
- *Manual and mechanical handling*
- *Lifting and powering operators*
- *Driving and operation of construction vehicles and mobile plant including.*
 - Trenching machine
- Use and storage of flammable liquids and other hazardous substances
- Layering and bedding
- Installation of pipes in pipelines
- Backfilling trenches
- Protection against flooding
- Gabion work
- Use of explosive
- Protection form overhead power lines
- As discovered by the principal contractor's hazard identification exercise
- As discovered from any inspection and audits conducted by the client or by the principal contractor or any other contractor on site
- As discovered from any accident/incident investigation

FORM C1.6 SUPPLY CHAIN MANAGEMENT POLICY

Please refer to O.R. Tambo District Municipality's Procurement Policy.

C2 PRICING DATA

C2.1 Pricing Instructions

C2.2 Bill of Quantities

FORM C2.1 PRICING INSTRUCTIONS

1. The Tender Data, the Scope of Work and the Drawings are to be read in conjunction with the Schedule of Quantities.
2.
 - a. The Schedule comprises items covering the Consortium's profit and costs of general liabilities and of the construction of temporary and permanent Works.
 - b. Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Schedule, his attention is drawn to the fact that the tenderer has the right, under various circumstances, to payment for additional works carried out and that the Client is obliged to base his assessment of the payment to be paid for such additional work on the rates inserted in the Schedule by the tenderer.
 - c. Clause 8 of each Standardized Specification and the measurement and payment clause of each Particular Specification, read together with the relevant clause of the Project Specification, set out what ancillary or associated activities are included in the rate for the operations specified.
3. Descriptions in the Schedule of Quantities are abbreviated. The schedule has been drawn up generally in accordance with the latest issue of "Civil Engineering Quantities". Should any requirement of the measurement and payment clause of the applicable Standardized Specification, or the Project Specification, or the Particular Specification(s) conflict with the terms of the Schedule or, when relevant "Civil Engineering Quantities", the requirement of the Standardized, Project or Particular Specification, as applicable, shall prevail.
4. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.
5. The prices and rates to be inserted in the Schedule of Quantities are to be the full inclusive prices to the Employer for the work described under the several items. The prices and rates shall be exclusive of Value Added Tax. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based.
6. A price or rate is to be entered, in **BLACK INK**, against each item in the Schedule of Quantities.
7. In the event of the Tenderer failing to price any item it will be held that the Tenderer has made adequate allowance under other items for all labour, material and costs required for the execution, not only of the quantum of work covered by the unpriced item but also for any increase in the said quantum which may have to be undertaken during the course of the Contract.

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

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

9 The quantities set out in the schedule of quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the schedule of quantities, will be used to determine payments to the contractor.

10 For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit : The unit of measurement for each item of work as defined in the Standardized, Projector Particular Specifications

Quantity : The number of units of work for each item

Rate : The payment per unit of work at which the Bidder bids to do the work Amount:

The quantity of an item multiplied by the bid rate of the (same) item

Sum : An amount bid for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

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

- mm = millimetre
- m = metre
- km = kilometre
- km-pass = kilometre-pass
- m² = square metre
- m²-pass = square metre-pass
- ha = hectare
- m³ = cubic metre
- m³-km = cubic metre-kilometre
- kW = kilowatt
- kN = kilonewton
- kg = kilogram
- t = ton (1 000 kg)
- % = per cent
- MN = mega Newton

FORM C2.2 BILL OF QUANTITIES

SUMMARY OF SCHEDULE OF QUANTITIES		
DESCRIPTION		AMOUNT
Section 1	PRELIMINARY & GENERAL	
Section 2	NYANDENI- EARTHWORKS: WATER RETICULATION PIPE TRENCHES	
Section 3	NYANDENI- PIPEWORK RETICULATION	
Section 4	NYANDENI- EARTHWORKS: RISING MAIN PIPE TRENCHES	
Section 5	NYANDENI-RISING MAIN-PIPEWOKS	
Section 6	LUQOLWENI-EARTHWORKS: WATER RETICULATION PIPE TRENCHES	
Section 7	LUQOLWENI- PIPEWORK RETICULATION	
Section 8	LUQOLWENI-RISING MAIN-PIPEWOKS	
Section 9	LUQOLWENI-EARTHWORKS: RISING MAIN PIPE TRENCHES TO ELEVATED STEEL TANK	
Section 10	75 Kℓ PREFABRICATED STEEL RESERVOIR	
Section 11	GENERATOR ROOM (2 NO REQUIRED)	
Section 12	NEW BOREHOLE NO- EC-T34-0672 TO REINFOCED CONCRETE RESERVOIR	
Section 13	EXISTING BOREHOLE NO - EC-T34-267 TO ELEVATED STEEL TANK	
Section 14	NYANDENI ROADWRKS TO PUMP STATIONS	
Section 15	70KL ELEVATED STEEL TANK - LUQOLWENI, THUKELA AND NYANDENI	
TOTAL OF PRICED ITEMS		
Allow 10% contingencies to be expended as directed by the Engineer and to be deducted in whole or part if not required		
SUBTOTAL		
Add 15% for Value Added Tax		
INDERECT COST		

SIGNED BY/ON BEHALF OF TENDERER

NAME

SIGNATURE

DATE

COMPANY STAMP

C3 SCOPE OF WORKS

All definitions, interpretations and general provisions for the General Conditions of Contract for Construction Work, Third Edition (2015) are applicable.

C 3.1 DESCRIPTIONS OF WORKS

C3.1.1 Client's Objective

The Client's objective is to supply potable water to Nyandeni, Luqolweni and Thukela villages in Qumbu Ward 19. The contractor shall use the reasonable resources. These resources include local labour, sub-contractors, and plant hire. The specification of the material should be specified by the engineer.

It is a specific goal of this project that the labour component where possible be maximised where it is economically feasible, and that the use of this labour goes hand in hand with on the job training of the labour force. The project is thus process and product orientated, and it is expected that the contractor will pursue these goals in the execution of the project.

C3.1.2 Overview of the Works

The Works entails the construction of Nyandeni, Luqolweni and Thukela villages Water Supply Scheme: Reticulation of approximately 11.4 km ranging from 50mmØ to 110 mm Ø, 50mmØ HDPE pipe with length of 1.775 km long rising main from borehole to 75 kl prefabricated steel reservoirs, 50mmØ HDPE pipe with length of 1.067 km rising main from borehole to 70 kl steel elevated tank in ward 19 (Nyandeni, Luqolweni and Thukela villages) of the Mhlontlo Local Municipality within the jurisdiction of the O.R. Tambo District Municipality. This includes the construction of the water reticulation networks, pressure pipeline and associated fittings and communal 50 stand pipes.

The sequence of the main items of work to be carried out as follows:

- (i) Setting out
- (ii) Clear trees and bushes
- (iii) Removal of topsoil
- (iv) Trenching
- (v) Bedding and pipe laying
- (vi) Backfilling
- (vii) Connections
- (viii) Shaping and top soiling
- (ix) Disposal of spoil material
- (x) Testing and commissioning
- (xi) Maintenance of all Environmental requirements;
- (xii) Cleaning of site on completion.

C3.1.3 Extent of the Works

The work to be carried out by the Tenderer under this Contract comprises mainly of the following:

ITEM	TASKS
Civil Works	
<ul style="list-style-type: none"> • Water Mains 	<ul style="list-style-type: none"> • Excavation of pipeline trenches in all types of materials; • Reticulation network; Supply, bed, lay, join and pressure testing in all pipe sizes ranging from 50 mmØ – 110 mmØ diameter pipes of approximately 11.4 Km; • Installation of pipeline markers; • Installation of valves with associated fittings and manhole chambers; • Fencing around elevated steel tank, reinforced concrete reservoir and pumpstations.
<ul style="list-style-type: none"> • Water points 	<ul style="list-style-type: none"> • Supply and construct 50 No. Communal standpipe(s) complete

C3.1.4 Construction program

It is specifically brought to the notice of the Contractor that time is critical on this project, and the construction period will be a major factor in the award of the tender.

C3.1.5 Change in works

The ORTDM may, from time to time by order in writing without in any way vitiating the Contract or giving to the Contractor any claim for additional payment, require the Contractor to proceed with the execution of the works in such order as in his opinion may be necessary, and may alter the order of or suspend any part of the Works at such time and times as he may deem desirable and the Contractor shall not, after receiving such written order, proceed with work ordered to be suspended until he shall receive a written order to do so from the ORTDM. Where the work must of necessity be carried out in conjunction with work of other Contractors, or with that of the Employer, it shall be coordinated and arranged in such a manner as to interfere as little as possible with the progress of such other work so as to offer every reasonable facility to other Contractors or to employees of the Employer.

C3.1.6 Temporary Works

The Contractor will be responsible for all Temporary works necessary to undertake this project. The areas where temporary works are anticipated but not limited to are benching along the pipeline route and stream diversions. All areas where temporary works are undertaken are to be rehabilitated to their natural state on completion of the project.

C3.2 ENGINEERING**C3.2.1 DESIGN SERVICES**

Works designed by, per design stage:

Concept, feasibility and overall process Engineer Basic engineering and detail layouts to tender stage Engineer Final design to approved for construction stage

Preparation of as-built drawings (Engineer)

Contractor and Engineer

- (a) The Engineer is responsible for the design of the permanent Works as reflected in the Contract Documents unless otherwise stated.
- (b) The Contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works.
- (c) The Contractor shall supply all details necessary to assist the Engineer in the compilation of the as-built drawings

C3.2.2 EMPLOYER'S DESIGN

Not applicable

C3.2.3 DESIGN BRIEF

Not applicable

C3.2.4 DRAWINGS

Drawings for the project are listed in Annexure C3.6.5. The drawings issued to Tenderers as part of the Tender Document must be regarded as provisional and preliminary for the Tenderer's benefit to generally assess the scope of the work.

The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works, and no dimension shall be scaled from the Drawings, unless required by the Engineer. The Engineer will, on the request of the Contractor and in accordance with the provisions of the Conditions of Contract, provide such dimensions as may have been omitted from the Drawings.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the Contract. The position of pipe bends and all other underground infrastructure shall be given by either coordinates or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis. All information in possession of the Contractor, required by the Engineer and/or the Engineer's Representative to complete the as-built/record drawings must be submitted to the Engineer's Representative before a Certificate of Completion will be issued.

Where the Contractor is to supply the design of temporary Works he shall supply the consulting engineer for this project with full working drawings supported by a professional engineer's design certificate.

The Drawings prepared by the Engineer for the Permanent Works of this Contract are listed below and contained in Annexure B or C3.6.5. The Engineer reserves the right to issue amended and/or additional drawings during the Contract.

C3.3 PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT PROCEDURES

C3.3.1.1 REQUIREMENTS

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

C3.3.1.2 RESOURCE STANDARD PERTAINING TO TARGETED PROCUREMENT

Preferential procurement will be applied as per O. R. Tambo District Municipality's preference policy.

C3.3.2 SUB-CONTRACTING

Bidders are required to Sub-Contract a minimum of **10,0% of** the contract to previously disadvantaged companies, within the area of jurisdiction of the O. R. Tambo District Municipality.

C3.3.2.1 Tenderers must comply with the requirement to subcontract a portion of these works to either of the following enterprises:

- (i) an EME or QSE which is at least 51% owned by black people;
- (ii) an EME or QSE which is at least 51% owned by black people who are youth;
- (iii) an EME or QSE which is at least 51% owned by black people who are women;
- (iv) an EME or QSE which is at least 51% owned by black people with disabilities;
- (v) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- (vi) a cooperative which is at least 51% owned by black people;
- (vii) an EME or QSE which is at least 51% owned by black people who are military veterans.

C3.3.2.2 CPG APPLICABILITY

The Contract Participation Goals (CPG) target is applicable to all contracts to be adjudicated through the O. R. Tambo District Municipality procurement process and shall be achieved through the following

mechanisms:-

- Main Service Provider may propose a suitable targeted enterprise or CPG partner/s but O. R. Tambo District Municipality reserves the right to provide or arrange a targeted enterprise or CPG partner/s to work with the successful company.
- The CPG shall be at least **10% (minimum)** of the total contract value excluding VAT.
- In cases where CPG works has been already identified, the successful tenderer will be allocated a CPG partner/s as deemed necessary by the Engineer.

Professional Service Providers						
Type Of Enterprise		Annual Turnover	Black Ownership	Tax Clearance Certificate	Minimum Full Time Technical Employees	CPG Target
Targeted Enterprise (TE)	Qualifying Small Enterprise	R5 m ≤ TE ≤ R15 m	> 50%	Required	>6	10% Min.
	Emerging Micro Enterprise	TE < R5 m	> 50%	Required	>3	

For each monthly invoice submitted by the Service Provider, the Targeted Enterprise(s) hours and costs per function must be clearly articulated to enable the CPG targets to be easily and regularly monitored.

The Service Provider must withhold 10% retention of the Targeted Enterprise(s) fees until the acceptance of the project.

The Service Provider must pay the amount due to the Targeted Enterprise(s) within 3 days of receiving payment from the Employer.

C3.3.2.3 The Scope of Works to be carried out by the SUBCONTRACTOR under this Contract will be detailed on award of the contract.

C3.3.2.4 A formal tender process will be followed to appoint the Subcontractor which will be facilitated by the Employer, Employer’s Agent and Main Contractor.

C3.4 CONSTRUCTION

C3.4.1 – SPECIFICATION DATA

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C3.2 – SPECIFICATION DATA

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PROJECT SPECIFICATION

PS1 PRESEDEENCE FOR PROJECT SPECIFICATION

The documents forming the contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- i. Form of offer and Agreement
- ii. Contract Agreement
- iii. Scope of Works
- iv. Drawings
- v. Bill of Quantities
- vi. SANS 1200 Specification

In the event of any discrepancy between the Scope of Works and a part or parts of the SANS 1200 Standard specifications, the Bill of Quantities or the drawings, the contractor should notify the Engineer in the first instance BEFORE taking any action in accordance with the above sequence. The engineer will confirm the correct interpretation and issue any necessary clarification or instruction.

PS2 PROGRAMME**PS2-1 Submitted programme**

The Contractor's programme shall be in a bar chart form.

In addition to the requirements of Sub-Clause 5.6.2 of the General Conditions of Contract, the Contractors' programme shall show:

- a) the various activities, related to a time scale, for each element of the Works, including those of Nominated Subcontractors, in sufficient detail to be able to assess construction progress,
- b) critical path activities and their dependencies,
- c) key dates in respect of work to be carried out by others, and
- d) key dates in respect of information to be provided by the Engineer and/or others.

In addition to the requirements of Sub-Clause 5.6.1 of the General Conditions of Contract, the Contractor shall submit with his programme, a copy of any network diagram used in producing the programme. If any change to the critical path occurs, the Contractor shall as soon as practicable notify the Engineer in writing.

The Contractor's programme will not be accepted as the basis for claims for additional compensation without due reference to all relevant associated factors.

PS2-2 General allowances

When drawing up his programme, the Contractor shall, take into consideration and make allowance for, inter alia:

- a) expected weather conditions and their effects,
- b) known physical conditions or artificial obstructions, and
- c) the design, testing and approval of the concrete mixes.

PS 2- 3 Review of progress

The Contractor shall review his progress each month and should progress lag behind the latest accepted programme, by more than 2 weeks, he shall submit a revised programme and method statement of how he proposes to make up the lost time. If, in the opinion of the Engineer, such revised programme will not make up the lost time, the Engineer shall have the right to request the Contractor to reorganise his work in a manner which will ensure an acceptable programme.

Claims for additional payment to meet any costs incurred due to such reorganisation will not be accepted.

PS2 - 4 Penalties

The penalty, as stated in the Document for late completion of the Works, will be applied as specified in Clause 5.13 of the General Conditions of Contract.

PS3 SITE FACILITIES REQUIRED

PS3-1 Facilities for the Engineer

The Contractor shall provide for the use of the Engineer, maintain and service, as applicable, the facilities as specified in SANS 1200 AB and PSAB.

PS4 FEATURES REQUIRING SPECIAL ATTENTION

P S 4 – 1 Health and safety

PS 4 – 1. 1 Health and safety plan

Without limiting his obligations and liabilities in terms of the Construction Regulations, 2003 of the OHS Act, the Contractor, in his health and safety plan to be submitted in terms of Clause 4.3.1 of the Special Conditions of Contract, shall inter alia deal with the safety provisions he will set up in respect of the aspects specified below, as well as the Amatole District Municipality's Occupational Health and Safety Specifications set out in this Document.

A copy of the approved health and safety plan shall be kept on site and made available upon request.

P S 4– 1 . 2 Medical facilities and safety equipment

See PSA4-2.

P S 4 -1. 3 Safety of general public

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

Open excavations and other hazardous conditions on site shall be barricaded and precautions shall be taken to protect the public from the same in terms of the OHS Act (see Clause 8.1 of the General Conditions of Contract and Subclauses 5.1.1.1 of SANS 1200 D (5.1.1.1 of SANS 1200 DA).

As the works are in a residential area the Contractor shall take special precautions to prevent public access to any danger areas on the Works, e.g. by temporary barricades, notices and/or fencing.

The Contractor shall direct, control, facilitate and safeguard all pedestrian traffic during construction of the Works, provide all notices, and arrange for watching and lighting in accordance with the requirements of the relevant authorities.

P S 4 -1. 4 Excavations

Without limiting his responsibility for the safety of his workers in any excavation, the Contractor shall ensure the safety of his workers in trenches and excavations deeper than 1,0 m. in terms of the provisions of the OHS Act. The Contractor may choose to batter excavations to a safe slope if sufficient space is available, or adequately shore the excavations.

PS 4-1. 5 Blasting and use of explosives

In addition to Subclauses 5.1.1.3 and PSD5-4, the Contractor shall take adequate precautions to prevent fly rock.

PS 4-1.6 Power lines and cables

All power lines and cables shall be treated as live until proven otherwise. Care shall be exercised and all necessary precautions taken while working under power lines or near cables with construction plant and when carrying or working on ladders in the vicinity of power lines.

PS 4-2 Dispute resolution

The Contractor shall at all times apply the terms and conditions of the subcontract fairly and justly, taking cognisance of the level of sophistication and experience of the particular subcontractor concerned, as well as the level of subcontract applicable.

The Contractor shall closely supervise all small subcontractors and wherever feasible, shall give reasonable warning to the subcontractor when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Contractor shall, whenever feasible, give reasonable opportunity to the subcontractor to himself make good any such contravention or to avoid such contravention, and shall render all reasonable assistance to the subcontractor in this regard.

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

If any dispute should arise between the Contractor and a small subcontractor, such dispute shall be resolved in accordance with the provisions of the subcontract.

PS 4-3 Liaison between contractors

Arising out of his duty in terms of Sub-Clause 4.8.1 of the General Conditions of Contract the Contractor shall liaise with the parties listed in 4.8.1.2 and 4.8.1.3 of that Sub-Clause and shall attend such meetings as required by the Engineer.

PS 4-4 Lighting

If the natural light is inadequate for the type of work to be undertaken, the Contractor shall, at his own expense, provide adequate lighting.

PS 4-5 Security

The safety of the Contractor's staff is principally his own responsibility and he must take such action as he deems appropriate in any situation where it becomes unsafe for his staff to operate.

The use of security guards under "normal" conditions, i.e. night watchmen to prevent theft, etc., is recommended. Payment for any such security measures will not be separate, but considered to be included in the tendered rates.

PS 5 ATTENDANCE AT SITE MEETINGS

The Contractor will be required to attend site meetings as and when these are required by the Engineer. The objectives of such meetings will be to review progress and ensure compliance with the programme, discuss and where possible solve any problems that may arise, and generally to liaise with all parties concerned with the Works.

The cost of attending such meetings shall be deemed to be included in the rates. Instructions given by the Engineer or agreement reached at such meetings and confirmed in the minutes shall be considered as a "written instruction by the Engineer" as referred to in the General Conditions of Contract.

Formal site meetings will be held once per month. Technical meetings will be held as required during the course of the contract.

PS 6 EXISTING SERVICES AND BUILDINGS

Although the plans may show the approximate position of existing services and buildings, neither the Employer nor the Engineer will accept the responsibility for the accuracy thereof.

Where the Contractor anticipates that, it will be impossible for him to carry out the work without causing damage to existing services, Works or buildings he shall forward a proposal on the method of construction for approval by the Engineer.

Where any existing services are crossed or temporarily removed, the Contractor shall be responsible for the repair and/or reinstatement of the crossings to the satisfaction of the Engineer.

Any damage done to existing Works or buildings shall be immediately notified to the owners concerned and to the Engineer.

Unless it is established by the Engineer that the Contractor exercised reasonable care and damage was unavoidable, the Contractor shall be held responsible for the damage to any existing Works or buildings and for the costs of repair, including any claims which may arise as a result thereof.

PS 7 PEGS, BEACONS AND ENGINEER'S MARKS

No survey mark, peg or beacon shall be disturbed without the Engineer's consent. The cost of replacing any survey mark, peg or beacon disturbed or damaged during construction shall be borne by the Contractor. The Engineer shall be advised immediately when boundary pegs are found to be missing. If this is not done, the Contractor will be liable for the replacement thereof and shall bear the cost.

PS 8 PERMITS

The Contractor shall be responsible for obtaining all necessary permits to transport materials to the area.

PS 9 FACILITIES TO OTHER CONTRACTORS

The Contractor must make allowance for the presence of other Contractors engaged on other Contracts on the Site, which may involve, inter alia, the adaptation of his programme to fit in with work to be done by the other Contractor, as well as assuring other Contractors access to their sites along prescribed routes which may fall within the site of this Contract. The Contractor will be advised at tender stage of any other Contractors who will be engaged on other Works during the course of the Contract.

PS 10 ACCESS TO PROPERTIES

The Contractor shall organise the work in such a manner as to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work included in this Contract.

The Contractor may, with the approval of the Engineer, make arrangements with the occupiers of the affected erven and properties to close off a portion of a street, road, footpath or entrance temporarily, provided the Contractor duly notifies the occupiers of the intended closure and its probable duration and shall, as punctually as possible, re-open the route at the prescribed time.

Where possible, the road shall be made safe and re-opened to traffic overnight. Any such closure shall be made by arrangement between the Contractor and the occupiers and shall not absolve the Contractor from his obligations under the contract to provide access at all times. Barricades, traffic signs and drums shall be provided by the Contractor to suit the specific conditions.

PS 11 WORKING IN SERVITUDES AND PRIVATE PROPERTIES

Reference must also be made to the requirements of the Environmental Management Plan in this regard.

PS 11.1 Courtesy and Minimizing Nuisance to Residents

The Contractor shall take all possible precautions to avoid any nuisance or inconvenience, arising from his carrying out of the Works to owners, tenants or occupiers of properties and adjacent properties and to the public generally, and shall keep the Works and adjacent areas in a clean, safe and satisfactory condition. This shall include existing driveways used by the Contractor for access to Works on private property.

All dealings with the public shall be dealt with in a courteous and understanding manner.

PS11.2 Clearing Up and Reinstatement of Work Proceeds

As work proceeds, the Contractor shall carefully and systematically restore the ground, fencing, gates, structures or anything else which may have been disturbed during the construction, and shall remove all rubbish, tools, construction plant, surplus material and temporary Works of every kind, and leave the whole of the site clean and tidy to the entire satisfaction of the Engineer. The Employer shall have the right to withhold payment until acceptance by the Engineer has been received.

PS 11.3 Spoil Material

No indiscriminate spoiling of material will be allowed. All surplus or unsuitable material shall be spoiled in accordance with PS 5.5.

PS 11.4 Plants and Trees

Special precautions shall be taken to preserve plants and trees growing near or inside the working areas. No trees or plants may be removed without written permission from the Engineer. The coastal forest in the area of significant environmental importance and extreme care must be exercised when working in these areas. A method statement for working in these areas is required from the Contractor and shall be approved by the Engineer prior to work being permitted to commence.

PS 11.5 Open Trenches

Unless otherwise permitted in writing by the Engineer, not more than 250m of trench in any one area of operations, shall be opened in advance of pipelaying operations. No trench may be left open over Public Holidays including Easter and the Christmas shut-down period. The cost of backfilling any trenches before these shut-down periods and the re-opening thereof after the shut-down period shall be borne by the Contractor. All open trenches shall be protected and marked by means of barrier taping at all times.

PS 11.6 Working Width

The Contractor shall keep all plant, labour and materials within a minimum working width along the construction routes, so as to minimise the amount of damage and reinstatement to private properties.

PS 11.7 Access to the Site through Private Property

The Contractor shall assess which properties need to be used as a means of access to the Works or sections of the Works and of lands through which he wishes to construct temporary roadways for the same purpose. Approval shall be obtained from the Engineer, who will liaise and arrange for the consent of public persons and other interested parties, before this work commences. Payment will be made under relevant items of the Bill of Quantities for dealing with access to the Works. On completion of the Works the temporary access roadways shall be reinstated to the same standard and condition they were in before commencement of the Contract and to the satisfaction of the Engineer.

PS 11.8 Concrete

There shall be no mixing of concrete on private properties. All mixing shall take place at a point approved by the Engineer and then be transported by wheelbarrow, dumper or similar approved method via the designated access routes to the area where it is to be used.

PS 11.9 Supervision and Control of Workmen

All workmen working in private property shall be under full-time supervision of a responsible person approved by the Engineer. The Contractor shall supervise and exercise proper control over all his employees engaged on the Works to ensure that relevant insurances involving damage to public and private property remain valid.

PS 12 CERTIFICATES OF PAYMENT

The statement to be submitted by the Contractor shall be prepared in accordance with the standard payment certificate prescribed by the Engineer and shall consist of at least one full set of A4-sized paper copies. The certificates shall be submitted to the Engineer for approval by the 15th of each month. All costs resulting from the preparation and submission of the statements shall be borne by the Contractor.

PS 13 DRAWINGS

A Certificate of Completion will only be issued after any information in the possession of the Contractor

which is necessary for the Engineer to complete his "as built" drawings have been submitted to the Engineer.

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Engineer. The Engineer shall supply any figured dimensions which may have been omitted from the drawings.

PS 14 CONTRACTOR'S SITE AGENT

- a) Within 14 days of the award of Contract the Contractor shall advise the Employer in writing of the name of the responsible person in charge of this Contract.
- b) In amplification of Clause 4.12 of General Conditions of Contract:

It shall be noted that the Contractor shall be required to strictly observe his obligations regarding adequate full-time superintendence of the Works, with particular reference to accuracy of setting out, excavations, correct steel fixing, properly constructed formwork, positioning of foundation bolts and/or bolt pockets, placing of concrete, etc. in order to achieve the high standard of workmanship required of him.

Adequate facilities for superintendence of his work shall be provided by the Contractor and the Engineers engineering staff must under no circumstances be expected to act in this capacity on his behalf.

PORTION 2 : VARIATIONS TO SPECIFICATIONS LISTED IN THE LIST OF APPLICABLE SPECIFICATIONS AND ADDITIONAL CLAUSES

PSA **GENERAL.** (SANS 1200 A)

PSA2 **Interpretations**

PSA2 -1 **Applicable edition of standards.** (Subclause 2.2)

Add at the beginning of Subclause 2.2:

"Unless a specific edition is specified (see the List of Applicable Specifications)

PSA2-2 **Abbreviations** (Subclause 2.4)

Add to Subclause 2.4(b):

“MAMDD : Modified AASHTO maximum dry density”.

Except for references to “the (official) SABS mark”, the term “SABS” shall mean “SANS”.

PSA2 -3 **Items in Bill of Quantities.** (Subclause 2.8.1)

In the fourth line of Subclause 2.8.1, after the word "specification", add: "or in the measurement and payment clause of the standard or particular specification or section of project specification".

PSA3 **Materials**

PSA3-1 **Quality (Subclause 3.1)**

Where a material to be used in this Contract is specified to comply with the requirements of a South African National Standard Specification, and such material is available with the official SABS mark, the material used shall bear the official mark.

PSA4 **Plant**

PSA4-1 **Latrine facilities.** (Subclause 4.2)

The suitable sanitary services required by Sub-Clause 7.1.1 of the General Conditions of Contract, shall be of the chemical type and shall be readily accessible to workers at all areas of the site.

The Contractor shall make all the necessary arrangements with the relevant local authority for the disposal of the contents of the toilets on a regular basis.

PSA4-2 **Medical facilities and safety equipment**

The suitable first aid services required in terms of Sub-Clause 7.1.1 of the General Conditions of Contract and Subclause 4.2 of SANS 1200 A shall include, inter alia, a First Aid cabinet fully equipped and maintained with at least the minimum contents as listed in the Annexure (Regulation 3) to the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), to deal with accidents and ailments which are likely to occur during the construction period.

The Contractor shall provide personal safety equipment and facilities as required by Regulation 2 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

PSA4-3 **Restriction on the use of plant** (Subclause 4.3)

Except for the type of plant, and to the extent permitted in terms of the Specification Data or approved by the Engineer, the Contractor shall use only hand tools and equipment in the construction of the Works, or portion(s) of the Works, that are required in terms of the Specification Data to be constructed using labour intensive methods.

PSA5 Construction

PSA5-1 Drawings and details

Tender drawings shall not be used for construction purposes. Construction drawings and additional detailed information will be made available to the Contractor as and when required by him.

PSA5-2 Setting out of tasks for labour intensive work (Subclause 5.1.1)

Where labour intensive work is specified, the Contractor shall be responsible for the setting out of the task work.

PSA5-3 Survey

PSA5-3.1 Setting out of the Works (Subclause 5.1.1)

Before commencing any construction, the Contractor shall check the relative positions and levels of all reference pegs, bench marks and line pegs and inform the Engineer of any discrepancy.

The Contractor shall advise the Engineer of any conflict between the position of any part of the Works and an existing feature.

PSA5-4 Existing services (Subclause 5.4)

PSA5-4.1 Action by Contractor (Subclause 5.4)

No services other than access roads, overhead telephone and electrical services are known to exist. The Contractor will be held responsible for maintaining access at all times. No trenching will be permitted within 2 m of a telephone / electrical pole or stay.

PSA5-5 Safeguarding and accommodation of traffic

During the construction of any works across or along public roads, the Contractor shall, in co-operation with, and in accordance with any instruction from the relevant traffic authorities, provide access and take precautions for the protection of the Works and the safety of public and private vehicles and pedestrians in accordance with the requirements of Subclauses 5.2 and 5.7 of SANS 1200 A, 5.1.1 and 5.1.6 of SANS 1200 D.

Temporary traffic signs shall be erected at all diversions.

The number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport.

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

All temporary signs shall be of the type and size required for urban roads, as applicable, as specified in Road Signs Note No. 13, Roadworks, Road Traffic Signs Sub-Committee, CSRA (September 1988).

PSA5-6 Compensation for Occupational Injuries and Diseases Act (COID)

All labour employed on the site shall be covered by the COID Act. The Contractor shall pay in full, including the payment of the necessary levies, such amounts as are due in terms of the Act. The manner in which Compensation will be handled shall be resolved by the Contractor at the commencement of the Contract.

PSA7 Testing

PSA7-1 General

The Engineer will not have a laboratory on Site. The Engineer's acceptance control testing will be carried out by an independent commercial laboratory either on or off Site as may be necessary. Such testing will not relieve the Contractor of his obligations to carry out his own quality control testing to ensure that the materials and workmanship are within specification.

PSA7-2 Quality Control testing by Contractor

The Contractor shall carry out quality control tests on all portions of the Works as specified in the applicable specification, and shall make available all test results of quality control testing to the Engineer as soon as they become available, prior to seeking approval of the works for commencement of the next stage of construction.

PSA7-3 Making good work disturbed by testing

On completion of the testing, the Contractor shall make good, in an acceptable manner, work disturbed by testing, whether it be due to either his own quality control testing or acceptance control testing.

PSA7-4 Acceptance control testing

Where control testing is ordered by the Engineer in addition to the required testing specified, the Contractor shall arrange for acceptance control testing to be carried out according to TMH1 by an approved commercial laboratory.

These results shall be made available to the Engineer by the Contractor, within five days from date of order for all tests, except for soaked CBR's for which results shall be made available within twelve days from date of order. The Contractor shall make good the work disturbed by testing.

PSA8 Measurement and payment**PSA8-1 Time-related items (Subclause 8.2.2)**

Notwithstanding the stipulation of Subclause 8.2.2, an approved extension of time will only entitle the Contractor to payment in terms of Subclause 5.12.3 of the General Conditions of Contract 2015.

PSA8-2 Facilities for Engineer (Subclause 8.3.2.1 and 8.4.2.1)

Except for living accommodation, the sums tendered for Items A1.2 and A2.2 shall cover the costs of providing and maintaining all the facilities as detailed in SDAB3 and SDAB4.

PSA8-3 Sums stated provisionally by Engineer (Subclause 8.5)

Amend the penultimate sentence of Subclause 8.5 to read:
 "The percentage rate for (b)(2) above shall cover the Contractor's overheads, charges and profit on the work covered by the sums provisionally stated for (b)(1) above. Payment will be made on the basis of the sums actually paid for such work, exclusive of VAT".

PSA8-4 Prime cost items (Subclause 8.6)

Amend the penultimate sentence of Subclause 8.6 to read:
 "The percentage rate for (b) shall cover the Contractor's overheads, charges for taking delivery and profit on the supply of materials or goods covered by the sums stated in (a) above. Payment will be made on the basis of the sums actually paid for such materials or good, exclusive of VAT".

PSA8-5 Daywork (Subclause 8.7)

Provisional items for Daywork are scheduled as follows:

- a) Labour at hourly rates for skilled, semi-skilled and unskilled labourers.
- b) Material as a Provisional Sum with a percentage allowance on the net cost.
- c) The Contractor's own plant at hourly rates for various types.
 Tendered unit rates or unit rates that are agreed in terms of Subclause 6.5 of the General Conditions of Contract 2015, for the Contractor's own plant used for Daywork shall cover the full cost of the use of such plant and shall therefore, in addition to the items listed in Subclause 8.7, cover the cost of plant operators, consumable stores, fuel and maintenance.
- d) Hired plant as a Provisional Sum with a percentage allowance on the net cost. The Contractor will be paid the actual net cost of plant hired by him for Daywork and in addition will be paid a percentage allowance on the net cost of such hire, which allowance will cover the Contractor's own overhead costs and profit.

PSA8-6 Dealing with traffic. (Subclause 8.8.2)

Dealing with traffic, and the maintenance of access will be covered by Items A1.3 and A2.3.

PSA8-7 Dealing with existing services

Careful excavation carried out by the Contractor on the instruction of the Engineer to locate and expose existing services of which the exact location if not known, or where the existing service is found to be further than 2,0 m from the position indicated will be measured by volume. The rate shall cover all costs of materials, labour and plant, including specialist detecting equipment required to locate and expose the service.

PSA8-8 Dealing with water

The cost involved in the control of surface water, precautions against flooding and the drainage and removal of ground water in the trenches or the protection of the road prism for the proper execution of the Works, will be covered by the sum tendered for Items A1.3 and A2.3. The sum shall cover all costs with regard to the preventive measures that must be taken with regard to water and the repair of damaged portions of the Works.

PSA8-9 Freehaul and overhaul

Notwithstanding any clauses in any Standardized Specification or Standard Specification Section dealing with the definition, measurement and/or payment for transport, freehaul and/or overhaul, no measurement nor payment for overhaul will be made. All haulage will be considered to be freehaul and the cost thereof will be deemed to be covered by the rates for the provision or disposal of the applicable and/or surplus material.

PSA8-10 Miscellaneous items

An item which, in the payment clause column of the Bill of Quantities, refers to this Clause (SDA8-10), will be measured in the unit scheduled.

The sum or rates for such items shall cover the cost of all materials, labour and plant required to execute and complete the work as specified, described in the Bill of Quantities, or shown

PSA8-12 Compensation for Occupational Injuries and Diseases Act (COID)

The application of the COID Act to all employees will be measured and paid as a sum. The tendered sum shall cover the cost of paying the necessary workmen's compensation levies, the cost of administration as well as any other incidentals necessary to implement the process in accordance with the requirements of the COID Act.

Pro-rate amounts, of the sum tendered, based on the number of temporary employees engaged, will be paid each month.

PSA8-13 Security

The costs for providing security against theft and vandalism will be held to be included in the tendered sums from Items A1.3 and A2.3 and no separate payment will be made for this work.

PSA8-14 Community Liaison Officer (CLO)

PD7.4 (c) and (d) shall apply.

PSAB ENGINEER'S OFFICE. (SANS 1200 AB)**PSAB3 Materials****PSAB3-1 Nameboards**

In Subclause 3.1, the third line, amend the words "South African Institution of Civil Engineers" to read: "WATER SERVICES Infrastructure Grant (WSIG)". (See Drawing No: 014044-FIGURE-002).

Two nameboards, manufactured as specified in Subclause 3.1 and as shown on Drawing No 014044-FIGURE-002, shall be provided, and shall be erected, plumb and level, in position as directed by the Engineer.

The wording for the nameboards shall be as ordered at the commencement of the Works.

PSAB3-2 Office/Conference room

The Contractor shall provide and erect an office/conference room, measuring 4 m x 6 m which shall be provided with furnishings as specified in Items (b), (d), (f), (g), (i) and (j) of Subclause 3.2, and the following

- a) 1 x trestle table 3 m long x 1,5 m wide x 0,75 m high, with a smooth surface,
- b) 8 x strong wooden chairs,
- c) 2 x 15 A power sockets,
- d) 1 x Pin board to hold AO drawing,
- e) 1 x white board 1,5 m x 900 mm minimum, including associated pens,
- f) 1 x 110 l refrigerator, and
- g) 1 x Air conditioner for warm/cool air with a cooling capacity of at least 2,0 kW.

PSAB3-3 Protective clothing

The Contractor shall provide and replace when necessary four sets of safety helmets, boots and rubber wellington boots (of sizes as required) to members of the Engineer's site staff and his visitors.

PSAB4 Plant

PSAB4-1 Survey equipment

The Contractor shall provide the following survey equipment for use by the Engineer:

- a) 1 x engineer's automatic level with tripod,
- b) 1 x level staff with staff bubble,
- c) 2 x ranging rods,
- d) 1 x builder's spirit level of length 900 mm,
- e) 1 x steel tape of length 50 m,
- f) 1 x pocket tape of length 5 m,
- g) 1 x steel level transfer plate,
- h) 1 x measuring wheel, and
- i) all steel and wood pegs, concrete, hammers, picks, etc., that the Engineer may require.

The Contractor shall provide proof, at the start of the Contract, that the level has recently been serviced by an acceptable institution and shall, throughout the period of construction, service and maintain all survey equipment and he shall insure same and indemnify the Employer and the Engineer against all claims for loss, breakage or theft of such equipment.

The Engineer's level and staffs may be shared by arrangement between the Contractor and the Engineer, but the other instruments shall be provided for the exclusive use of the Engineer.

PSAB4-2 Parking facilities

A lean-to carport for on car, giving protection from the sun, wind and rain, and with a ground surface that is neither dusty nor muddy, shall be provided in a position adjacent to the Engineer's office for the exclusive use of the Engineer.

PSAB4-3 Vehicle for the Engineer

The Contractor will provide a suitable vehicle for the exclusive use by the Engineer and his site staff, for the duration of construction.

PSAB4-4 Medical facilities and safety equipment

The Contractor shall make the first aid services and such personal safety equipment and facilities as are required in terms of PSA4-2, available to the Engineer and his site staff.

PSAB4-5 Electronic equipment for the Engineer

The Engineer will provide various items of electronic equipment for the exclusive use by the Engineer

and his site staff, to assist in the administration of the Contract, for the duration of construction. The equipment may include a digital camera(s), computer(s), software, a printer(s), GPS, cell phones and related consumables.

The equipment shall remain the property of the Engineer at all times, including upon completion of construction and the Contractor shall have no obligation other than the payment in terms of PSAB8-2.

PSAB4-6 Accommodation for the Engineer's staff

The Contractor will locate suitable accommodation for the Engineer's staff which shall be leased in the name of either the Contractor or Engineer. The period of the lease shall extend until the end of the month in which the Completion Certificate is issued.

PSAB4-7 Mobile Internet connection for the Engineer

The Contractor will provide a complete 5 GB mobile internet service from Vodago or similar approved for the exclusive use of the Engineer and his site staff for the full duration of the Contract.

Ownership of the modem shall revert back to the Contractor on completion of the Contract.

PSAB5 Construction

PSAB5-1 Site instruction book

Throughout the construction period the Contractor shall supply a carbon triplicate book as a site instruction book.

This book shall be kept on site and shall be accessible to both the Contractor and the Engineer's Representative at all times. It shall be used:

- a) By the Contractor for providing the Engineer's Representative with any information regarding the construction of the Works which may be requested, and giving notification in writing of inspections, drawings, etc., required by the Contractor, and
- b) By the Engineer for the purpose of writing day-to-day instructions and confirming any verbal information or instructions given to the Contractor.

One copy of each site note issued shall remain in the book.

PSAB5-2 Key personnel. (Subclause 5.3)

The Contractor shall inform the Engineer of the person whom he has charged with the duties with respect to the Site in terms of the Occupational Health and Safety Act and the person(s) who are in possession of a valid certificate of competency in first aid. The Contractor shall give copies of the minutes of the site safety meetings to the Engineer.

PSAB5-3 Survey assistants (Subclause 5.5)

In terms of Subclause 5.5, one suitable, trained and experienced workman to be used as survey assistants shall be made available to the Engineer during working hours as and when required. As far as practical, the same assistants and labourers, shall be allocated to the Engineer for the full duration of construction.

PSAB8 MEASUREMENT AND PAYMENT

PSAB8-1 Transportation for the Engineer

The Contractor shall pay the Engineer, on the monthly invoice of the Engineer, the rate per month stated in the Bill of Quantities and shall recover the same from the Employer under Item A5.1.

The Contractor's overheads and profit on the above monthly payments will be paid under Item A5.2 at the tendered percentage mark-up on the payments made.

PSAB8-2 Electronic equipment for the Engineer

The Contractor shall pay the Engineer, on the monthly invoice of the Engineer, the rate per month stated in the Bill of Quantities and shall recover the same from the Employer under Item A5.3

The Contractor's overheads and profit on the above monthly payments will be paid under Item A5.4 at the tendered percentage mark-up on the payments made.

PSAB8-3 Accommodation for the Engineer's staff

The Contractor shall pay the Engineer, on the monthly invoice of the Engineer, the rate per month as stated in the Bill of Quantities and shall recover the same from the Employer under Item A5.5.

The Contractor's overheads and profit on the above monthly payments will be paid under Item A5.6 at the tendered percentage mark-up on the payments made.

PSAB8-4 Mobile internet service

This item will be measured and paid for on a time-related basis.

The tendered rate shall cover all costs associated with the purchase of the modem, service provider's contract costs, hardware insurance as well as Contractor's overheads and profit.

PSAB8-5 Fax machine

The cost of installation and usage of the fax machine will be deemed to be included in the sums tendered for Items A1.2 and A2.2 to a maximum cost of R2,000 per month.

PSAB8-6 Survey equipment and survey assistant

The tendered sums for Items A1.2 and A2.2 shall include for the cost of the provision and maintenance of the survey equipment and the cost of providing the Engineer with two survey assistants.

PSAB8-7 Environmental monitoring

The Contractor shall pay the Engineer on the monthly invoice of the Engineer, the rate per month as stated in the Bill of Quantities and shall recover the same from the Employer under Item A5.7.

The Contractor's overheads and profit on the above monthly payments will be paid under Item A5.8 at the tendered percentage mark-up on the payments made.

PSAB8-8 Telephone

The Contractor shall pay the Engineer on the monthly invoice of the Engineer, the rate per month as stated in Bill of Quantities and shall recover the same from the Employer under Item A5.9.

The Contractor's overheads and profit on the above monthly payments will be paid under Item A5.10 at the tendered percentage mark-up on the payments made.

PSO OCCUPATIONAL HEALTH AND SAFETY

PSO3 Materials

PSO3-1 Hazardous substances (Subclause 4.1)

The materials to be used in this Contract include the following hazardous materials

Petroleum and petroleum products, Cement, Timber preservatives, Paints.

PSO4 Plant**PSO4-1 Medical facilities and safety equipment** (Subclause 4)

See PSA4-2.

PSO4-2 Protective clothing and equipment (Subclause 4.2.2)

See PSAB3-3.

PSO5 Construction**PSO5-1 Risk assessment** (Subclause 4.3.8)**PSO5-1.1 Construction work**

Construction work to be undertaken in this Contract includes:

- a) Operation of plant and vehicles.
- b) Excavation of trenches.
- c) Laying, bedding and backfilling of pipes.
- d) Working in road reserves.
- e) Reinforced concrete work.

PSO5-1.2 Hazardous conditions

Hazardous conditions exist in trenching, pipelaying and road crossings, namely:

- a) Collapse of excavations,
- b) Dropping of pipes,
- c) Public vehicle activity,
- d) Construction plant activity
- e) Movement of livestock.

The Contractor shall provide and use temporary equipment effectively to ensure a safe working environment. Among others, the Contractor shall provide as required:

- i) barricading and fencing,
- ii) road signage,
- iii) traffic control,
- iv) lifting devices,
- v) competent supervision.

The Contractor shall ensure that safe working methods are applied at all times and that his workers are properly trained and understand the conditions under which they will work.

PSO5-2 Safeguarding and accommodation of traffic (Subclause 4.3.10.2)

During the construction of any works across or along public roads, the Contractor shall, in co-operation with an in accordance with any instruction from the relevant traffic authorities, take precautions for the protection of the Works and the safety of public and private vehicles and pedestrians in accordance with the requirements of Subclauses 5.2 and 5.7 of SANS 1200 A, 5.1.1 and 5.1.6 of SANS 1200 D as amended by SPA5-5 and SPD5-4.

Temporary traffic signs shall be erected at all diversions.

The number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport.

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

PSO5-3 Safety of general public (Subclause 4.3.10.2)

As the works are in a residential area, the Contractor shall take special precautions to prevent public

and livestock access to any danger areas on the Works, e.g. by temporary barricades, notices and/or fencing.

PSO5-4 Blasting and use of explosives (Subclause 5.3.14.3)

In addition to Subclause 5.1.1.3 of SANS 1200 D and PSD5-1, the Contractor shall take adequate precautions to prevent fly rock.

PSO5-5 Power lines and cables

All power lines and cables shall be treated as live until proven otherwise.

Care shall be exercised and all necessary precautions taken while working under power lines or near cables with construction plant and when carrying or working on ladders in the vicinity of power lines.

PSC SITE CLEARANCE. (SANS 1200 C)

PSC5 Construction

PSC5-1 Areas to be cleared and grubbed. (Subclause 5.1)

Only the approved minimum area required for the execution of the Works including areas on which material shall be stockpiled for later reuse or on which material shall be dumped and spread, shall be cleared and grubbed.

For the pipe trenches indicated by the Engineer, generally a sufficiently wide strip equal to the trench width plus the estimated allowance for trench side slopes plus the width of stockpiled backfill and a 600 mm width (which shall be maintained alongside the trench) plus the width of access to the trench shall be cleared of vegetation.

The vegetation cleared shall be disposed of at suitable off-sites as directed in PS5-5.

PSD EARTHWORKS. (SANS 1200 D)

PSD2 Interpretation

PSD2-1 Definition. (Subclause 2.3)

PSD2-1.1 Restricted excavation

All excavation required shall be regarded as restricted excavation.

PSD3 Materials

PSD3-1 Classes of excavation. (Subclause 3.1.2)

The excavation of material for the purposes of measurement and payment on this Contract will not be classified as intermediate excavation nor as boulder excavation Class A or Class B. Soft excavation will be held to include material classified in Subclause 3.1.2 as intermediate excavation.

PSD5 Construction

PSD5-1 Preparation of founding surfaces below footings and floors

PSD5-1.1 Inspection. (Subclause 5.2.2.1(d))

Excavations to final level, ready to receive a blinding layer or concrete footing, shall be completed less than 24 hours before such layer or footing is cast.

The Contractor shall arrange for the inspection by the Engineer or his Representative of all surfaces immediately before casting concrete.

PSD5-1.2 Over-excavation. (Subclause 5.2.2.1(e))

If the material in the bottom of an excavation is loosened before concrete has been cast, or if there is

any over-excavation, any loose or disturbed soil shall be removed and the over- excavation shall be replaced by mass concrete Grade 15/20 mm.

Unsuitable foundation material shall be excavated only on the written instructions of the Engineer and be replaced with mass concrete Grade 15/20 mm.

PSD5-2 Disposal of material. (Subclause 5.2.2.3)

All surplus material and all unsuitable material from excavations and clearing and grubbing operations shall be removed from the Site by the Contractor and disposed of at the site described in PS5-5.

Dumping shall proceed in an orderly manner with coarse material placed at the bottom and covered with finer material, where possible. Upon completion of dumping the material shall be shaped to provide free-draining surfaces and slopes and finished off to the satisfaction of the Engineer.

PSD5-3 Compacted gravel layer

Where shown on the drawings, a 150 mm thick gravel layer shall be compacted to 95% MAMDD. The gravel shall have been approved by the Engineer before the backfilling takes place.

PSD5-4 Excavation of hard rock by means of explosives and without explosives

The Contractor shall not use explosives within 8 m of any pipeline or within 12 m of any building. Should the Contractor have sufficient reason not to excavate hard rock within 16 m of any major watermain or within 24 m of any building without the use of explosives, the Engineer will approve the payment at the tendered rates for the excavation of hard rock without the use of explosives. The application of this ruling will not relieve the Contractor of his responsibilities in accordance with Subclause 5.1.1.3 or otherwise in terms of the Contract.

PSD8 Measurement and payment**PSD8-1 Extra-over payment for excavation classification**

No extra-over payment will be made for excavation in material classified in terms of Subclause 3.1.2 as intermediate excavation or boulder excavation Class A or Class B. The tendered rate for excavation in all materials shall include for the cost of such excavation.

In accordance with PSD5-4 separate items are scheduled for hard rock excavation as follows:

- i) hard rock excavation using blasting or mechanical means, and
- ii) hard rock excavation using hand pneumatic hammers.

PSD8-2 Cut and fill

Earthworks will be measured by volume once only in excavation.

No separate payment will be made for selection of material to be used in embankments, etc. nor for the double handling due to stockpiling. The Contractor shall include for this work in his rates tendered for bulk excavation.

PSD8-3 Restricted excavation

The volume of restricted excavation will be calculated from the net plan dimensions and the difference between the bulk excavation levels and profiles shown on the drawing, or the original ground profiles, as applicable, and the final levels shown on the drawings.

PSD8-4 Over-excavation

No separate payment will be made for over-excavation as described in PSD5-1.2, except where such excavation is ordered by the Engineer.

PSDB EARTHWORKS (PIPE TRENCHES). (SANS 1200 DB)**PSDB3 Materials****PSDB3-1 Geotextile blanket**

In addition to the requirements of Subclause 3.1.4 of SANS 1200 LE the geotextile shall comply with the following:

- **Mass:** **150 g/m² (minimum)**
- **Strength in all directions:** **5,9 kN/m (minimum)**
- **Equivalent opening Size (EOS):** **105 micrometres (maximum)**

The Engineer's approval of the make and grade of the geotextile shall be obtained by the Contractor before the Contractor orders any geotextile or uses it on the Works.

PSDB5 Construction**PSDB5-1 Unstable trench bottom**

The Engineer may, upon consideration of the condition of the trench bottom, particularly with regard to the properties of the soil materials, order the use of a crushed stone layer in order to provide a stable platform for placing of the pipe bedding and laying the pipe in certain sections of the trenches. The stone layer shall consist of 19 mm single-sized crushed stone, and shall have a specified thickness of 150 mm over the specified minimum base width.

Should the material in the trench bottom or the bedding material be of such a nature that it can penetrate the stone layer, the Engineer may instruct the Contractor to enclose the stone layer completely within a geotextile filter blanket which shall comply with the requirements of PSDB3-1, and shall have overlaps of at least 200 mm.

PSDB5-2 Areas subject to traffic loads. (Subclauses 3.5(b) and 5.7.2)

All trenches within the road reserves will be considered to be subject to traffic loads and the backfill material and compaction in these trenches shall comply with the requirements of Subclauses 3.5(b) and 5.7.2.

PSDB5-3 Depositing material excavated from trench

Unless otherwise ordered by the Engineer, all excavated material shall be kept within the pipe servitude and shall be so deposited as not to interfere with or endanger the Works (for example, by causing the sides of the excavation to collapse), other property or traffic. The toe of the bank of excavated material shall be trimmed well back from the edge of the trench so as to leave a minimum 0,6 m clearance between the toe of the bank and the edge of the trench. The Contractor shall keep this strip clear of excavated material at all times.

The Engineer may, in terms of Subclauses 5.6.3 and 5.6.4, order the Contractor to remove any material which he considers liable to endanger or interfere with the Works, private property, traffic, or pedestrians, and to place such material at some other approved position. If the necessity for such removal is, in the opinion of the Engineer, a result of some default on the part of the Contractor, the cost thereof shall be borne by the Contractor, otherwise the cost will be borne by the Employer at a sum pre-agreed with the Engineer or measured as dayworks.

The Contractor shall take steps to avoid burying or contaminating topsoil which shall be set aside for replacing, as far as practical, on the surface from which it was excavated.

PSDB5-4 Hand excavation

Where steep slopes (steeper than 1:4), the lack of unobstructed space or the proximity of existing services prohibits the use of a 55 kW back-acting excavator for trench excavation, the Engineer may order or permit the use of hand excavation.

PSDB7 Testing**PSDB7-1 Testing the compaction of backfill to trenches and reinstatement of surfaces.
(Subclause 7.1)**

The Contractor shall carry out density tests as specified in TMH1, in the positions indicated by the Engineer, to determine the compaction of the backfill material in the trenches and the material used for reinstating the road construction layers. No single test result which is below the specified density, will be accepted.

In the case of trenches in areas subject to traffic loads, the Contractor shall, notwithstanding the terms of the second sentence of Subclause 7.1, bear the cost of all density tests carried out except as follows. Where the test results are equal to or exceed the specified density, the Employer will bear the cost of that number of those tests ordered by the Engineer in excess of one test per 2 m³ of compacted material, based on the total volume of backfill and reinstated road layers, including the replacement of any over excavation, in areas subject to traffic loads.

The Contractor shall also bear the cost of those density tests, carried out by the Engineer, of which the test results are below the specified density.

PSDB8 Measurement and payment**PSDB8-1 Basic principles. (Subclause 8.1.2)**

In Subclause 8.1.2(c), amend the last sentence to read:

"The ground surface will be that existing after any bulk excavation has been carried out and before any embankment has been constructed, unless a portion of the embankment has to be constructed in order to achieve an acceptable cover over a pipe that is to be installed, in which case, measurement will be made from the level of embankment that produces an acceptable minimum cover over the pipe."

PSDB8-2 Excavation. (Subclause 8.3.2)

The rates for excavation of trenches shall also cover the cost of the activities with respect to areas subject to traffic loads as set out in Subclause 8.3.3.3, - and all costs of density testing to be borne by the Contractor as specified in PSDB7-1.

PSDB8-3 Crushed stone bedding layer and geotextile blanket

Where the use of a layer of crushed stone in the trench bottom has been authorized by the Engineer, it will be measured by volume calculated according to the length multiplied by the specified thickness and specified minimum base width.

The rate shall cover the cost of all additional excavation and preparation of the trench bottom to accommodate the layer of stone, the removal of unsuitable material, the supply and placing of a layer of stone at least the specified thickness over at least the specified width and all related activities in order to produce a stable platform.

Where the Engineer has authorized the use of geotextile filter blanket, this shall be measured by area as:

Area = 2 x (specified thickness + minimum base width) x net length.

The rate shall include the cost of supply, placing and losses as a result of overlaps and over excavated trench widths.

PSDB8-4 Hand excavation

Where hand excavation is ordered or approved in terms of PSDB5-4, the work will be measured by length of trench or by volume of material excavated by hand and will be paid extra- over the rate for normal trench excavation.

The rate shall cover all additional costs of excavating by hand.

Hand excavation for the location of services will be measured elsewhere.

SPECIFICATION QB – 05/04: BUILDING MATERIALS AND WORKMANSHIP

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SPECIFICATION BUILDINGS : BUILDING MATERIALS AND WORKMANSHIP**1. GENERAL****1.1 Scope**

This Section covers the requirements for materials and workmanship in the construction of general building work. Materials and construction techniques required by the schedule of Quantities or the drawings which are not covered by a clause in this section shall be supplied and constructed strictly in terms of the appropriate Clause or Clauses of the standard Building Regulations.

1.2 Materials

All materials shall be of best quality and possess those properties best suited to the purpose for which they are used.

2. DRAINLAYER

The Specifications dealing with sewers, stormwater, manholes and catchpits, and bedding shall apply or in the event of no such specifications being specified, then SANS 1200LB, LD and LE shall apply.

3. EXCAVATOR

In addition to the specification dealing with general excavation and trench excavation the following shall apply or in the event of no such specifications being specified, then SANS 1200 D and DB shall apply.

3.1 Materials**3.1.1 Filling**

Filling shall be clean sand or approved sand with no or little clay content.

3.1.2 Hardcore Filling

Hardcore filling shall be 150mm thick unless otherwise specified and shall be formed with hard broken stone or brick of 75mm maximum size, blinded with sand or dry sub-soil.

No clay, rubbish, tins or vegetation or other debris shall be used in the filling.

3.2 Construction**3.2.1 Excavation**

The depth of excavation shall be such that the top of the concrete foundations are not less than 150mm below existing ground level. Trenches and holes shall be excavated to the dimensions of the foundations shown on the drawings or to such other depth as directed in order to ensure a firm foundation.

Bottoms of foundations shall be level and the sides trimmed to full width. The bottoms of trenches shall be stepped in brick/block course dimensions as required.

Foundation trenches shall have been inspected and approved by the Engineer before the concrete is poured.

3.2.2 Filling under floors

The filling under floors shall be constructed in layers of thickness not exceeding 200mm before compaction, watered and compacted to 93% (100% in the case of sand) of modified AASHTO maximum density.

3.2.3 Hardcore Filling

Hardcore filling shall be leveled and thoroughly compacted by ramming, to receive the concrete floor.

4. CONCRETOR

In addition to the specification dealing with concrete the following shall apply.

4.1 Materials

4.1.1 Polythene sheeting

Polythene sheeting shall comply with SANS 952, type C, 0.25mm thick. All joints shall be overlapped and sealed by pressure sensitive tape.

4.1.2 Prestressed concrete lintels

Subject to prior written approval prestressed concrete lintels may be used provided that they have been manufactured in an approved factory, of mix 35MPa/6,7 mm strength concrete, reinforced with steel wire not less than 4mm diameter, tensile strength 1300 – 1380 MN/m² stressed to not less than 900MN/m². The number of reinforcing wires in concrete lintels for the various spans shall be as set out below:

Width of opening (m)	Reinforcing per half brick soffit width
Under 1.8	2 x 4mm HT wire
1.80 to 3.00	3 x 4 mm HT wire

Such lintels shall be not less than 60mm deep and suitable roughened, indented or shaped to give a good bond between the lintel and the mortar for the first course of brickwork above.

4.2 Construction

4.2.1 Polythene sheeting

Before casting the floor slab a polythene sheeting complying with Clause 4.1.1 hereof shall be laid on the compacted hardcore fill.

4.2.2 Prestressed concrete lintels

Regardless of whether the width of prestressed units are full or half brick or 150mm they shall be laid to the full width of the bricks in the wall.

5. BRICKLAYER

5.1 Materials

5.1.1 Bricks

All bricks used on the works shall comply with SANS 227. They shall be burnt clay bricks free from cracks, stones, unground lumps of material or lumps of lime or other defects and when two are stuck together shall give a clear ringing sound. Face bricks shall be hard-burnt and the colour shall be subject with approval. The degree of efflorescence shall be nil. Bricks shall be obtained from an approved manufacturer and the contractor shall submit to the Engineer sample bricks which if approved will be retained by him as standards. Sampling shall be carried out in accordance with section 6 of SANS 227. The Engineer shall have the right to reject any consignment from which bricks taken at random are not equal in all respects to the standard. The delivery and removal of which shall be solely at the contractor's cost.

Except where otherwise stated on drawings or in the schedule of Quantities, NFX (non facing extra) bricks complying with the SANS 227 Specification for general purpose (special) class of masonry units shall be used.

Bricks for lintels, and for those parts of the structure where chases are required to be cut, shall not contain cavities or perforations.

5.1.2 Sills

Where external sills are required to be of brick, the bricks shall be glazed face bricks laid on edge.

Where shown on drawings or in the schedule of Quantities, window sills internal and external, shall be quarry tiles of the sizes specified. They shall be red, hard-burnt of approved manufacture, true and even in thickness and in shape and colour, with good arrises, free from all defects and blemishes.

5.1.3 Mortar

Lime shall be best quality pressure hydrated type A2P and shall comply with SANS 523. It shall be well slaked and properly hydrated. Cement for mortar shall comply with SANS 50179-1 as specified for concrete.

The sand shall be clean pit sand free from clay or other impurities, and shall be properly screened and washed if directed by the Engineer.

The water shall be approved quality fresh water.

Unless otherwise specified, the mortar for brickwork shall be composed of one part of lime to six parts of sand with 10% (of volume of sand and lime) of cement added immediately before use and thoroughly mixed.

5.1.4 Wall ties, brick reinforcing and wall plate anchors

Wall ties shall be 3,50mm galvanized steel wire ties equal to the "modified PWD Type" or "Butterfly" type wall ties and shall comply with the requirements of SANS 28.

Reinforcing for lintels and other brickwork where ordered shall be either hard drawn steel wire of 572-695N/mm² ultimate strength or mild steel, both complying with SANS 920 (See also Clause 5.2.4 hereof).

Wall plate anchors shall consist of 32mm wide by 1,6mm thick galvanized hoop iron 1,5m long.

5.1.5 Damp proofing

Damp proofing shall consist of one layer of fabric complying with SANS 248, type GH (33,5 kg per m²).

5.1.6 Air Bricks

Air bricks shall be approved terra cotta, with vermin proof copper gauze at back, built in on the outside face of walls. On the inside face 225 x 150 mm square pattern fibrous plaster air gratings with vermin proof copper gauze at back shall be built in.

5.2 Construction

5.2.1 Brickwork

All brick foundation walls, superstructure walls, piers and the like shall be built to the various lengths, heights and thicknesses shown and figures on the drawings with bricks as described and unless otherwise specified, built in English bond. Where thicknesses of 110, 220, 280 and 330mm are shown on the drawings they are regarded as nominal and are subject to adjustment to suit bricks approved for any particular project.

No false headers shall be built in and none but whole bricks shall be used except where legitimately required to form bond. The bricks shall be well soaked in water immediately before being laid and the course of bricks last laid shall be well wetted before laying a fresh course upon it.

Brickwork shall have the joints flushed up at every course solid throughout the whole width of each course and all to be laid on a solid bed of mortar.

All walls shall be carried up regularly so that no part of the walling is more than 1,3m higher than the adjoining work except as shown on the drawings.

Mortar joints to brickwork generally shall not exceed 10mm in thickness. The joints of all walls intended to be plastered or tiled shall be raked out as the work proceeds to form a key for plaster.

Where brick facing and pointing is specified, the walls shall be faced with facing bricks as specified and, unless otherwise specified, built in stretcher bond in 3:1 cement mortar, and pointed with a neat recessed joint formed with a steel jointing tool well pressed into the joints as the work proceeds. The face brickwork shall be tied back to the walling with wire ties at the rate of 6/m². The face work shall be protected by pasting paper over exposed surface, or by other means approved by the Engineer. On completion, the face shall be cleaned down with spirits of salts, wire brushed and finally washed down with ammonia and water.

Ventilators, gratings, dowels, corbels, ties, ends of timber, and slips for fixing joiner's work shall be built in as work proceeds.

5.2.2 Mortar

The mortar shall be mixed in small quantities, with the materials mixed dry on a proper platform with water added gradually through a fine rose and the mixture turned over until the ingredients are thoroughly incorporated. It is essential that mixing platforms shall be well cleaned and stale mortar removed before any batch of mortar is prepared for mixing. Mortar shall be used within 2 hours of cement being mixed in.

5.2.3 Cavity walls

Cavity walls shall have the inner and outer skins tied together with ties 1m apart horizontally in every fourth course with alternate rows staggered.

Mortar droppings shall be carefully gathered up on laths supported on the ties and the laths shall be removed and cleaned at every fourth course. Openings shall be left at the bottom of walls as required for cleaning, and afterwards built in and made good. The wire ties shall be cleaned of all mortar droppings. Vertical dry joints for drainage shall be left at every third brick in the bottom course.

Cavities at jambs and ends of walls shall be built solid for a depth of 110mm and cavities below sills or at heads of walls shall be built solid for three courses of brickwork.

Doors and windows shall be provided with damp proof courses to sills and jambs.

5.2.4 Brick lintels

Brick lintels shall be formed of bricks complying with the same specifications as those of the wall in which the lintel is being formed except as specified in Clause 5.1.1 above. They shall be properly bonded longitudinally and be bedded in 1:3 cement mortar. At each reveal, the end brick of the bottom course shall have a bearing of at least half its width.

Brick lintels shall be reinforced for their full length and shall be formed at least of the minimum number of courses, all as set out in table A, below.

Brick lintels shall be formed on rigid temporary supports which shall be left in position for seven days or such longer period as the Engineer shall order.

Subject to prior written approval, prestressed concrete lintels may be used provided they comply with Clause 4.1.2 hereof.

Brickwork shall be built in 1:3 cement mortar with all joints filled solid with mortar. Lintels shall have a bearing of not less than 225mm on each side of the opening.

Type of lintel	Width of opening m	Min No of brick courses over lintel	Reinforcing per half brick soffit width
Brick Reinforced	Under 1,50	4	3/3,15 mm HT wire
	1,50 to 2,25	6	3/6 mm Mild Steel Or 3/3,15 mm HT wire
	2,25 to 3,00	8	4/3,15 mm HT wire
Concrete Prestressed	Under 1,8	Beam +3	(See Clause 4.1.2 hereof)
	1,81 to 3,00	Beam +4	(See Clause 4.1.2 hereof)

5.2.5 Window sills

Unless otherwise scheduled, external sills shall be constructed of bull nosed facing bricks, or quarry tiles, of approved colour as shown on the drawings or in the schedule of Quantities. Where specified, bricks shall be laid to a uniform slope, true to line and level, and solidly bedded in 3:1 cement mortar with damp proofing, all as shown on the relevant drawing. Joints which shall not exceed 9mm in width shall be neatly pointed.

Internal sills shall be constructed of red, or other approved colour, quarry tiles set in 3:1 mortar and laid true to line and level. Joints shall not exceed 6mm in width. When similar tiles are scheduled, or shown for external sills, they shall be laid as for internal sills but on a uniform slope. All sills shall be kept free from cement and other stains, and shall be cleaned off on completion.

5.2.6 Damp proof course

Damp proofing in the walls shall be laid without any longitudinal joints, and lapped 150mm at all end joints and intersections. Damp proofing shall be kept 10mm back from the external face of walls and pointed in cement mortar.

Damp proofing under floors shall be laid with 150mm laps at all joints in both directions.

Damp proofing in cavity walls shall be stepped up one course over a cement mortar triangular fillet in the bottom of the cavity.

Where brickwork rests on concrete the damp proofing shall be sealed to the concrete with hot bitumen.

Doors and windows shall be provided with damp proofing to sills and joints.

5.2.7 Separation of concrete from brickwork - jointing

Concrete slabs and beams, including inlets, shall be separated from brickwork by covering the contact bearing surfaces with 0.56mm thick galvanized steel sheet bedded and leveled up 3:1 cement mortar before concrete is cast. The sheet iron shall be lapped not less than 25mm at joints and intersections.

Unless otherwise specified or shown on drawings, 12mm impregnated soft board shall be placed against the end of brickwork where in contact with the sides of concrete columns and walls.

5.2.8 Bagged finish to brickwork

Bagged finish to brickwork, if done whilst the mortar in joints is still soft, shall be formed by rubbing over the wall surfaces with wet rough sacking, until all joints and crevices are filled up and an even surface obtained. Mortar, as specified in Clauses 5.1.3 and 5.2.2 hereof, shall be added as may be necessary.

If bagging to walls is done after the mortar in joints has set, the wall surfaces shall be rubbed over with wet rough sacking as above, but cement grout shall be added as necessary to fill up joints and crevices and to obtain an even surface.

6 CARPENTER AND JOINER

6.1 Materials

6.1.1 Construction timber

All timber used shall be of good sound quality thoroughly seasoned, straight, sawn square and free from sap and reasonably free from shakes, large, loose or dead knots, sapwood and wany edges.

Unless otherwise specified, all timber work for constructional purposes shall be in "merchantable grade" timber, complying with the requirements of SANS 1783-2, except that no finger joints within 500mm of the end of any member, and not more than one finger joint per 3m length will be accepted. Timber shall be ordered in the nominal cross sectional dimensions and not to the nearest 0,3m length in which it is to be used, except that finger jointed timber made according to SANS 10096 will be permitted.

Timber for brandering shall comply with the requirements of SANS 1783-4.

All softwood timber shall bear the mark of the South African Bureau of Standards.

All timber shall be treated against insect and other wood damaging infestation according to the recommendations of the Department of Entomology, SANS 673 and SANS 10005.

All timber to be built into walls and wall plates shall, in addition to the above, receive two coats of Solignum, carbolineum or other approved wood preservative.

6.1.2 Joinery timber

The type of timber shall be approved by the Engineer prior to the commencement of manufacture.

All timber used for joinery shall be best quality, specially selected, treated against insects as specified in Clause 6.1.1 hereof, and shall be good sound quality, well kiln dried and free from sap, large loose or dead knots shakes, wany edges or other defects or blemishes such as flower grain. Solid shelving shall comply with SANS 1783-3.

The glue used shall be compatible with the treatment applied against insect attack and shall comply with SANS1349. In the case of external doors and approved waterproof glue shall be used.

6.1.3 Timber doors, door frames and windows

All timber doors, door frames and windows shall be of stout design and construction and of the type scheduled.

a) External doors

Standard type external doors, shall be of hardwood, and, unless otherwise dimensioned on the drawings, shall be 2 032 x 813 x 45mm single leaf, framed, ledged and braced and, except for vertical V jointing, flush on the outside. The stiles and top rail shall be 140 x 45mm, middle rail 140 x 23mm and bottom rail 215 x 23mm. Bracings shall be 115 x 23mm. Door panels shall consist of 95 x 22 mm vertical boarding, tongued and grooved and V-jointed on the outside. Panels shall be tongued into slots in stiles and top rails and countersunk-screwed with brass screws to middle and bottom rails and bracings. Where doors are fitted with louvers, the bottom rail shall be 215 x 45mm, and louvre slats and linings shall be tongued to the stiles and bottom rail. The slats shall be not less than 55 x 10 mm, and spaced at a maximum of 45mm centre, and sloped downwards to the outside. Louvred doors shall be fitted with vermin proofing on the inside.

Where scheduled, external double doors shall be made in two leaves to the overall dimensions shown on the drawings, shall be of similar construction to the standard door described above, and shall have rebated stiles meeting flush at the centre.

Where softwood timber Z type doors are scheduled they shall be made to the overall dimensions shown on the drawings, ledged and braced and, except for vertical V jointing, flush on the outside. The top rails shall be 165 x 45 mm, the middle and bottom rails shall be 165 x 23 mm, and braces 115 x 23 mm. Door linings shall be 95 x 22 mm, tongued and V-grooved, and shall be countersunk screwed with brass screws to rail and braces.

The jambs and head of standard size external frames shall be 95 x 70 mm, while the sill shall be 95 x 45 mm with both a dripmould and groove for weather strip cut in. All frames shall be rebated.

b) **Wooden flush floors**

Wooden flush doors shall comply with SANS 545 and shall, unless stated otherwise, be single interior class, hollow core type, 2030 x 812 x 40 mm size, without openings, have top and bottom rails at least 70 mm wide, be clad with plywood type 1A and grade A to SANS 929, unless otherwise specified in the Project Specification, and be fitted with two solid timber edge strips. The doors shall be painted.

The jambs and head for internal doors shall be 70 x 70 mm.

c) **Windows**

Wooden windows shall be constructed in accordance with detailed specifications and/or drawings, or shall be obtained from the manufacturer specified scheduled.

All window frames shall be grooved as required for plaster, and all joints shall be pinned with hard wood pins cleaned off flush.

6.1.4 Ceilings

Ceilings shall be 6 mm thick fibre cement cellulose ceiling board complying with SANS 803 or 6,4mm thick gypsum ceiling board complying with sans 266, and shall be fitted to 38 x 38 mm brandering.

Cove cornices shall be fitted to all ceilings. For fibre cement ceilings the cornices shall be 55 mm radius x 6 mm thick fibre cement cove cornices and for gypsum board ceilings they shall be 75 mm gypsum cove cornices.

Joints between ceiling boards shall be covered with 25 mm half round wood cover beads.

6.1.5 Roofing

The type of roofing shall comply with SANS 685 and shall be straight "Big Six" or Canadian Pattern" corrugated sheets with a minimum thickness of 5,5 mm and a depth of corrugations of 57 and 60 mm, respectively.

Aluminium "Longspan" roofing shall be in straight sheets 0,71 mm thick and shall comply with SANS 903.

Corrugated galvanized iron sheets shall be 0,63 mm thick before being galvanized. Ridges and hips shall be the same gauge as the sheeting, shall be 450mm in girth and have a roll top.

IBR pattern galvanized deep-fluted sheets and fittings shall be 0,63 mm thick before galvanizing.

'Double Roman' cement tiles shall comply with SANS 542. Their colour shall be subject to approval.

Fascia and barge boards shall be of 225 x 15 mm pressed fibre cement, unless timber boards are scheduled or shown on the drawings.

6.1.5 Roofing underlay

Where indicated or shown on the drawings, roofing underlay shall be yellow under-tile polythene sheeting complying with SANS 952, type C, 0,25 mm thick.

6.2 Construction

6.2.1 Carpentry general

Timber work shall be neatly executed and finished and all jointing shall be accurately cut and well fitted together.

Timber shall be of sizes specified or stated on drawings and shall be framed, checked, lapped, spiked and /or bolted together and as detailed below unless otherwise specified.

Wall plates shall be halved at junctions and angles. Purlins, battens, etc., shall be belted at junctions and in all cases the joints shall be placed over the point of support and well spiked.

Where splices are necessary in rafters ties or ceiling joints, the timbers shall be lapped at least five times the width of the timber and securely spiked. Splices in timber wider than 114 mm shall be bolted with at least three 9,5 mm bolts and washers, in addition to spiking.

Except where framed, or where bolts are specified to be used, all intersections and passing of constructional timbers shall be adequately spiked and where possible clinched in addition.

A patented nail system and factory made jointing techniques for roof trusses will be permitted with the written prior approval of the Engineer.

Roof trusses shall be set up at the centres indicated on the drawings, or as instructed by the Engineer, on 114 x 38 mm timber plates, and securely strapped down with mild steel straps, with one end wrapped around and spiked to the foot of the truss of the purlin, and the other end built sufficiently far into the brickwork to preclude any risk of the finished roof being blown off.

6.2.2 Joinery

All joinery shall be well manufactured, all necessary framing, scribing, notching, mitring, fittings etc. being properly executed. All framed joints shall be pinned in addition to being glued. No portions of panels shall be glued. Nailing where necessary, shall be done on the surrounding mouldings and in most concealed manner.

All items shall be constructed of the timber specified, or approved by the Engineer in writing, and shall comply with the finished size dimensions as shown on the detail drawing.

The Engineer reserves the right to reject any joinery which is considered to be below the required standard, either because of the timber used or the quality of workmanship.

6.2.3 Timber doors and windows

Door frames shall be of profile suitable for the walls in which they are to be fixed, and shall be secured to walls with three lugs at each jamb. The feet of frames shall be firmly strutted and fixed solidly to floors complete with GI weatherproofing strips, as shown on the drawings.

Softwood doors and frames shall be knotted and primed before fixing.

All doors shall be hung plumb and level, so as to swing freely, and shall be stained, oiled or painted two coats approved paint after erection.

All external doors shall be hung on one and a half pair of hinges screwed into wooden frames or welded to steel frames. The doors shall be furnished with barrel bolts, and mortice lock.

Internal doors shall be hung on frames with one pair of hinges welded or screwed into the frames, and furnished with 2-lever mortice locks and bronze or chromium plated furniture as scheduled.

Window frames shall be secured to walls with 2 mm galvanized hoop iron lugs 38 mm wide, one end bent and screwed to frame and two screws to each and built 450 mm into wall with other end turned up into brickwork joints. Windows not exceeding 914 mm in height of clear opening shall have two lugs at each jamb, but windows exceeding 914 mm in height of clear opening shall have three lugs at each jamb unless otherwise specified.

6.2.4 Ceilings

Ceiling, where shown on drawings, shall be erected on brading at 300 x 1000 mm spacing, or in accordance with the manufacturer's recommendation and approval.

6.2.5 Roofing

a) Fibre Cement

Fibre cement roofing shall be carefully laid and fixed in accordance with the manufacturer's instructions, with side laps of half a corrugation and 300 mm end laps. All cutting shall be done with a suitable saw. Sheets shall be carefully drilled through the crown of the corrugation for, and secured to wood purlins with galvanized steel hook bolts, with washers as specified by the manufacturer.

The ridge of the fibre roof shall be covered with adjustable close-fitting ridge capping fixed in accordance with the manufacturer's instructions, complete with all necessary finials.

b) Aluminium "Longspan"

Aluminium "Longspan" roofing shall be carefully laid and fixed in accordance with the manufacturer's instructions, with side laps of one corrugation and 300mm end laps. Sheets shall be carefully drilled for, and secured to wood purlins, with 90 mm aluminium drive screws, or secured to steel purlins with aluminium hook bolts, each with one aluminium alloy diamond shaped washer and round bituminous felt washer. Laps at ends and edges of sheets shall be sealed with an approved non-hardening mastic compound, and edges of sheets shall be bolted together at centres not exceeding 300 mm with 20 mm type "A" aluminium alloy, self-tapping screws with neoprene washers.

c) Galvanised iron

Corrugated galvanized iron sheets shall be lapped one and a half corrugations at sides, with end laps not less than 150mm. Sheets shall be secured to wood purlins with galvanized iron screws and galvanized iron and lead washers. No iron affected by sea water or otherwise damaged shall be used on the Works. Ridges and hips shall be fixed with 150 mm end laps, and edges shall be closely beaten into the corrugations of roofing iron, and fixed with galvanized iron screws and galvanized iron and lead washers spaced not more than 300 mm apart.

Galvanized deep-fluted sheets shall be carefully laid and fixed in accordance with the manufacturer's instructions with side laps of one corrugation and 300 mm end laps, with ends of sheets bent up or down as required. Sheets shall be carefully drilled for, and secured to wood purlins with, galvanized drive screws, or secured to steel purlins with galvanized hook bolts, each with one galvanized steel and flat bitumen washers. Laps at ends or edges shall be primed with one coat approved self etching primer and sealed with bitumen strips, size 30 mm wide x 3 mm thick, and carefully drilled for, and secured with, self tapping screws or 6mm galvanized bolts with bitumen washers.

d) Cement tile

Cement tile roofing shall be fixed in accordance with the manufacturer's instructions and generally as specified in SANS Code of Practice No 10062

e) FC Fascias and barge boards

Fibre cement fascia and barge boards shall be carefully drilled for, and screwed to roof timbers with, 40 x 12 gauge brass cup headed screws and washers, and shall be painted with two coats of acrylic paint.

7 IRONMONGER AND SMITH

7.1 Materials

7.1.1 Ironmongery

Ironmongery shall be of the strongest manufacture and best finish. "Bakelite" or similar plastic furniture will not be accepted. Unless scheduled as prime cost items, samples of each item of iron monger shall be submitted for approval before any particular item is ordered and fixed.

Barrel bolts shall be 150 mm. Hinges for internal and inward opening doors shall be 100 mm loose pin brass or steel butts depending on the material which they are to be fixed. Hinges for outward opening external timber doors shall be "Parliament" or projection type fixed with 50 x 12 gauge brass screws. All external doors shall be fitted with one and a half pairs of hinges.

Brass screws shall be used for fixing ironmongery to hardwood. Unless otherwise specified, screws shall be of metal similar to the article to be fixed in the case of metal frames, doors or windows.

Locks for external doors shall be fully rebated heavy quality, 4 lever mortice with bronze or chromium plated furniture. All locks shall be provided with two keys, and all locks shall differ so that the key of any lock will open no lock other than the one to which it belongs.

All outward opening doors shall be fitted with eyes and corresponding 100 mm brass hooks shall be fitted to the walls for holding the doors open. A suitable stop shall be fitted to prevent the door knob from damage against walls.

All Z-type doors shall be fitted with brass handles and black japanned rimlock with 2 keys. They shall be fitted with 2/250 mm mild steel Tee hinges.

All internal doors shall be fitted with 2-lever mortice locks complete with bronze or chromium plated furniture and locking plates as scheduled.

7.1.2 Steel windows and doorframes

Windows shall be constructed of suitable approved malleable mild steel and of approved medium universal profile. They shall be provided with adequate lugs for fixing to brickwork and be complete with all fittings. They shall comply with the requirements of SANS 727 for Steel windows and Steel doors

Steel doorframes shall be of approved profile manufactures from annealed mild steel 1,60 mm in the case of single rebated or 1,25 mm in the case of double rebated frames complying with SANS 727. The whole frame shall be welded into a rigid unit. The specified number of 100 mm loose pin steel hinges for the type of door to be hung shall be welded on to each frame. Frames shall also be fitted with an adjustable plate with mortar guard suitable for mortice lock.

Steel windows and doorframes shall be hot dip galvanized in accordance with SANS 121, with a minimum thickness of zinc coating of 55 micrometre, treated with a metal etch primer complying with SANS 723 and painted with one coat of zinc chromate primer complying with SANS 679 type I at the factory. If any galvanized sections are subsequently welded or damaged in any manner, damage to the galvanizing shall be made good by sand blasting followed by application of zinc coating or otherwise repaired as directed by the Engineer.

7.2 Construction

7.2.1 Ironmongery

All ironmongery shall be cleaned, oiled and eased until it operates perfectly, after it has been fixed in the work.

7.2.2 Windows and door frames

Before building in, any damage to the shop primer shall be made good by painting with zinc chromate primer.

Windows and doorframes shall wherever possible be built into walls during construction and the lugs well secured. They shall be securely strutted to prevent distortion while the brickwork is being built.

After completion and before plastering, the space between the frames and brickwork shall be carefully and thoroughly filled with 3:1 cement mortar and the external joints raked out to depth of at least 10mm and caulked with a mastic cement forced into the joints.

Steel windows and doorframes, after glazing shall receive two coats of oil paint to selected colours, after any damage to the zinc chromate primer has been made good.

8 PLASTERER, PAVIOR AND TILER**8.1 Materials****8.1.1 Plaster**

Plaster for walls shall be prepared by mixing one part lime to five parts dry sand. Immediately before use one part cement shall be thoroughly mixed with twelve parts above lime/sand mix.

Plaster fro rendering to concrete surfaces, beams and manholes shall be composed of one part cement to three parts sand.

8.1.2 Screeds

Screeds shall be composed of 3:1 sand/cement mortar.

8.1.3 Granolithic

Granolithic floors shall be made from :

- Cement 1 part
- Sand 1,25 parts
- Coarse aggregate 2 parts

The coarse aggregate shall consist of granite or other approved chippings which shall pass a 10 mm sieve and be retained on a 5 mm sieve

8.1.4 Terrazzo

Where terrazzo is ordered, unless otherwise specified, it shall be composed of granular chippings of South African marble with other aggregates and glass chippings added as required, mixed with water-repellent cement in the proportion of 1 part cement to 2 parts of the mixed aggregate, and water added to make a plastic mixture.

The aggregate shall be of such granules and colour, and the cement shall be white or tinted, as required, to produce a finished face similar in texture and colour to sample submitted to and approved by the Engineer, before the work is put in hand.

8.1.5 Floor tiles

PVC floor tiles shall comply in all respects with SANS 786 and SANS 581. They shall have thickness of not less than 2,24 mm and shall be laid on a cement screed using a rubber base adhesive emulsion in accordance with the manufacture's instructions. Concave skirtings shall be the same thickness, 40 mm radius and 100 mm high.

8.1.6 Glazed wall tiles

Glazed wall tiles shall be best quality of approved manufacture, comply with SANS 22 and be 4,75 mm thick, true and regular in shape and free from cracks and all other defects. All arrises shall be cushion edged.

8.1.7 Rainwater and surface water channels

Channels for rainwater and surface water drainage shall be 150 mm half round precast concrete units 1,0 m long, complying with SANS 927.

8.2 Construction**8.2.1 Plasterwork**

All brickwork joints shall be raked out to afford a proper key for plaster and all surfaces shall be properly cleaned down and well wetted before any plaster is applied.

When plastering is required on concrete surfaces, these shall be hacked and thoroughly brushed with strong wire brushes to afford a proper key for the plaster. Soffits, beams, etc. shall be rendered in cement plaster as thinly as possible to provide a uniform surface on which cement plaster of a similar composition shall be skimmed.

External plaster shall be finished off with wood floats and internal plaster shall be steel trowelled unless otherwise specified. Plasterwork shall be kept damp until properly set and all finished surfaces shall be protected from injury.

No plaster on walls shall be less than 12 mm or more than 18 mm in thickness unless otherwise specified.

All salient angles and arrises shall be slightly rounded and all internal angles shall be finished perfectly true, square and smooth.

8.2.2 Air bricks

Openings formed for air bricks shall rendered with plaster.

8.2.3 Screeds

Preparatory to the application of the screed, the concrete sub-floor shall be well soaked with water and coated with the thinnest practicable layer of (a) in the case of a concrete surface which is rough enough to ensure a good bond – a grout of neat cement well brushed on, and (b) in the case of a concrete surface which is not rough enough to ensure a good bond – with a slurry composed of one part of cement to two and a half parts of coarse sand vigorously thrown on by means of a trowel or other suitable device. The screed shall be laid before the grout or slurry has set.

The screed shall be well compacted and rammed in with a wooden punner, and finished off level with a wood float or steel trowel as particularly specified, and then left to mature, being protected from damage during this period.

All screeds to receive special floorings shall be laid with surfaces, and cleaned off or washed, to the satisfaction of the specialist executing such flooring.

A screed on which PVC floor tiles are to be laid shall be between 25 and 40 mm thick. It shall be leveled off with a steel trowel, after the initial set has taken place, to smooth surface free of all score marks, grooves and depressions. A 40 mm radius concave skirting 100 mm high shall be formed in the screed against all walls.

8.2.4 Granolithic

The paving shall be not less than 20 mm thick and shall be laid in one operation. The surface shall be divided by V grooves into rectangular panels not exceeding 9 m² in area.

When hard, the finished surface of granolithic floors shall be repeatedly scrubbed with clean water until all discolouration has disappeared. It shall then be damp-cured by covering with sand or hessian and kept damp for at least seven days. Thereafter the granolithic surfaces shall be protected from damage and discolouration, and prior to handing over the Works they shall again be thoroughly washed with clean water.

All skirtings shall be run direct on the brick or concrete surface, and not against plaster of walls, and to the heights shown on drawings or directed by the Engineer. Skirtings shall be coved at floor and angle rounded along top edge and to finish 6 mm past the face of the plaster.

Where tinting is directed, the pigment shall be mixed with cement before the addition of water. Dusting on of colouring will not be permitted.

8.2.5 Terrazzo facings

Where shown on the drawings or ordered by the Engineer, walls or floors shall be surfaced with in situ terrazzo plaster with a scrubbed or polished finish. Such work shall conform to the following: -

The total thickness of terrazzo shall be 18 mm. The surface of which the terrazzo is to be placed shall be wetted and screeded with cement plaster, with the surface scratched over to form a key, and finished with a 10 mm thickness of terrazzo proportioned and mixed as specified in Clause 8.1.4 hereof.

The terrazzo plaster shall be applied to the wall surfaces and trowelled to an even surface. The wall shall be divided into panels of shapes and sizes shown on drawings with dividing strips set into screed whilst still in semi plastic state. The facings shall be scrubbed with a brush to remove the cement and expose the aggregate, or polished, if so specified, after the cement has set.

The terrazzo shall be covered up, protected and washed down on completion. The work shall be carried out by skilled workmen experienced in this class of work.

8.2.6 Glazed wall tiling

Glazed wall tiling shall be fixed in accordance with SANS 10107. The wall tiling shall be fixed to a plumb-true 3:1 cement mortar screed, not less than 12mm thick, which shall be scratched and left to dry.

The tiles shall be thoroughly soaked in water, the edges dipped in grout of White Portland cement and pressed into solid bed 2:1 cement mortar, previously applied to the screed. The joints shall be continuous vertically and horizontally and as thin as possible, any white cement being wiped away and the whole cleaned off on completion.

The tiling shall be complete with all internal angles and rounded edge fittings, and shall be of the best quality executed by competent workmen.

8.2.7 PVC tiles

PVC floor tiles shall be laid in accordance with SANS 070, on straight regular lines, and the finished floor shall have a neat and workmanlike appearance as specified in 8.2.3 hereof.

Before the floor covering is laid, the Contractor shall ensure that the screed has dried out completely and that it is thoroughly cleaned of all dust, grime, oil etc. The tiles shall be stuck down after applying the approved adhesive emulsion to both the screed and the underside of the tiles.

8.2.8 Precast concrete slabs

Precast concrete paving slabs shall be laid on 100 mm thick sand bed compacted to 100% of modified AASHTO maximum density. Joints between slabs shall not exceed 12 mm and shall be filled carefully by washing a weak cement sand mixture into the joints.

8.2.9 Concrete rainwater channels

Precast concrete channels shall be laid at falls from each downpipe as shown on drawings. The ground on which the channels are laid shall be well compacted.

9 PLUMBER

9.1 Materials

9.1.1 Plumbing and drainage

All materials used for plumbing and drainage shall comply with the Standard Building Regulations.

Unless otherwise scheduled, water piping shall be copper, the piping and valves conforming to SANS 460 and SANS 226 respectively.

When galvanized iron piping is scheduled or shown on the drawings, the piping shall conform to BS 1387 Medium Series, and shall have screwed and socketed joints.

Brass bibcocks shall be heavy pattern with polished bodies to the finish scheduled or ordered by the Engineer.

Kitchen sink and bath shall have 40 mm PVC-U traps and waste pipes cleaning eyes fitted to each bend and end trap and complying with SANS 967. Vent pipes shall be 110 mm PVC-U pipes to SANS 967

Fittings for fixing waste and vent pipes to walls shall consist of approved pressed steel holderbats plugged to walls.

Drain pipes and fittings shall comply with SANS 559 for vitrified clay or SANS 791 for PVC-U. Unless otherwise scheduled, sewer and drain connections shall be vitrified clay pipe with rubber ring or factory applied resilient plastic joints.

Where specified, scheduled or shown on the drawings, the following shall apply:

- a) The hot water cylinder shall be a horizontal combination type, bearing the SABS mark, of 90 litres capacity unless otherwise specified, and shall be installed on brackets sufficient to carry the mass of the filled geyser. The Contractor shall allow for all items, excluding the electrical connection, to install the cylinder.
- b) The kitchen sink shall be 1 050 mm long of standard stainless steel single bowl type, bearing the SABS mark, and fitted with grid, plug, chain and screwed union for waste trap and pipe. The whole shall be rigidly supported by metal brackets.

If a hot water system is being installed, two 13 mm brass bibcocks shall be fitted to the sink. If no geyser is being installed, one 13 mm bibcock shall be fitted, with provision made for future hot water bibcock.

9.1.2 Sanitary fittings

Sanitary fittings shall comply with SANS 497 and shall be subject to selection and approval.

When specified, scheduled or shown on the drawings, the following shall apply :

- a) The WC suite shall consist of hard plastic shall consist of hard plastic low level cistern with metal flushing mechanism of 11 litres capacity and vitreous china WC bowl, with plastic flush pipe and hinged plastic seat flap and cover.
- b) The bath shall be of cast iron, white enameled with square top build-in type complete with cast iron feet, 32 mm overflow and 40 mm outlet connection. Bibcocks shall be fitted as for kitchen sink.

9.1.3 Rainwater goods

Unless otherwise stated or approved, rainwater goods shall be of fibre cement, of "Everite" or equal manufacture.

9.2 Construction

9.2.1 Plumbing, drainage and sanitary work

All workmanship and methods used for the installation of plumbing, drains and sanitary work shall comply with chapter 12 of the Standard Building Regulations except that the local Building Regulations having the force of law shall take precedence where conflict exists.

The work will be subject to approval by the Local Authority's Inspectors, if any and by the Engineer. The Contractor's attention is drawn to the need to employ registered drainlayers and plumbers who are fully conversant with local regulations and codes of practice for this portion of the Works, to ensure that the Local Authority's Inspectors accept the work when finished.

9.2.2 Rainwater goods

Fibre cement rainwater goods shall be free from cracks, twists or other defects, with walls of uniform thickness, straight and smooth inside and out and truly circular in section. Gutters shall be accurately fixed, closely fitted together, jointed with tarred rope gasket and approved jointing compound, and bolted. Rainwater pipes shall be closely fitted together, jointed with tarred rope gasket and approved jointing compound, and grouted with 3:1 sand/cement fillets.

10 GLAZIER AND PAINTER**10.1 Materials****10.1.1 Glazing**

Unless otherwise stated, windows up to 300 mm maximum dimension shall be glazed with 7,32 kg/m² (9,76 kg/m² up to 500 mm maximum dimension) clear glass of the best quality of its kind, free from bubbles, waves, air holes, scratches or other defects and conforming to BS 952 "Ordinary Glazing quality". Obscure figured and texture glass shall be the best respective kinds described and approved. Obscure glass shall be used at windows to showers and toilets.

Possible plate glass, if specified, shall be "Glazing for Glazing" quality, conforming to BS 952.

10.1.2 Paints, stains, etc.

All paints and stains, etc, or materials used in their preparation, shall be of the best quality of their respective kinds and shall comply with the relevant SANS specification. The paints and stains, etc, their colours and shades, shall be approved as to brand and manufacture, and the Contractor shall submit samples in their respective colours to the Engineer, for Approval, when called upon to do so.

Floor stain shall be composed of turkey Umber with a small quantity of burnt sienna mixed to the proper consistency with raw oil, with sufficient quantity of terebene to ensure proper drying.

Fast limewash shall be composed of fresh unslaked lime with 7 kg of salt and 5 kg of tallow, or equal mass of boiled linseed oil, added for every 50 kg of lime, well mixed with the lime while slaking. The mixture shall be passed through a sieve. A sufficient quantity of yellow ochre is to be added to bring to light cream shade of approval.

10.2 Materials**10.2.1 Glazing**

Glass shall be cut to fit the rebates with due allowance for expansion, and shall be carefully bedded in putty, pegged or clipped in position, puttied evenly to a uniform level neatly finished, all in accordance with SANS 680.

10.2.2 Painting

Before any paintwork is put in hand, surfaces shall be made good after all other trades and the Contractor shall inspect and satisfy himself that all surfaces of plaster, wood, metal, etc., which are to receive finishes of paint, stain, distemper, oil, etc or paintwork of any description, are in a proper condition to allow of first class painting finishes being obtained from them. All surfaces shall be filled with suitable stopping where necessary, rubbed down, perfectly clean, free from dust, dirt, grease, etc. before any painting etc., is undertaken. No painting or distemping shall be undertaken on plastered wall or ceiling surfaces until in the opinion of the Engineer they have thoroughly dried out and are in a fit state to receive a finish. All rooms and corridors etc., shall be swept clean before the painting is commenced, and no sweeping or dusting shall be done whilst painting or distemping is in progress.

Each coat of paint shall be a distinctive colour. Sample colours are to be prepared in all cases for the final coat. Every coat of paint, etc., shall be a good thick covering coat, and, if not, the Contractor will be required to apply extra coats at his own expense.

Walls behind baths and sinks to a height of 1,8 m or as shown on the drawing shall be painted with one coat alkaline resistant primer and one coat gloss oil paint.

New wrot woodwork specified to be painted (including the backs of wood frames etc.) shall be primed with white and red lead priming paint. Knots shall be knotted with shellac knotting before priming. Where special brands of patent paints are to be used, the manufacturer's priming, suitable for the particular brand employed, shall be used in accordance with the manufacturer's instructions.

New wood work shall be properly sandpapered and rubbed down to a smooth even surface before painting or staining and before each successive coat is applied. Stopping is to be tinted as required to match oiled or stained woodwork.

Existing woodwork previously painted shall be properly rubbed down and sandpapered to approval, or the existing paint removed if required. Running knots shall be cleaned off and coated with shellac knotting.

Where new galvanized iron surfaces are specified to be 'oxidised' before being painted, they shall be prepared with a 10% solution of copper sulphate in water, and the galvanized surfaces shall be washed with the solution. The black deposit formed almost immediately shall be thoroughly washed off whilst still wet with clean cold water, and the surfaces allowed to dry. Other approved patent oxidizing solutions if approved may be used to render new galvanized surfaces fit for painting, provided these are applied strictly in accordance with manufacturer instructions.

Hardwoods shall be given two coats raw refined linseed oil well rubbed in. Fibre cement shall be painted with two coats of acrylic paint.

Exposed timber, unless painted or oiled, shall be given two coats of carbolineum preservative or equivalent.

Steel and iron surfaces, including those bedded in concrete, shall be painted as specified in the Specification Section dealing with structural steelwork.

Cast iron work shall be delivered to site without painted or coated surfaces. After erection, the cast iron shall be washed, using a detergent and nylon brushes to remove all rust and foreign matter. All traces of detergent shall then be washed off. As soon as the surface is dry it shall be painted two coats of 60% red lead primer, and then two coats of approved bituminous paint. No cast iron which is to be painted shall be previously dipped in tar or bitumen solution. Under no circumstances may wire brushes be used for removing rust and other contaminants.

The whole of the paintwork shall be touched up and made good on completion, and all paint spots and stains removed from floors, glass, etc. and all left perfect. All glass shall be thoroughly cleaned, all floors washed and the work left in a clean and properly finished condition.

11 ELECTRICIAN

11.1 General

The Contractor shall provide electrical wiring, internal and external lighting and fittings as shown on the drawings, shall undertake to relevant electrical work in accordance with SANS 10142-1, the Code of Practice for Wiring of Premises, and on completion, shall submit to the Engineer a certificate obtained from the relevant authority stating that electrical work complies with its requirements and regulations.

12 MISCELLANEOUS TRADES, FIXTURES AND APPLIANCES

See Project Specification

13 MEASUREMENT AND PAYMENT

13.1 General

Unless the building is measured by the sum in terms of Subclause 13.13 hereof the relevant Subclauses 13.2 to 13.12 shall apply

13.2 Drainlayer

The measurement and payment clauses of the specifications dealing with sewers, stormwater, manholes and catchpits, and bedding as applicable, shall apply.

13.3 Excavator

In addition to the measurement and payment clauses of the Specifications dealing with general excavation and trench excavation, the following shall apply.

13.3.1 Hardcore

Hardcore filling will be measured by area of volume as scheduled. The unit rate will be held to include for the provision, placing and compacting of hardcore filling including filling of voids as necessary.

13.4 Concretor**13.4.1 Prestressed lintels**

Prestressed lintels will be measured as the net area after all door, window and similar major openings have been deducted.

13.5 Bricklayer**13.5.1 Brickwork**

Brickwork will be measured as the net area after all door, window and similar major openings have been deducted.

The unit rates will be held to include for the supply of all materials, cutting and waste, building in of timber, brick lintels, wall tiles, etc., plumbing openings and angles, forming all openings and reveals, struck jointing and all other labours, not separately scheduled. The cost of building in of windows, door frames etc. will be held to have been included in the unit rates tendered for those items.

13.5.2 Sills

External and internal sills will each be measured separately and linear. The unit rates will be held to include for the supply of all materials and for all labours, cutting, waste, jointing, reinforcement, damp proofing of sills where shown on drawings, and cleaning on completion.

13.5.3 Damp proof course

Damp proof course for walls will be measured linear as the net length of wall proofed, and under floors the damp proof course will be measured as the net area of floor covered. The unit rates will be held to include for the supply and laying of all material, cutting, waste, laps and bitumen sealing where required.

13.5.4 Air bricks

Air bricks will be measured by sets comprising inside and outside, complete with copper gauze and reveals. The unit rate will be held to include for the supply and fixing of the complete set.

13.5.5 Bagging

Bagging will be measured by area. The unit rate will be held to include for all material and labour required to carry out the work.

13.5.6 Brick reinforcing

Where scheduled, brick reinforcing will be measured linear. The unit rate will be held to include for the supply, cutting waste, installation and tools.

13.6 Carpenter and joiner**13.6.1 Timbers**

Timbers will be measured linear. The unit rate will be held to include for cutting, scarfing, laps, waste and for nails and spikes. The unit rate for roof trusses, where these are scheduled by number, will be held to include for the supply, manufacture and erection of the trusses including for all necessary 'beam filling' between the top of the wall and underside of the roof.

13.6.2 Joinery

Joinery items will be measured by number. The rate will be held to include for the supply of all materials, manufacture of the items and for all fixing and painting or oiling as specified.

13.6.3 Doors

Doors will be measured by the number of complete units. The unit rate will be held to include for the supply, fixing and sealing of the door and frame (timber or steel, as specified) complete with GI strips, lugs and damp proofing where shown on drawings or as required, furniture, glazing and painting or oiling (See also Subclauses 13.5.1 and 13.10 hereof).

13.6.4 Timber windows

Timber windows will be measured by the number. The unit rates will be held to include for the supply and fixing complete including in all ironmongery, lugs, glazing and painting or oiling and sealing with mortar and/or damp proof course or GI strips as applicable. (See also Subclause 13.10 hereof)

13.6.5 Ceilings

Ceilings will be measured by area and the cornice will be measured linear. The unit rates for ceilings and cornices will be held to include for the supply of all materials and labour including brandering, fixing, cutting, waste, nails and all fixings and for trimming and forming one trapdoor 600 x 600 mm in each building.

13.6.6 Roofing

Roofing will be measured as the net area covered measured on the slope, if any. The unit rate will be held to include for all laps, cutting, waste and fixing, and flashings and sealing materials to complete the roof to a weatherproof condition.

13.6.7 Fascias

Fascia and barge boards will be measured linear. The unit rate will be held to include for the supply of all materials and for all cutting, waste, brackets, fixing, painting and for all screws, bolts and the like.

13.6.8 Skirtings

Skirtings will be measured linear. The unit rate will be held to include for the supply of all materials and for all cutting, waste, brackets, fixing, painting, and for all screws, bolts and the like.

13.7 Ironmonger**13.7.1 Ironmongery**

Ironmongery will not be measured or paid as, separate items unless the Schedule of Quantities includes specific prime cost or other items therefor.

13.7.1 Steel windows

Steel windows will be measured by number. The unit rate tendered will be held to include for the supply and fixing complete including all ironmongery, glazing and painting. (See also Subclause 13.10 hereof.)

13.8 Plasterer, Pavior and Tiler**13.8.1 Plaster**

Plaster work will be measured separately net area plastered, including reveals, lintels and similar areas, and no deduction will be made for door frames or window frames, airbricks and the like. Internal and external plaster will be measured separately. Separate items will be provided for plastering on brickwork, on concrete and on manholes.

13.8.2 Screeds and granolithic

Screeds and granolithic will be measured separately by area of floor surface covered and formed skirtings will be measured linear. The unit rates will be held to include for the provision of all materials, compacting and leveling, forming of screeds and concave skirtings, waste laying, jointing, cleaning and everything necessary to complete the work. The same principles will apply to floors specified to be stained.

13.8.3 Terrazzo facing

Terrazzo facings will be measured by area of the surface treated. The unit rate will be held to include for the supply, mixing, laing and polishing or scrubbing complete with rebates, coves and edges.

13.8.4 Tiling

Tiling will be measured by area of completed tile surface. The unit rate will be held to include for the supply of all materials complete with internal angles, rounded edge fittings and specials, and forming screeds.

13.9 Plumber**13.9.1 Rainwater goods**

Gutters and down pipes will be measured linear and drop ends, swan necks, shoes, etc. will be measured by number. The unit rates will be held to include for the supply of all materials and for all fixing, jointing, cutting and waste, screws, brackets, holder bats and other fixings.

13.9.2 Drainage

Plumbing and drainage are scheduled as "lump sum" or as Prime Cost items. The amounts tendered for these items will be held to include for the supply of all materials and labour for the complete installation of the relevant facilities in accordance with Subclauses 9.1.1, 9.1.2 and 9.2.1 hereof from the service connections on the mains, excluding only the individual units of sanitary ware are scheduled separately. (See Subclause 13.9.3 hereof.)

13.9.3 Sanitation

Sanitary ware items will be measured by number or as a Provisional sums as scheduled.

The unit rate for scheduled items will be held to include for the supply and installation, including all fixings.

Provisional sums will be held to include for the cost of purchase and delivery of the relevant items in terms of Clause 48 of the General Conditions of Contract (GCC) as amended by the Special Conditions. Any additional amount added to the Schedule by the Contractor will be held to include for all costs of selection, installation, commissioning and maintenance in terms of the GCC.

13.10 Glazier and painter**13.10.1 Painting**

Painting etc. will be measured and paid on walls and ceilings only. The area measured will be the net

13.10.2 Glazing

The cost of glazing will be held to have been included in the tendered rate for the items such as windows, doors, etc., that require glazing.

13.11 Electrician

Electrical items will be measured by number, or will be scheduled as "lump" sum or as "Prime Cost" items.

The unit rates or "lump" sum will be held to include for all labour and material to complete the installation as specified.

13.12 Miscellaneous trades, fixtures and appliances

See project Specification.

13.13 Payment for complete building

13.13.1 Lump sum

Where specified or scheduled, buildings will be measured and paid by the sum or unit rate per each type of building. The tendered sum or unit rate shall cover the cost of the supply of all necessary materials and the construction of the building complete as specified and shown on the drawings, assuming the building to be on level ground with the top of the floor slab 225 mm above ground level and the top of the concrete foundation 150 mm below ground level and including :

- i) the compacted fill under floors,
- ii) final clearing up of the site
- iii) all plumbing, including trench excavation and backfilling, two vertical elbows, 10 m of 20 mm diameter polyethylene leading from the house to the end of the existing house water leading in the vicinity of the front cadastral boundary, the supply and complete construction of the meter/stopcock assembly and chamber and final connection to the existing house water leading.
- iv) Drain laying including trench excavation and backfilling, two vertical 45 deg bends at the base of the stack, two horizontal 45 deg bends, 10 m of 110mm diameter PVC-U pipe and the final connection to the existing end cap in the vicinity of the sewer main.

Furthermore, on sloping sites, the sum or unit rate for each house shall cover the costs of any additional vertical length of piping and drain laying required as a result of the height of foundation walls exceeding minimum dimensions for level sites, and of providing steps in the foundations.

13.13.2 Variations in Quantities

- i) Any addition to or reduction from the standard horizontal length of 10 m of polyethylene water leading required will be measured and payment will be adjusted separately.
- ii) Any addition to or reduction from the standard horizontal length of 10 m of PVC-U drain piping or the number of bends required will be measured and payment will be adjusted separately.
- iii) Where sloping sites require additional work below floor level, the following items of additional work will be measured as scheduled :
 - a) Excavation to footingsm³
 - b) Footing walls, area in elevation of each
Wall thickness measured separatelym²
 - c) Fillingm³
 - d) Steps; sets of two, three or more steps
Will be measured separately as setsm²

In all cases only the extra quantities required as a result of sloping site will be measured.

The rates for these items will include for supply of all extra materials, labour, tools, plant, etc. required to bring the work below floor level to the specified levels over and above that required for a level site.

13.13.3 Interim stages

For the purpose of interim payments for building units successive stages of completion will be deemed to have the following proportional values :

- i) Completion of foundation5%
- ii) Completion to window sill height including

	Building-in of windows and door frames	20%
iii)	Completion of roof.....	40%
iv)	Completion of plasterwork, floors and ceilings.....	60%
v)	Completion of doors and plumbing	85%
vi)	Completion of glazing and painting	95%
vii)	On handing over	100%.

Note : The above will be subject to the normal retention in terms of the General Conditions of Contract.

PROJECT PARTICULAR SPECIFICATIONS

PPS 1 PREFABRICATED STEEL RESERVOIRS

PPS 1.1 TYPE OF TANK

PPS 1.1.1 Circular, bolted, roofed high tensile steel panel tank with multi-layer woven scrim base liner.

PPS 1.2 DIMENSIONS OF TANK

PPS 1.2.1 The tank diameter shall be 7.51m.

PPS 1.2.2 The minimum nominal wall height shall be 2.14m.

PPS 1.2.3 The roof structure shall be domed with a centre height not less than 200mm above the tank wall and the roof sheets shall overhang the tank walls by 100mm nominally, unless otherwise specified by the procuring authority.

PPS 1.3 MATERIALS

PPS 1.3.1 Panels shall be fabricated from high tensile, G300 Zinalume® steel sheets or sheet laminates from steel sheet conforming to SANS 9364.

PPS 1.3.2 Roof Trusses, ladders, and other steel components shall, where applicable, be of carbon steel that complies with the relevant requirements of SANS 1431. Fabricated items, without exception will be hot dipped galvanized in accordance with SANS121:2011 after fabrication, no items will be welded on site. When specified, stainless steel items such as ladders and tank connectors shall be fabricated in accordance with SANS 10162-4. All mild steel pipe fittings to be hot dipped galvanized.

PPS 1.3.3 The tank liner material shall comprise of multiple layers fabricated from a heavy duty, approved non-toxic food grade material such as PVC, polyethylene, polypropylene or a combination of such materials, and shall have a multi-filament base scrim, of no less than 8 x 8 threads per cm².

Liners for consideration of use must be factory fabricated, and welded by means of an RF welding or hot air/wedge welding process. The operational temperature range of the liner should be -30°C to +70°C.

PPS 1.3.4 Steel sheeting used for roofs shall be fabricated from high tensile steel sheets conforming to SANS 9364, profiled to an approved profile, and with a minimum thickness of 0.47mm.

PPS 1.4 COMPONENTS

PPS 1.4.1 Panels

- PPS 1.4.1.1 The nominal size of each panel shall be 2 250 mm × 1 191 mm of a thickness to comply with the requirements of 1.3.1.
- PPS 1.4.1.2 The panels shall be profiled to an approved profile, and shall be factory pre-curved by the manufacturer for each reservoir model /size.
- PPS 1.4.1.3 The profiling of the panels shall be such as to comply with deflection limits. (In other words, bulging shall not cause the material to stretch beyond its elastic limit/ yield).
- PPS 1.4.1.4 The steel grade shall be G300 AZ150 minimum with single panel thickness not less than 0.8mm. The panels shall be designed and tested to withstand all anticipated applied loadings including wind and earthquake in conjunction with the associated vertical stiffeners. Vertical stiffeners (windgirts) will be of minimum 2.4mm galvanized material and formed into a suitably engineered profile to withstand bending. Panels shall be increased in thickness and/or laminated to provide the sufficient strength to cater for hydrostatic pressure increases proportional to tank height increases in nominal 1.1m steps to the maximum tank height of 9.39m.
- PPS 1.4.1.5 The minimum wind speed and earthquake loadings must comply with SANS 10160. The minimum design wind speed shall be 40m/s
- PPS 1.4.1.6 External tank pipework shall be installed so as not to impose additional loading on the tank. If inlets or outlets greater than 150NB are required by the engineer, either the panel thickness must be increased and/or extra panels must be laminated at that position to safely support the connector.
- PPS 1.4.1.7 Panels must be overlapped in both the horizontal and vertical planes.
- PPS 1.4.1.8 The vertical panel edge overlap shall be sufficient so as to include 2 rows of bolt holes. These bolt holes must be spaced a maximum of 60mm apart in the vertical plane, and no more than 45mm apart in the horizontal plane.
- PPS 1.4.1.9 A galvanised strengthening rib (wind gird) shall be used at the vertical panel edge joints and bolted as an integrated part to the panel overlap using the same bolts utilised for joining the panels.
- PPS 1.4.1.10 The tank design shall be such that the vertical strengthening rib from the panel immediately above shall overlap the lower panel and form part of the lower panels bolted panel join. The overlap section must be no less than 180mm and must 'join' with no less than 6 bolts being common to both vertical strengtheners/windgirts

PPS 1.4.1.11 Panels shall be joined to the panel above in the horizontal plane by means of an continuous panel overlap of at least 115mm, and shall be bolted together at a minimum of 5 equispaced points along this overlap.

PPS 1.4.1.12 The panel bolt holes shall be of a diameter at least 1.5 mm larger than the nominal bolt size.

PPS 1.4.1.13 The vertical joint bolt sizes must be proportional to the height and model of the tank and must be equal to the bolts used on the corresponding vertical stiffener joints

PPS 1.4.1.14 All bolts used in the tank wall panel construction shall be grade 8.8, hot dipped galvanized with serrated face flanged head nuts to match. All fastners must be of traceable origin with test certificates to support chemical composition and grade

PPS 1.4.2 Roof trusses

PPS 1.4.2.1 The roof trusses and/or truss sections shall be fabricated from hot rolled first class weldable steel square tube or angle iron. SHS will be of minimum grade / type S355. All joints shall be welded and the completed truss shall be hot dipped galvanised 150g/m² to SANS 121 (ISO 1461) after fabrication. Trusses fabricated from sheet metal which is folded and then riveted or screwed or bolted together to form a truss member will not be acceptable.

PPS 1.4.2.2 Where bridges and/or bracing between truss members are used, these items shall be bolted to the main truss members at both ends and at all intersecting points.

PPS 1.4.2.3 Truss to wall attachment plates shall be of a fixed mating angle type allowing for correct and accurate alignment of trusses. At point of attachment the truss must be bolted to the reservoir body with a minimum of four grade 8.8 M10 bolts. The truss attachment should also have a strengthening plate bolted to it externally measuring no less than 200mm x 70mm

PPS 1.4.2.4 Loading of the roof shall be provided for by suitable structural design and shall comply with the relevant requirements of SANS 10160. The roof shall be designed to prevent the accumulation (or ponding) of water on its surface.

PPS 1.4.2.5 Steel used in the truss manufacture shall have a minimum yield strength of 355MPa.

PPS 1.4.2.6 All bolts used in the truss assembly shall be grade 8.8 with nuts and washers to match.

PPS 1.4.3 Top and Bottom Hoops

PPS 1.4.3.1 The tank shall be provided with strengthening hoops at the upper outer edge of the top panel and lower outer edge of the bottom panel. These hoops shall be fabricated from steel rectangular tube, pre-curved to suit the reservoir diameter and hot dipped galvanised 150g/m² to SANS 121 after fabrication.

PPS 1.4.3.2 The hoop sections shall be joined together with galvanised joiners inserted into the hoop sections. There shall be a minimum of 100mm overlap in two adjacent sections and the joiners

shall be securely fixed to the respective hoop sections.

PPS 1.4.3.3 These hoops must be securely fixed to the top and bottom of the reservoir.

PPS 1.4.4 Tank Hold-Down Brackets

PPS 1.4.4.1 The tank shall be secured to an engineer designed and approved steel reinforced concrete ring beam or slab base by means of original manufacturers equipment suitable steel hold down brackets. These brackets shall be designed taking into account all anticipated loadings on the tank.

PPS 1.4.4.2 The hold down brackets shall be bolted to the tank wall at the panel joins at the base of the tank by no less than 6 x M12, 8.8 grade HDG bolts and nuts, and provision shall be made to allow for fixing to the concrete base by means of suitably approved sleeve anchors / expansion bolts.

PPS 1.4.4.3 For tanks of different sizes there should be a range of different sized brackets used to ensure proportional loading through the brackets in accordance with the tank model.

PPS 1.4.4.4 Provision shall be made in the bracket design to allow for expansion and contraction of the tank.

PPS 1.4.5 Liner

- PPS 1.4.5.1 The liner shall be comprised of multiple layers fabricated from a heavy duty, approved non-toxic food grade material such as PVC, polyethylene, polypropylene or a combination of such.
- PPS 1.4.5.2 The liner material must be internationally certified by a recognised authority or testing body for use in contact with drinking water. All liners must be 'supported' by way of an internal central layer / scrim. No unsupported liners will be acceptable.
- PPS 1.4.5.3 The liners shall be factory fabricated in a controlled environment with all seams homogenously welded by means of an RF or hot air/wedge welding process under controlled conditions to form a watertight seal.
- PPS 1.4.5.4 Suitable stiffening shall be provided around the top perimeter of the liner to provide an adequate base for the fastening of the liner to the tank wall.
- PPS 1.4.5.5 Reinforced attachment straps fabricated from the same material as the liner shall be welded at suitable intervals to the outer face of the liner complete with eye-lets to allow fastening to the panel joint bolts.
- PPS 1.4.5.6 If required by the procuring body, the liner material must demonstrate that the seams will not leak or permanently deform by undergoing a flume test using a tube made up of the relevant liner material and with a standard welded seam along its length. The sample must withstand a constant pressure of 3 bar for 30 minutes without evidence of leaks/weeping or permanent deformation.
- PPS 1.4.5.7 The completed liner must be provided with a non-leak guarantee backed by the manufacturer for a minimum of ten years.
- PPS 1.4.5.8 The liner material must be capable of being easily repaired on site in the event of damage.

PPS 1.4.6 General

- PPS1.1.6.1 All tanks must be supported by a Certificate issued by a Professional Engineer to the effect that the tanks are structurally stable and satisfactory for use under the conditions listed in the Certificate.

C3.5.18 ADDITIONAL SPECIFICATIONS

ANNEXURE A

Health & Safety Specification

1. PREAMBLE

In terms of Construction Regulation 5(1)(a)(b) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), Department of Public Works, as the Client and/or its Agent on its behalf, shall be responsible to prepare Health & Safety Specifications for any intended construction project and provide any Principal Contractor who is making a bid or appointed to perform construction work for the Client and/or its Agent on its behalf with the same.

The Client's further duties are as described in The Act and the Regulations made there-under. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 5 as well as the Health and Safety Plan for the project.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognisance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall set up a Risk Assessment Program to identify and determine the scope and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. *This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan.* The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

In this a high premium is to be placed on the health and safety of the most valuable assets of the Client. These are its personnel, the personnel of its Clients and the physical assets of which it is the custodian and may also include the public as well. The responsibilities the Client and relevant stakeholders have toward its employees and other people present in the facilities or on the sites are captured further in this specification document. These responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal

Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Agent and/or Client.

2. PURPOSE

Client is obligated to implement measures to ensure the health and safety of all people and the community affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications. *(All references to the singular shall also be regarded as references to the plural)*

The purpose of this specification document is to provide the relevant Principal Contractor (and his /her contractor) with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for the Client. The Principal Contractor (and his /her contractor/s) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) Submissions on health and safety documentation required from the Principal Contractor (and his /her contractor); and
- d) The Principal Contractor's (and his /her contractor) health & safety plan.

To serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations promulgated on February 2014 and incorporated into the above Act by Government Notice R 1010, published in Government Gazette 25207 shall apply to any person involved in construction work pertaining to this project, as will the Act.

3. DEFINITIONS - The most important definitions in the Act and Regulations pertaining to this specification document are hereby extracted.

“Purpose of the Act” –

To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

“Agent” –

means any person who acts as a representative for a client; “Client” –

means any person for whom construction work is performed;

“Construction Work” is defined as any work in connection with –

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) 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

- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

“Contractor” –

means an employer, as defined in Section 1 of the Act, who performs construction work and includes Principal Contractors;

“Health and Safety File” –

means a file, or other record in permanent form, containing the information required a contemplated in the regulations;

“Health and Safety Plan” –

means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified;

“Health and Safety Specification” –

means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons;

“Method Statement” –

means 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” –

means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site;

“Risk Assessment” –

means a program to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

4. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

5.1 Structure and Organization of OH&S Responsibilities

5.1.1. Overall Supervision and Responsibility for OH&S

- * The Client and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 5, implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.
- * The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act. The pro forma Legal Compliance Audit may be used for this purpose by the Principal Contractor or his/her appointed contractor.
- * All OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that

the reports are made available to the principal Contractor to become part of site records (Health & Safety File).

- * The Construction Manager and Construction Supervisor/s appointed in terms of Construction Regulation 8 (1) to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- * All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.

5.1.2. Further (Specific) Supervision Responsibilities for OH&S

Several appointments or designations of responsible and /or competent people in specific areas of construction work are required by the Act and Regulations. The following competent appointments, where applicable, in terms of the Construction Regulations are required to ensure compliance to the Act, Regulations and Safety Standards.

Required appointments as per the Construction Regulations:-

Item	Regulation	Appointment	Responsible Person
1.	5	Principal contractor for each phase or project	Client
2.	5.	Contractor	Principal Contractor
3.	5	Contractor	Contractor
4.	8(1)	Construction manager	Contractor
5.	8(2)	Construction manager sub-ordinates	Contractor
6.	8(6)	Construction Safety Officer	Contractor
7.	9(1)	Person to carry out risk assessment	Contractor
8.	9(4)	Trainer/Instructor	Contractor
9.	28 (a)	Stacking and storage supervisor	Contractor
10.	29 (h)	Fire equipment inspector	Contractor
11.	3(4)	First Aider with valid Certificate	Contractor
12.	10 (1)	Fall Protection Plan Developer	Contractor
13	GSR 13(a)	Ladder Supervisor	
14	13(1)	Excavation Supervisor	
15	23 (1)(a-j)	Construction Mobile Plant Operator & Supervisor	

This list may be used as a reference or tool to determine which components of the Act and Regulations would be applicable to a particular site, as was intended under paragraph 3 & 4 of the Chapter “Preamble” (page 4) above. This list must not be assumed to be exclusive or comprehensive.

5.2 Communication & Liaison

- 5.2.1 OH&S Liaison between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the H&S Committee as per the procedures determined by the H&S Committee.
- 5.2.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.

5.2.3 Consultation with the workforce on OH&S matters will be through their Supervisors and H&S Officers ('SHE – Officers')

5.2.4 The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

5. INTERPRETATION

(i) The Occupational Health and Safety Act and all its Regulations, with the exception of the Construction Regulations, distinguish between the roles, responsibilities and functions of employers and employees respectively. It views consultants and contractors as employees of the "owner" of a construction or operational project, the "owner" being regarded as the employer. Only if formally agreed to by way of the written agreement in this regard between the "owner(s)" and consultant and/or between the "owner(s)" and the contractor(s), will these assumptions be relinquished in favour of the position agreed upon between the relevant parties.

(ii) The position taken by the Construction Regulations is that the "owner", in terms of its instructions, operates (has to operate) in the role of client as per relevant definition. The contractors working for the "client" are seen to be in two categories, i.e. the Principal Contractor and Contractors. The Principal Contractor has to take full responsibility for the health and safety on the site of the relevant project / contract. This includes monitoring health and safety conditions and overseeing administrative measures required by the Construction Regulations from all contractors on the project site. (Ordinary / sub) Contractors are required to operate under the scrutiny and control (in terms of all health and safety measures which are covered in the Construction Regulations) of the Principal Contractor. Where, for the work the Principal Contractor will have to execute himself, practical health and safety measures are applicable, he will also be subject to the relevant requirements with which (ordinary / sub) Contractors have to comply. The Principal Contractor will, however, not have to actually fulfill such requirements in respect of any of the work / functions of any (ordinary / sub) Contractors on the site for which he has been appointed as Principal Contractor. However, he has to monitor / oversee such processes, ensuring that the requirements are complied with and that the required appointments / evaluations / inspections / assessments and tests are done and that the records are duly generated and kept as prescribed in the Construction Regulations. This has to feature clearly in the Principal Contractor's Health and Safety Plan.

6. RESPONSIBILITIES

7.1 Client

7.1.1 The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations and determined by the Bills of Quantities.

7.1.2 The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.

7.1.3 The Client or his appointed Agent on his behalf will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.

7.1.4 The Client or his appointed Agent on his behalf, will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:

- have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
- have failed to implement or maintain their health and safety plan;
- have executed construction work which is not in accordance with their health and safety plan; or
- act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

7.2 Principal Contractor

7.2.1 The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction work in terms of Regulation 4 of the Construction Regulations.

7.2.2 The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation. This Specification is not intended to supersede the Act nor the Construction Regulations or any part of either. Those sections of the Act and the Construction Regulations which apply to the scope of work to be performed by the Principal Contractor in terms of this contract (entirely or in part) will continue to be legally required of the Principal Contractor to comply with. The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.

7.2.3 The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.

7.2.4 The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.

7.2.5 The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and Construction Regulations. (Note: This shall have to be contained in the conditions of tender upon which a tenderer's offer is based.)

7.2.6 The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.

7.2.7 The Principal Contractor shall ensure that a copy of his health and safety plan is available onsite and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.

7.2.8 The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.

7.2.9 The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.

7.2.10 The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

7.3 **Contractor** (Responsibilities for ensuring safe working environment in terms of this contract and health and safety specification)

As per 7.2 above, as and where applicable or as indicated in the letter of appointment.

N.B Construction Regulation 7 determines that potential contractors submitting tenders have made provision for the cost of health and safety measures during the construction process. The Principal Contractor shall on tendering make provision for the cost of health and safety measures in terms of his/her documented Health and Safety Plan and measures based on these Health and Safety Specifications during the period of the project. The cost shall be duly quantified and clearly identified for such identifiable purpose.

THE HEALTH AND SAFETY STANDARDISED PLAN IS THEREFORE TO BE INCLUDED WITH THE TENDER DOCUMENTS WHEN TENDERS ARE INVITED FOR THE PROJECT.

7. HEALTH AND SAFETY FILE

The Principal Contractor must, in terms of Construction Regulation 7, keep a Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done. A more detailed list of documents and other legal requirements that must be kept in the Health and Safety File is attached as an addendum to this document.

IMPORTANT:

The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

8. OH&S GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEWING OH&S PERFORMANCE

The Principal Contractor is required to maintain an acceptable disabling incident frequency rate (DIFR) and report on this to the Client and/or its Agent on its behalf on a monthly basis.

9. IDENTIFICATION OF HAZARDS AND DEVELOPMENT OF RISK ASSESSMENTS, STANDARD WORKING PROCEDURES (SWP) AND METHOD STATEMENTS

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project.

The identification of hazards is over and above the hazards identification programme and those hazards identified during the drafting of the Health and Safety Plan.

10. ARRANGEMENTS FOR MONITORING AND REVIEW

11.1 Monthly Audits by Health & Safety Specialists

The Client and/or its Agent on its behalf will be conducting Periodic Audits at times agreed with the Principal Contractor to comply with Construction Regulation 5 to ensure that the principal Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan.

11.2 Other audits and inspections by Health and Safety Specialists

The Client and/or its Agent on its behalf reserves the right to conduct any other ad hoc audits and inspections as it and/or its Agent on its behalf deem necessary.

A representative of the Principal Contractor and the relevant Health and Safety Officer (SHE- Officer) must accompany the Client and/or its Agent on its behalf on all Audits and Inspections and may conduct their own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Client and/or its Agent on its behalf may require to be handed a copy of the minutes of the previous Health and Safety Committee meeting reflecting possible recommendations made by that committee to the Employer for reference purposes.

11.3 Reports

11.3.1 The Principal Contractor shall report all incidents where an employee is injured on duty to the extent that he/she:

- * dies
- * becomes unconscious
- * loses a limb or part of a limb
- * is injured or becomes ill to such a degree that he/she 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/she 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 the Provincial Director of the Department of Labour within seven days and at the same time to the Client and/or its Agent on its behalf.

Refer in this regard to Section 24 of the Act & General Administrative Regulation 8.

11.3.2 The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations.

11.3.3 The Principal Contractor is required to provide the Client and/or its Agent on its behalf with a monthly "SHE Risk Management Report".

11.3.4 The Principal Contractor is required to provide a.s.a.p. the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports including the reports contemplated in 11.7, 11.8.2, 15, 16, 17, 21 and 22 below. As soon as the occurrence of any accident/incident of whatever nature comes to the notice of the Principal Contractor, it shall be reported immediately to any of the following:

11.4 Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and Standard Work Processes at each Production Planning and Progress Report meeting as the construction work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client and/or its Agent on its behalf, other Contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in the above paragraph.

11.5 Site Rules and other Restrictions at Nyandeni, Thukela and Luqolweni villages water supply scheme

11.5.1 Site OH&S 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.

11.5.2 Security Arrangements

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees shall at all times be provided with fulltime supervision while on site.

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

If not already tasked to the H&S Officer appointed in terms of Construction Regulation 8(5), the Principal Contractor must appoint a competent Emergency Controller who must develop contingency plans for any emergency that may arise on site as indicated by the risk assessments. These must include a monthly practice/testing programme for the plans e.g. January: trench collapse, February: flooding etc. and practiced/tested with all persons on site at the time, participating.

11.6 Trainings

The contents and syllabus of all training required by the Act and Regulations including any other related or relevant training as required must be included in the Principal Contractor's Health and Safety Plan and Health and Safety File.

11.6.1 General Induction Training

All employees of the Principal and other Contractors must be in possession of proof of General Induction training

11.6.2 Site Specific Induction Training

All employees of the Principal and other Contractors must be in possession of Site Specific Occupational Health and Safety Induction or other qualifying training.

11.6.3 Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training.

All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training as follows:

Occupational Health and Safety Training Requirements: (as required by the Construction Regulations and as indicated by the Health and Safety Specification Document & the Risk Assessment/s and recommendations by the Health and Safety Committee):

- * General Induction (Section 8 of the Act)
- * Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- * Site/Project Manager
- * Construction Supervisor
- * OH&S Representatives (Section 18 (3) of the Act)
- * Training of the Appointees indicated in 12.6.1 & 12.6.2 above
- * Operators & Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 23) thus not limited to medical fitness tests from a qualified Health and Safety Medical Practitioner
- * Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction Regulation 29)
- * As a minimum basic First Aid to be upgraded when necessary (General Safety Regulations 3)
- * Storekeeping Methods & Safe Stacking (Construction Regulation 28)
- * Emergency, Security and Fire Co-ordinator

11.7 Accident and Incident Investigation

The Principal Contractor is responsible to oversee the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to receive first aid or be referred for medical treatment by a doctor, hospital or clinic. (General Administrative Regulation 9)

The results of the investigation to be entered into the Accident/Incident Register listed above. (General Administrative Regulation 9)

The Principal Contractor is responsible for the investigation of all non-injury incidents as described in

Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar incidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

Notwithstanding the requirements of Section 24 of the Act, ALL incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.

11.8 H&S Officer (SHE- Officer – ‘safety, health & environment’) and H&S Committees

11.8.1 Designation of H&S Officer / Representatives (‘SHE – Reps’) at Nyandeni, Thukela and Luqolweni villages water supply scheme

Where the Principal Contractor employs more than 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one H&S Representative for every 50 employees or part thereof. (Section 17 of the Act and General Administrative Regulation 6. & 7.)

H&S Representatives have to be designated in writing and the designation shall be in accordance with the Collective Agreement as concluded between the parties as is required in terms of General Administration Regulation 6.

11.8.2 Duties and Functions of the H&S Officer

The PC will employ at least one competent, full-time SACPCMP registered H&S Officer for the duration of the contract. The H&S Officer’s CV is to be submitted for approval by the H&S Agent, preferably at pre-tender phase. The PC is to ensure adequate resources are provided in order to undertake all responsibilities (i.e. mobile phone, computer and internet access, vehicle etc.) Qualifications shall include at least grade 12, SAMTRAC or similar. The Health & Safety Officer must be registered with the SACPCMP.

The Principal Contractor must ensure that the designated H&S Officer conduct at least a weekly inspection of their respective areas of responsibility using a checklist and report thereon to the Principal Contractor, after which these reports shall be consolidated for submission to the Health and Safety Committee.

H&S Officer must be included in and be part of accident/incident investigations.

H&S Officer shall be members of at least one H&S Committee and must attend all meetings of that H&S committee.

11.8.3 Establishment of H&S Committee(s)

The Principal Contractor must establish H&S Committees consisting of designated H&S Representatives together with a number of Employers Representatives appointed as per Section 19(3) that are not allowed to exceed the number of H&S Representatives on the committee. The persons nominated by the employer on a H&S Committee must be designated in writing for such period as may be determined by him. The H&S Committee shall co-opt advisory (temporary) members and determine the procedures of the meetings including the chairmanship.

The H&S Committee must meet minimum quarterly and consider, at least, the following Agenda for the first meeting. Thereafter the H&S Committee shall determine its own procedures as per the previous paragraph.

Agenda:

- 1) Opening and determining of chairmanship (only when necessary)
- 2) Minutes of Previous Minutes
- 3) Observations
- 4) Program and Safety considerations
- 5) Hygiene
- 6) Housekeeping improvement
- 7) Incidents & Accidents / Injuries
- 8) Registers:
 - a H&S Rep. Inspections
 - b. Matters of First Aid
 - c. Ladders
 - d. Portable Electric Equipment
 - e. Fire Equipment
 - f. Explosive Power Tools
 - g. Power Hand tools
 - h. Incident! Report Investigation
 - i. Personal Protective Equipment
- 9) Safety performance Evaluations
- 10) Education & Safety promotion program
- 11) First Aid Officials and training in First Aid
- 12) Demarcation of work- /hazardous-/safe areas/walkways
- 13) Posters and signage
- 14) Environmental preservation and conservation
- 15) Specific training programmes
- 16) General
- 17) Date of Next Meeting
- 18) Closing

13. PROJECT/SITE SPECIFIC REQUIREMENTS

The following is a list of specific activities and considerations that have been identified for the project and site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- * Clearing & Grubbing of the Area/Site
- * Site Establishment including:
 - o Office/s
 - o Secure/Safe Storage and storage areas for materials, plant & equipment
 - o Ablution facilities
 - o Vehicle access to the site
- * Adjacent Land uses/Surrounding property exposures
- * Boundary & Access control/Public Liability Exposures (Remember: the Employer is also responsible for the OH&S of non-employees affected by his/her work activities.)
- * Health risks arising from neighboring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning, allergies etc.
- * Exposure to Vibration
- * Exposure to Noise
- * Protection against dehydration and heat exhaustion
- * Protection from wet & cold conditions
- * Dealing with HIV/Aids and other diseases as per specific programme provided by the client and/or its Agent on its behalf
- * Use of Portable Electrical Equipment including:
 - o Angle grinder

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- Electrical Drilling machine
 - Skill saw
 - * Welding including:
 - Arc Welding
 - Gas welding
 - Flame Cutting
 - Use of Gas torches and appliances
 - * Loading & Offloading of Trucks
 - * Aggregate/Sand and other Materials Delivery
 - * Manual and Mechanical Handling
 - * Lifting and Lowering Operations
 - * Use and Storage of Flammable Liquids and other Hazardous Substances – the client and/or its Agent on its behalf to be informed of this prior to commencing of the project
 - * As discovered by the Principal Contractor’s hazard identification exercise
 - * As discovered from any inspections and audits conducted by the Client and/or its Agent on its behalf or by the Principal Contractor or any other Contractor on site
 - * As discovered from any accident/incident investigation.

13.1 The following are in particular requirements which will form a basis for compliance And Audits

1. Administrative & Legal Requirements
2. Education, Training & Promotion
3. Public Safety & Emergency Preparedness
4. Personal Protective Equipment
5. Housekeeping
6. Ladders
7. Electrical Safeguarding
8. Emergency/Fire Prevention & Protection
9. Excavations & Demolition
10. Tools
11. Transport & Materials Handling
12. Site Plant & Machinery
13. Plant & Storage Yards/Site Workshops Specifics
14. Health & Hygiene

14. OUTLINED DATA, REFERENCES AND INFORMATION ON CERTAIN AND/OR SPECIFIC OBLIGATORY REQUIREMENTS TO ENSURE COMPLIANCE

14.1 Administrative & Legal Requirements

OHS Act Section/ Regulation	Subject	Requirements
Construction. Regulation 4	Notice of carrying out Construction work	Department of Labour notified Copy of Notice available on Site
General Admin. Regulation 4	*Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site. Readily available for perusal by employees.
COID Act Section 80	*Registration with Compens. Insurer	Written proof of registration/Letter of good standing available on Site
Construction. Regulation 5	H&S Specification & Programme	H&S Spec received from Client and/or its Agent on its behalf OH&S programme developed & Updated regularly
Section 8(2)(d) Construction. Regulation 9	*Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and – Plan drawn up/Updated RA Plan available on Site Employees/Sub-Contractors informed/trained
Section 16(2)	*Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.
Construction. Regulation 7(8)	Medical certificate of fitness	All employees to have medical certificate of fitness
Construction. Regulation 8(1)	Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor with job description
Construction. Regulation 8(2)	Designation of Assistant for above	Competent person appointed in writing as Assistant Construction Supervisor with job description
Construction. Regulation 8(5)	Designation of Health and safety officer	Competent person appointed in writing as Health and Safety Officer with job description
Section 17 & 18 General Administrative Regulations 6 & 7	*Designation of Health & Safety Representatives	More than 20 employees – one competent H&S Representative, one additional H&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified in terms of GAR 6 & 7 Meaningful H&S Rep. reports. Reports actioned by Management.
Section 19 & 20 General Administrative Regulations 5	*Health & Safety Committee/s	H&S Committee/s established. All H&S Reps shall be members of H&S Committees Additional members are appointed in writing. Meetings held monthly, Minutes kept. Actioned by Management.

Section 37(1) & (2)	*Agreement with Mandataries/ (Sub-)Contractors	Written agreement with (Sub-)Contractors List of (Sub-)Contractors displayed. Proof of Registration with Compensation Insurer/Letter of Good Standing Construction Supervisor designated Written arrangements re. H&S Reps & H&S Committee Written arrangements re. First Aid
Section 24 & General Admin. Regulation 8 COID Act Sect.38, 39 & 41	*Reporting of Incidents (Dept. of Labour)	Incident Reporting Procedure displayed. All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1?)(WCL 1 or 2) and to the Client and/or its Agent on its behalf Cases of Occupational Disease Reported Copies of Reports available on Site Record of First Aid injuries kept
General Admin. Regulation 9	*Investigation and Recording of Incidents	All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing. Copies of Reports (Annexure 1) available on Site Tabled at H&S Committee meeting Action taken by Site Management.
Construction. Regulation 16	Scaffolding	Competent persons appointed in writing to: - erect scaffolding (Scaffold Erector/s) - act as Scaffold Team Leaders - inspect Scaffolding weekly and after inclement weather (Scaffold Inspector/s) Written Proof of Competence of above appointees available on Site Copy of SABS 085 available on Site Risk Assessment carried out Inspected weekly/after bad weather. Inspection register/s kept
Construction. Regulation 22/ Driven Machinery Regulations 18 & 19	Cranes & Lifting Machines Equipment	Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment Written Proof of Competence of above appointee available on Site. Cranes & Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: - All cranes - daily by operator - Tower Crane/s - after erection/6monthly - Other cranes - annually by comp. person - Lifting tackle(slings/ropes/chain slings etc.) - daily or before every new application

<p>Construction. Regulation 24/Electrical Machinery Regulations 9 & 10/ Electrical Installation Regulations</p>	<p>*Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)</p>	<p>Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site. Inspections: - Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools, electric lights and extension leads must be uniquely identified/numbered. Weekly visual inspection by User/Issuer/Storeman. Register kept.</p>
<p>Construction. Regulation 29/ Environmental Regulation 9</p>	<p>*Designation of a Person to Co-ordinate Emergency Planning And Fire Protection</p>	<p>Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: - Drilled/Practiced - Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on <i>register</i>. Inspected weekly. Inspection Register kept Serviced annually</p>
<p>General Safety Regulation 3</p>	<p>*First Aid</p>	<p>Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available Equipment as per the list in the OH&S Act. One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) List of First Aid Officials and Certificates Name of person/s in charge of First Aid box/es displayed. Location of First Aid box/es clearly indicated. Signs instructing employees to report all Injuries/illness including first aid injuries</p>
<p>General Safety Regulation 2</p>	<p>Personal Safety Equipment (PSE)</p>	<p>PSE Risk Assessment carried out Items of PSE prescribed/use enforced Records of Issue kept Undertaking by Employee to use/wear PSE PSE remain property of Employer, not to be removed from premises GSR 2(4)</p>
<p>General Safety Regulation 9</p>	<p>*Inspection & Use of Welding/Flame</p>	<p>Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas</p>

	Cutting Equipment	Welding and Flame Cutting Equipment Written Proof of Competence of above appointee available on Site All new vessels checked for leaks, leaking vessels NOT taken into stock but returned to supplier immediately Equipment identified/numbered and entered into a register Equipment inspected weekly. Inspection Register kept Separate, purpose made storage available for full and empty vessels
Hazardous Chemical Substances (HCS) Regulations Construction Regulation 23	*Control of Storage & Usage of HCS and Flammables	Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS (including Flammables) Written Proof of Competence of above appointee available on Site Risk Assessment carried out Register of HCS kept/used on Site Separate, purpose made storage available for full and empty containers
General Safety Regulation 13A	*Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and weekly there after. Inspections register kept Application of the types of ladders (wooden, aluminium etc.) regulated by training and inspections and noted in register

14.2 Education & Training

Subject	Requirement
*Company OH&S Policy Section 7(1)	Policy signed by CEO and published/Circulated to Employees Policy displayed on Employee Notice Boards Management and employees committed.
*Company/Site OH&S Rules (Section 13(a))	Rules published Rules displayed on Employee Notice Boards Rules issued and employees effectively informed or trained: written proof Follow-up to ensure employees understand/adhere to the policy and rules.
*Induction & Task Safety Training (Section 13(a))	All new employees receive OH&S Induction Training. Training includes Task Safety Instructions. Employees acknowledge receipt of training. Follow-up to ensure employees understand/adhere to instructions.
*General OH&S	All current employees receive specified OH&S training: written proof Operators of Plant & Equipment receive specified training Follow-up to ensure employees understand/adhere to instructions.

Training (Section 13(a)) *Occupational Health & Safety Promotion	Incident Experience Board indicating e.g. * No. of hours worked without an Injury * No. of days worked without an Injury Mission, Vision and Goal Star Grading - Board kept up to date. Safety Posters displayed & changed regularly Employee Notice Board for OH&S Notices. Site OH&S Competition. Company OH&S Competition. Participation in Regional OH&S Competition Suggestion scheme.
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14.3 Public Safety, Security Measures & Emergency Preparedness

Subject	Requirement
*PPE needs analysis	Need for PPE identified and prescribed in writing. PPE remain property of Employer, not to be removed from premises GSR 2(4)

Subject	Requirement
*Notices & Signs	Notices & Signs at entrances / along perimeters indicating “No Unauthorised Entry” . Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to the Site Office” Notices & Signs posted to warn of overhead work and other hazardous activities. e.g. General Warning Signs
Site Safeguarding	Nets, Canopies, Platforms, Fans etc. to protect members of the public passing / entering the site.
*Emergency Preparedness	Emergency contact numbers displayed and made available to Security & Guard Emergency Evacuation instructions posted up on all notice boards (including employees’ notice boards) Emergency contingency plan available on site/in yard Doors open outwards/unobstructed Emergency alarm audible all over (including in toilets)
*Emergency Drill & Evacuation	Adequate No. of employees trained to use Fire Fighting Equipment. Emergency Evacuation Plan available, displayed and practiced. (See Section 1 for Designation & Register)

14.4 Personal Protective Equipment

*Head Protection	All persons on site wearing Safety Helmets including Sub-contractors and Visitors (where prescribed)
*Foot Protection	All employees on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work. Visitors to wear same upon request or where prescribed
*Eye and Face Protection	<u>Eye and Face (also Hand and Body) Protection</u> (Goggles, Face Shields, Welding Helmets etc.) used when operating the following: <ul style="list-style-type: none"> * Jack/ Kango Hammers * Angle / Bench Grinders * Electric Drills (Overhead work into concrete / cement / bricks * Explosive Powered tools * Concrete Vibrators / Pokers * Hammers & Chisels * Cutting / Welding Torches * Cutting Tools and Equipment * Guillotines and Benders * Shears * Sanders and Sanding Machines * CO2 and Arc Welding Equipment * Skill / Bench Saws * Spray Painting Equipment etc.
*Hearing Protection	<u>Hearing Protectors</u> (Muffs, Plugs etc.) used when operating the following: <ul style="list-style-type: none"> * Jack / Kango Hammers * Explosive Powered Tools * Wood/Aluminium Working Machines e.g. saws, planers, routers
*Hand Protection	<u>Protective Gloves</u> worn by employees handling / using: <ul style="list-style-type: none"> * Cement / Bricks / Steel / Chemicals * Welding Equipment * Hammers & Chisels * Jack / Kango Hammers etc.
*Respiratory Protection	Suitable/efficient prescribed <u>Respirators</u> worn correctly by employees handling / using: <ul style="list-style-type: none"> * Dry cement * Dusty areas * Hazardous chemicals * Angle Grinders * Spray Painting etc.
*Protective Clothing	All jobs requiring protective clothing (Overalls, Rain Wear, Welding Aprons etc.) Identified and clothing worn.
*PPE Issue & Control	Identified Equipment issued free of charge. All PPE maintained in good condition. (Regular checks). Workers instructed in the proper use & maintenance of PPE. Commitment obtained from wearer accepting conditions and to wear the PPE. Record of PPE issued kept on H&S File. PPE remain property of Employer, not to be removed from premises GSR 2(4)

14.5 Housekeeping

Subject	Requirement
*Scrap Removal System	All items of Scrap/Unusable Off-cuts/Rubble and redundant material removed from working areas on a regular basis. (Daily) Scrap/Waste removal from heights by chute/hoist/crane. Nothing thrown/swept over sides. Scrap disposed of in designated containers/areas Removal from site/yard on a regular basis.
Stacking & Storage (See Section 1 for Designation & Register)	<p><u>Stacking:</u></p> <ul style="list-style-type: none"> * Stable, on firm level surface/base. * Prevent leaning/collapsing * Irregular shapes bonded * Not exceeding 3x the base * Stacks accessible * Removal from top only. <p><u>Storage:</u></p> <ul style="list-style-type: none"> * Adequate storage areas provided. * Functional – e.g. demarcated storage areas/racks/bins etc. * Special areas identified and demarcated e.g. flammable gas, cement etc. * Neat, safe, stable and square. * Store/storage areas clear of superfluous material. * Storage behind sheds etc. neat/under control. * Storage areas free from weeds, litter etc.
*Waste Control/Reclamation	Re-usable off-cuts and other re-usable material removed daily and kept to a minimum in the work areas. All re-usable materials neatly stacked/stored in designated areas. (Nails removed/bent over in re-usable timber). Issue of hardware/nails/screws/cartridges etc. controlled and return of unused items monitored.
Sub-contractors (Housekeeping)	Sub-contractors are required to comply with Housekeeping requirements.

14.6 Ladders

Subject	Requirement
*Physical Condition / Use & Storage	Stepladders - hinges/stays/braces/stiles in order. Extension ladders - ropes/rungs/stiles/safety latch/hook in order. Extension / Straight ladders secured or tied at the bottom / top. No joined ladders used Wooden ladders are never painted except with varnish Aluminium ladders NOT to be used with electrical work All ladders stored on hooks / racks and not on ground. Ladders protrude 900 mm above landings / platforms / roof. Fixed ladders higher than 5 m have cages/Fall arrest system

14.7 Electricity (as part of, or additional to the manual “Safety & Switching Procedures for Electrical Installations”- see attached document)

Subject	Requirement
*Electrical Distribution Boards & Earth Leakage	Colour coded / numbered / symbolic sign displayed. Area in front kept clear and unobstructed. Fitted with inside cover plate / openings blanked off / no exposed “live” conductors / terminals/Door kept close Switches / circuit breakers identified. Earth leakage protection unit fitted and operating. Tested with instrument: Test results within 15 – 30 milliamps Aperture/Opening/s provided for the plugging in and removal of extension leads without the need to open the door Apertures and openings used for extension leads to be protected against the elements and especially rain
*Physical condition of Electrical Appliances & Tools	<u>Electrical Equipment and Tools:</u> (includes all items plugging in to a 16 Amp supply socket) Insulation / casing in good condition. Earth wire connected/intact where not of double insulated design Double insulation mark indicates that no earth wire is to be connected. Cord in good condition/no bare wires/secured to machine & plug. Plug in good condition, connected correctly and correct polarity.

14.8 Emergency and Fire Prevention and Protection

Subject	Requirement
*Fire Extinguishing Equipment	Fire Risks Identified and on record <u>The correct and adequate Fire Extinguishing Equipment available for:</u> * Offices * General Stores * Flammable Store * Fuel Storage Tank/s and catchment well * Gas Welding / Cutting operations * Where flammable substances are being used / applied. * Equipment Easily Accessible
*Maintenance	Fire equipment checked minimum monthly, serviced yearly
*Location & Signs	<u>Fire Extinguishing Equipment:</u> * Clearly visible * Unobstructed * Signs posted including “No Smoking” / “No Naked Lights” where required.(Flammable store, Gas store, Fuel tanks etc.)
* Storage Issue & Control of Flammables (incl. Gas cylinders)	Storage Area provided for flammables with suitable doors, ventilation, bund etc. Flammable store neat / tidy and no Class A combustibles. Decanting of flammable substances carried out in ignition free and adequately ventilated area. Container bonding principles applied Only sufficient quantities issued for one task or one day’s usage Separate, special gas cylinder store/storage area. Gas Cylinders stored / used / transported upright and secured in trolley/cradle/structure and ventilated. Types of Gas Cylinders clearly identified as well as the storage area and stored separately. Full cylinders stored separately from empty cylinders. All valves, gauges, connections, threads of all vessels to be checked regularly for leaks. Leaking acetylene vessels to be returned to the supplier IMMEDIATELY .
*Storage, Issue & Control of Hazardous Chemical Substances (HCS)	HCS storage principles applied: products segregated Only approved, non-expired HCS to be used Only the prescribed PPE shall be used as the minimum protection Provision made for leakage/spillage containment and ventilation Emergency showers/eye wash facilities provided HCS under lock & key controlled by designated person Decanted/issued in containers as prescribed with information/warning labels Disposal of unwanted HCS by accredited disposal agent No dumping or disposal of any HCS on or inside the storage area or anywhere else on the project site All vessels or containers to be regularly checked for leaks

14.9 Tools

Subject	Requirement
*Hand Tools	<p><u>Shovels / Spades / Picks:</u></p> <ul style="list-style-type: none"> * Handles free from cracks and splinters * Handles fit securely * Working end sharp <p>and true<u>Hammers:</u></p> <ul style="list-style-type: none"> * Good quality handles, no pipe or reinforcing steel handles. * Handles free from cracks and splinters Handles fit securely <p><u>Chisels:</u></p> <ul style="list-style-type: none"> * No mushroomed heads / heads chamfered * Not hardened * Cutting edge sharp and square <p><u>Saws:</u></p> <ul style="list-style-type: none"> * Teeth sharp and set correctly * Correct saw used for the job
*Explosive Powered Tools.	<p>Only used by trained / authorised personnel.</p> <p>Prescribed warning signs placed / displayed where tool is in use.</p> <p>Work area must be properly isolated/demarcated during use of tool.</p> <p>Inspected at least monthly by competent person and results recorded.</p> <p>Issue and return recorded including cartridges / nails and unused cartridges / nails / empty shells recorded.</p> <p>Cleaned daily after use.</p>

14.10 Site Plant and Machinery

Subject	Requirement
Brick Cutting Machine	<p>Operator Trained.</p> <p>Only authorised persons use the machine.</p> <p>Emergency stop switch clearly marked and accessible.</p> <p>Area around the machine dry and slip/trip free/clear of off-cuts</p> <p>All moving drive parts guarded/electrical supply cable protected</p> <p>Operator using correct PPE - eye/face/hearing/foot/hands/body.</p>
*Electric Arc Welder	<p>Welder Trained.</p> <p>Only authorised / trained persons use welder. Earth cable adequately earthed to work.</p> <p>Electrode holder in good condition/safe</p> <p>Cables, clamps & lugs/connectors in good condition.</p> <p>Area in which welding machine is used is dry/protected from wet.</p> <p>Welder using correct PPE - eye/ face/foot/body/respirator.</p> <p>Correct transparent screens & warning signs placed</p>
*Compressors	<p>Relief valves correctly set and locked / sealed.</p>

	<p>Maximum Safe Working Pressure (MSWP) indicated on face of pressure gauge: not on glass cover. All drives adequately guarded. Receiver/lines drained daily Hoses good condition/clamped, not wired Compressed air NEITHER used to dust off clothing/PPE/ and work areas NOR on bare skin</p>
*Gas Welding / Flame Cutting Equipment	<p>Only authorised/trained persons use the equipment. Torches and gauges in good condition. Flashback arrestors fitted at cylinders and gauges. Hoses in good condition/correct type/all connections with clamps Cylinders stored, used and transported in upright position, secured in trolley / cradle / to structure. All cylinders regularly checked for leaks, leaking cylinders returned immediately Fire prevention/control methods applied/hot work permits</p>

14.11 Workplace Environment, Health and Hygiene

Subject	Requirement
*Lighting	<p>Adequate lighting in places where work is being executed e.g. stairwells and basements. Light fittings placed / installed causing no irritating/blinding glare. Stroboscopic effect eliminated (not only reduced) where moving objects or machinery is used</p>
*Ventilation	<p>Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.</p>
*Noise	<p>Tasks identified where noise levels exceeds 85 dB at any one time. All reasonable steps taken to reduce noise levels at the source. Hearing protection used where noise levels could not be reduced to below 85 dB.</p>
*Heat Stress	<p>Measures in place to prevent heat exhaustion in heat stress problem areas e.g. steel decks, when the WBGT index reaches 30. (See Environmental Regulation 4) Cold drinking water readily available at all times.</p>
*Ablutions	<p>Sufficient hygiene facilities provided - 1 toilet per 30 employees (National Building Regulations prescribe chemical toilets for Construction sites) Toilet paper available. Sufficient showers provided. Facilities for washing hands provided Soap/cleaning agent available for washing hands Means of drying hands available Lock-up changing facilities / area provided. Ablution facilities kept hygienic and clean.</p>
*Pollution of Environment	<p>Measures in place to minimize dust generation. Accumulation or littering of empty cement pockets, plastic wrapping / bags, packing materials etc. prevented.</p>
	<p>Spillage / discarding of oil, chemicals and dieseline into storm water and other drains or into existing or newly dug holes/cavities on site expressly prohibited.</p>

*Hazardous Chemical Substances	All substances identified and list available e.g. acids, flammables, poisons etc. Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available. Substances stored safely. Expiry dates meticulously checked where applicable
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THE PRINCIPAL CONTRACTOR’S GENERAL DUTIES

The Principal Contractor shall at all times ensure his status of an “employer” as referred to in the Act, and will abide by his/her responsibilities, duties and functions as per the requirements of the Act and Regulations with specific reference to Section 8 of the Act.

The Principal Contractor shall keep, and on demand make available, a copy of the Act on site at all times and in addition to that he/she will introduce and maintain a file titled “Health and Safety File”, or other record in permanent form, which shall contain all relevant aspects and information as contemplated in the Construction Regulations. He/she will make this file available to the client or his representative whenever necessary or on request to an interested party.

15. THE PRINCIPAL CONTRACTOR’S SPECIFIC DUTIES

The Principal Contractor’s specific duties in terms of these specifications are detailed in the Construction Regulations as published under government notice No.R1010 dated 18 July 2003.

The Principal Contractor is specifically referred to the following elements of the Construction Regulations:

- Regulation No. 1 - Definitions Regulation No. 2 - Scope of application
- Regulation No. 4 - Notification of construction work Regulation No. 7 - Principal Contractor and Contractor Regulation No. 8 - Supervision of construction work Regulation No. 9 - Risk Assessment
- Regulation No. 28 - Stacking & Storage on construction sites
- Regulation No. 30 - Construction welfare facilities Regulation No. 31 - Approved Inspection authorities Regulation No. 30 -

Offences and penalties

This list must not be taken to be exclusive or exhaustive!

The Principal Contractor shall ensure compliance to the Act and its Regulations and specifically to the above regulations, and document each record in the Health and Safety File.

16. THE PRINCIPAL CONTRACTOR’S SPECIFIC RESPONSIBILITIES WITH REGARD TO HAZARDOUS ACTIVITIES

The following activities are identifiable as hazardous in terms of the Construction Regulations.

The contractor shall execute the activities in accordance with the following Construction Regulations and other applicable regulations of the Act:

Regulation No. 24 - Electrical installations and machinery on construction sites

Regulation No. 25 - Use and temporary storage of flammable liquids on construction sites
Regulation No. 26 - Water

environments

Regulation No. 27 - Housekeeping on construction sites Regulation

No. 29 - Fire precautions on construction sites.

This list must not be taken to be exclusive or exhaustive!

All of the above requirements will be read in conjunction with the relevant regulations and health and safety standards as required by the Act. All documents and records required by the Construction Regulations will be kept in the Health and Safety File and will be made available at any time when required by the client or his representative, or on request to an interested party.

17. GENERAL NOTES TO THE PRINCIPAL

CONTRACTOR Legal Framework

Part of legal obligations

The more important Acts and relevant subordinate/secondary legislation as well as other (inter alia Local Government) legislation that also apply to the State as well as to State owned buildings and premises: -

- (i) The latest issue of SABS 0142: "Code of Practice for the Wiring of Premises"
- (ii) The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority
- (iii) The Fire Brigade Services Act 1987, Act 99 of 1987 as amended
- (iv) The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended and relevant proclaimed Regulations (SABS 0400)
- (v) The Post Office Act 1958 (Act 44 of 1958) as amended
- (vi) The Electricity Act 1984, Act 41 of 1984
- (vii) The Regulations of Local Gas Board(s), including Publications of the SABS Standards and Codes of Practice, with specific reference to GNR 17468 dated 4th October 1997
- (viii) Legislation pertaining to water usage and the environment
- (ix) Legislation governing the use of equipment, which may emit radiation (e.g. X-Rays etc.)
- (x) Common Law

Legal Liabilities

Common Law and Legislation

Based on two main criteria –

- Would the reasonable person have foreseen the hazard?

That is a reasonable person in that specific position, taking experience, qualifications, authority, position in the organization etc. into consideration

- Would the reasonable person have taken precautionary measures (action) to prevent or limit the hazard?

Negligence can be proven on failure on **any** or **both** of the above criteria
(There may not necessarily be a relationship between criminal and civil liability!)

18. HOUSE KEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 25. Poor housekeeping contributes to three major problems, namely, costly or increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

Particular emphasis is to be placed on the following crucial elements of a construction site:

- Phase priorities and production/plant layout
- Enclosures
- Storage facilities
- Effective, sufficient and maintained lighting or illumination
- Principal sources of injuries e.g. stairways, runways, ramps, loose building material
- Oil, grease, water, waste, rubble, glass, storm water
- Colour coding
- Demarcations
- Pollution
- Waste disposal
- Ablution and hygiene facilities
- First aid

This list must not be taken to be exclusive or exhaustive!

In promotion of environmental control all waste, rubble, scrap etc, will be disposed of at a registered dump site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied.

Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

NOTE: No employer (Principal Contractor) shall require or permit any person to work at night or after hours unless there is adequate, suitable artificial lighting including support services in respect of Health and Safety.

19. LOCKOUT SYSTEMS - ELECTRICAL!

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

20. INCIDENT INVESTIGATION

Inspection and reporting is the best way in which a responsible contractor can control his area of responsibility. All incidents therefore, irrespective of whether it gave rise to loss, injury, damage or not, shall be investigated and the results recorded in the Health and Safety File. (attached GAR 9)

21. GENERAL

The project under control of the Principal Contractor shall be subject to periodic health and safety audits that will be conducted by the client at intervals agreed upon between the Principal Contractor and the client, provided such intervals will not exceed periods of one month. The Principal Contractor is to ensure that he/she and all persons under his control on the construction site shall adhere to the above specifications, as non-conformance will lead to the client taking action as directed by Construction Regulation 5. The Principal Contractor should note that he/she shall be held liable for any anomalies including costs and resulting deficiencies due to delays caused by non-conformance and/or non-compliance to the above Health and Safety Specifications and the Health and Safety Plan based on these specifications.

Hoarding site office and Barricading of open trenches: Hoarding off of the construction site office area must be enforced strictly. Hoarding shall consist of a temporary fence with poles, at least 1.5 metres in height. A green shaded cloth shall be placed over the fencing to contain dust as well as to conceal the construction activities from the public. The hoarding line will be in such a manner that it would be impossible for the public to have access onto the construction area.

Speed Restrictions. The Contractor shall ensure that all persons in their employ and all those that are visiting the site are aware and comply with the site speed restriction(s), to be decided based on site conditions and the Risk Assessment

22. IMPORTANT LISTS AND RECORDS TO BE KEPT

The following are lists of several records that are to be kept in terms of the Construction Regulations. The lists are:

- 1 List of appointments
- 2 List of record keeping responsibilities
- 3 Inspection checklist

These lists and documents are to be used as a point of reference to determine which components of the Act would be applicable to a particular site or task or project, as was intended under paragraph 1 (“Preamble”) above.

LIST OF APPOINTMENTS (not limited to – depending on stage and development of the project)

ITEM	APPOINTMENT	RESPONSIBLE PERSON
1.	Principal contractor for each phase or project	Client
2.	Contractor	Principal Contractor
3.	Contractor	Contractor
4.	Construction supervisor	Contractor
5.	Construction supervisor sub-ordinates	Contractor
6.	Health and Safety Officer	Contractor
7.	Person to Carry Out Risk Assessment	Contractor
8.	Trainer/Instructor	Contractor
9.	Fire Equipment Inspector	Contractor

LIST OF RECORD KEEPING RESPONSIBILITIES

<i>ITEM</i>	<i>RECORD TO BE KEPT</i>	RESPONSIBLE PERSON
1.	Notification to Provincial Director – Annexure 2 or Construction work permit Available on site	Principal Contractor
2.	Copy of Principal Contractor’s Health & Safety Plan Available on request	Client
3.	Copy of Principal Contractor’s Health & Safety Plan As well as each Contractor’s Health & Safety Plan Available on request	Principal Contractor
4.	Health and Safety File opened and kept on site (including all documentation required i.t.o. OHSA & Regulations Available on request	Every Contractor
5.	Consolidated Health and Safety File handed to Client on completion of Construction work. To include all documentation required i.t.o. OHSA & Regulations and records of all drawings, designs, materials used and similar information on the structure	Principal Contractor
6.	Comprehensive and Updated List of all Contractors on site, the agreements between the parties and the work being done Included in Health and Safety file and available on request	Principal Contractor
7.	Keep record on the Health and Safety File of the input by Construction Safety Officer [CR 6 (7)] at design stage or on the Health and Safety Plan	Contractor
8.	Risk Assessment - Available on site for inspection	Contractor
9.	Proof of Health and Safety Induction Training	Every Employee on site
10.	Inform contractor in writing of dangers and hazards relating to construction work	Designer of Structure
11.	Fire Evacuation Plan	Contractor

INSPECTION CHECKLIST

Employer Particulars	
Employer:	
Registered Name of Enterprise:	
Trade Name of Enterprise:	
Company Registration No.:	
SARS Registration No.:	
UIF Registration No.:	

COIDA Registration No.:	
Relevant SETA for EEA purposes:	
Industry Sector:	
Bargaining Council:	
Contact Person:	
Address of Premises:	
Postal Address:	
Telephone Number:	
Fax Number:	
E-mail Address:	
Chief Executive Officer:	
Chief Executive Officer Address:	
Competent Person:	
Maximum power demand: in KW	
Health and Safety Representatives:	
Activities, products manufactured and/ services rendered:	
Raw materials, materials and chemical/ biological substances:	
Total Number of Employees:	Male: Female:

Contractor Particulars	
Contractors:	
Site Address:	
Contracts Manager:	
Managing Director:	
Competent Persons:	
CR14: SCAFFOLDING:	
CR10(1)(a): FALL PROTECTION:	
CR13(1)(1): EXCAVATION WORK:	
CR28(a): STACKING	

24. IMPORTANT CONTACT DETAILS

The contractor is to add all the important contact information about essentials services, support and assistance.

SERVICE NUMBER CONTACT PERSON



Hospital		



Ambulance		



Water		
Electricity		



Police		



Fire Brigade		



Engineer		
SHE Agent		
Client		

25. PRELIMINARY RISK ASSESSMENT

ACTIVITY	HAZARD	CONTROL MEASURE
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Site Clearance and Establishment	Moving plant/machinery striking persons, moving of material by employees, noise and dust	Appointment of construction site supervisor
Excavation works	Collapse of sides, striking workers, employees or person falling in and plant or vehicle falling in, plant or machinery striking persons, noise emissions	Appointment of excavation supervisor in writing to monitor all excavation works, excavation register or check list will be filled every day before work commences
Installation of Concrete Panels	Panels falling to employees striking them, damage to hands and collapse of structure	Appointment of site supervisor
House keeping	slips, trips and falls	<ul style="list-style-type: none"> • appointment of a person responsible to supervise housekeeping • housekeeping registers be filled regularly on a daily basis
Use of ladders, scaffold or trestle	<ul style="list-style-type: none"> • Collapse of structure • Fall of employees from ladder, trestle or scaffold • Fall of material • Fall of ladder, trestle or scaffold 	<ul style="list-style-type: none"> • Appointment of ladder, trestle or scaffold supervisor • Employees working on scaffold, ladders or trestle be deemed fit to work at heights • Daily filling of registers • Areas be barricaded
Storage and Staking	Collapse of stack material and falling to people	Appointment of stacking and storage supervisor to supervise this work. The supervisor will ensure: Stacks are built only on dry, level and firm ground, the height of stack will not be more than three times the width of the base on its narrowest side, stacks will be bonded, no stack will obstruct exists routes or signs nor fire fighting equipment
Hazardous Chemical Substances	Burning of employees, employees infected by chemicals	Appointment storage and stacking supervisor, chemicals to be stored as per its

		requirements, chemicals have to be placed categorically
Construction or delivery vehicle	Vehicles striking employees or public people, falling of vehicles into trenches	Driver's to be in a possession of a valid driver's licence, vehicles to have construction lamps and reversing alarms, barricade areas where there might be risk of falling
Social welfare facilities	Dehydration, diarrhoea etc	Provide clean drinking water and toilets for male and females

THE CONTRACTOR SHALL MEET THESE REQUIREMENTS PRIOR HEALTH AND SAFETY FILE APPROVAL AND COMMENCEMENT WITH CONSTRUCTION WORKS

1. Letter of good standing (valid)
2. Report to DOL of the intention to commence with construction works
3. Provide health and safety policies and sign off
4. Provide a health and safety plan
5. Provide legal appointment letters and sign off
6. Provide risk assessment and sign off
7. Provide safe working procedures and sign off
8. Provide fall protection plan and sign off
9. Provide competencies of appointed personnel
10. Appointment of a full time or part-time safety officer and its full details including CV or Company Profiles
11. Provide incident, evacuation and flammables plan and sign off
12. Provide emergency telephone numbers
13. Provide registers or checklists
14. Provide incident forms
15. Proof of training of safety representatives and first aiders by an accredited institution
16. Provide health and safety Organogram

27. THE FOLLOWING EQUIPMENT SHOULD BE ON SITE AT ALL TIMES

1. FIRST AID BOX
2. FIRST AID CERTIFICATE SHOULD BE DISPLAYED AT THE SITE OFFICE
3. SAFETY REPRESENTATIVE CERTIFICATE SHOULD BE DISPLAYED AT THE SITE OFFICE AT ALL TIMES
4. EMERGENCY TELEPHONE NUMBERS TO BE DISPLAYED AT THE SITE OFFICE AT ALL TIMES
5. FIRE EXTINGUISHER (4.5 OR 9 KG-VALID) TO BE ON SITE AT ALL TIMES
6. HEALTH AND SAFETY WALL CHART (OHS ACT NO.85 OF 1993) TO BE DISPLAYED ON SITE AT ALL TIMES
7. DRAWINGS OF THE STRUCTURE TO BE DISPLAYED ON SITE AT ALL TIMES
8. PROGRAMME OF WORKS TO BE DISPLAYED ON SITE AT ALL TIMES
9. HEALTH AND SAFETY SIGN BOARDS TO BE DISPLAYED AT STRATEGIC PLACES ON SITE i.e. SITE OFFICE, VISITORS TO REPORT TO SITE OFFICE, STOREROOM, ASSEMBLY POINT etc

28. EXPECTATIONS BY THE CLIENT FROM THE PRINCIPAL CONTRACTOR

1. The Principal Contractor will be required to price for all health and safety costs for the relevant requirements when submitting the Tender Document
2. The Principal Contractor shall appoint a Competent Safety Officer and costs shall form part of all health and safety costs which include site visit, attending progress meetings, updating health and safety file monthly etc
3. The Principal Contractor shall also submit monthly health and safety reports to the Client or Client's Agent
4. The Principal Contractor shall also include the pricing of Personal Protective Equipment for its employees
5. The Principal Contractor shall include pricing for safety representatives and first aiders
6. The Principal Contractor shall include health and safety file costs in the bill of quantities

Supply

C3: Scope of Works

It is under these requirements that seek to enforce health and safety acts and regulations that the Client has developed this health and safety specification to ensure that it (h & s spec) acts as the guideline in assisting the Principal Contractor to formulate health and safety plan. The Client therefore, make a point that the Principal Contractor abides by all that has been entailed in this Specification and no comprises will be made that will be in violation of this specification. The Client shall ensure that the Principal Contractor has appointed a Safety Officer to manage its health and safety on site and the costs thereof shall be added by the Principal Contractor in his Bid document.

After reading all of the aforementioned requirements, the Principal Contractor when submitting his Tender Document shall sign underneath as having read and accepting all the requirements mentioned, and by so doing, the Principal Contractor shall be held accountable and responsible for all health and safety practices on site.

29. Thereafter, the Client shall sign the Tender Document of the winning Bidder as a Contractual Agreement between the “The Client and The Principal Contractor”.

I, representing

.....
(Bidder’s Name) as the Director or Managing Member of the Company hereby abide myself to act fully as the OHS Act No. 85 of 1993 and Construction Regulations requires me to do in ensuring health and safety compliance in my awarded project as paramount. I also surrender myself to be held accountable and responsible for any ignorance and misrepresentation of these Acts and Regulations and required actions shall be placed upon me.

NAME OF THE BIDDER

SIGNATURE OF BIDDER DATE

ANNEXURE B

Environmental Specification

2. ENVIRONMENTAL SPECIFICATIONS: PRE- CONSTRUCTION, CONSTRUCTION AND OPERATION PHASES

This Chapter of the EMPr outlines the environmental specifications which are required to be implemented for the construction, operation and ultimately decommissioning phases of the Shixini Water Supply project. Some of the specifications contained here-in are based on the general environmental specifications detailed in the generic EMPr.

Comprehensive environmental audits are to be undertaken periodically during the construction and operation phases for the project, in order to verify compliance with the measures listed below, the recommendations contained within the EIA Report and all applicable environmental legislation. If compliance with any of these measures cannot be met, it will be the responsibility of the Contractor to motivate for this non-compliance.

Application

The Environmental Specifications comprise clauses that are generally applicable to the undertaking of civil engineering works in areas where it is necessary to impose pro-active controls regarding the extent to which the construction activities impact on the environment.

2.1. PLANNING & DESIGN PHASE

Responsible Person (s): Applicant

Timeframes: Before appointment of Contractor

- Ensure Environmental Authorization, Water Use permit and DAFF permit are obtained and an Environmental Authorization appeal period has lapsed before construction commences;
- Ensure relevant Water Use Licenses are obtained for all prospective water uses
- Ensure Heritage approval is applied for where required
- Ensure that relevant approvals from other regulatory authorities are obtained if required.

2.2. PRE-CONSTRUCTION PHASE

Responsible Person (s): Applicant advised by Project Manager and ECO

Timeframes: Before construction commences

2.2.1. Site Plan

The construction camp, offices, workshops, staff accommodation, etc. shall be established in a manner that does not adversely affect the environment.

Before construction can begin, the contractor shall submit to the Project Manager for his approval a site layout plan detailing plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place. In particular, this plan must include:-

- Site access (including entry and exit points).
- Access and haulage routes.
- All material and equipment storage areas (including storage areas for hazardous substance such as fuel and chemicals) - Only designated areas may be used for the storage of materials, machinery, equipment, site offices and accommodation facilities.

-
- Construction offices and other structures (accommodation for staff, where required and considered appropriate). The construction offices should not be placed in close proximity to steep areas. It is recommended that the offices be situated outside the nature reserve (preferably within town), and the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course.
 - Areas where construction vehicles will be serviced.
 - Security requirements (including temporary and permanent fencing, and lighting) and accommodation areas for security staff.
 - Areas where vegetation will be cleared.
 - The locality as well as the layout of the temporary waste storage facilities for litter, kitchen refuse, sewage and workshop-derived effluents. Waste storage facilities for sewage, grey water and workshop-derived effluents, where no formal facilities exist.
 - Stormwater control measures.
 - Provision of potable water and temporary ablution facilities.
 - Potential pollution hazards and mechanisms to manage these.
 - Intended mitigation measures regardless of the chosen site for approval by the ECO.

The site plan shall be submitted no later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the Project Manager for consultation during rehabilitation of the site.

Throughout the period of construction, the Contractor shall restrict all activities to within the designated areas on the approved construction layout plan. Any relaxation or modification of the construction layout plan is to be approved by the ECO.

2.2.2. Demarcation of 'No Go' areas

- The following areas shall be clearly demarcated as 'No Go' areas before construction commences:
 - Bird nesting sites, should they be encountered;
 - All species of special concern likely to be affected by the construction;
 - All rehabilitated areas;
 - Any other area declared by the Engineer in conjunction with ECO and/or Applicant.
- No stockpiling or activities may take place within a 'No Go' area.
- Physical demarcation to take place where reasonable and feasible (e.g. demarcation of the forest would be unreasonable) and where required to guide construction activities. 'No Go' areas to be demarcated with fencing that must be maintained for the duration of the construction phase.
- All staff to be informed of the 'No Go' areas and of the penalties for working within such areas.

2.2.3. Protection of flora

- A search and rescue operation must be carried out to remove plants that need to be relocated and/or kept for replanting. The search and rescue operation must:
 - Take place before any construction occurs;
 - Be in accordance with any permit condition;
 - Be undertaken under the direct supervision of the ECO;
- Pesticides and herbicides must not be used on site. Physical and mechanical removal of vegetation should be favoured.
- Only vegetation directly impacted on by the WSS must be removed. No other vegetation surrounding the site may be removed.

2.2.4. Protection of fauna

- Prior to construction commencing, a search and rescue at the camp site and the working area must be undertaken. Animals found and rescued must be released unharmed elsewhere within the surrounding environment.
- Poaching of any description will be strictly prohibited.
- Feeding of wild animals must be strictly prohibited and perpetrators will be prosecuted.

2.3. CONSTRUCTION PHASE

Responsible Person (s): Contractor (overseen by Project Manager and ECO)

Timeframes: From appointment of Contractor to end of defects liability period

2.3.1. Water for Human Consumption

Water for human consumption should be made available at the construction area. If no potable water source is available on site then drinking water shall be imported. The use of raw water from the local watercourses for consumption is not recommended unless the water is treated first.

2.3.2. Sewage Management

It is mandatory that contractor's camp/office site should have ablution facilities. All effluent water from the camp/office site shall be disposed of or stored in a properly designed and constructed system, situated so as not to adversely affect water sources (river, wetland, etc.).

Sanitary arrangements should be to the satisfaction of the ECO, the local authorities and all applicable legal requirements whether the site camp is outside the construction area.

Ablution Facilities

- The construction camp and working area should be supplied with proper ablution facilities. Chemical toilets area recommended.
- Performing ablution outside the toilet facilities is strictly prohibited. Use of the veld for this purpose shall not, under any circumstances, be allowed.
- The toilets shall be secured, and provided with all the necessary hygienic products such as soap and toilet paper.

2.3.3. Vegetation

- The Contractor has a responsibility to inform all staff of the need to be vigilant against any practice that will have a harmful effect on vegetation. This information shall form part of the Environmental Education Programme to be effected by the Contractor.
- Only vegetation directly affected by the works and such others as may be indicated by the ECO in writing, may be felled or cleared.
- A permit must be obtained from the relevant Department (DAFF) prior to the removal or damage of any indigenous tree.
- Re-vegetation of disturbed areas must be undertaken with site indigenous species and in accordance with the instructions issued by the ECO.
- Sensitive areas adjacent to the site, including all potential habitats, must be demarcated and no construction activities or impacts must be permitted to occur across these demarcations. Demarcated areas must be fenced off and no personnel or equipment must be permitted to enter these areas.

- The Contractor shall ensure that machinery and vehicles shall not be driven on any area other than the already existing access roads. Areas outside the impact zone are to be designated as sensitive and therefore no access to these areas by construction contractors or equipment will be permitted.
- The ECO must be present to monitor impacts and prevent undue damage.
- Any proclaimed weed or alien species that germinates during the contract period shall be cleared by hand before flowering.
- Ongoing monitoring and maintenance of re-vegetation works should be undertaken following construction phase of the project. Vegetation may only be cleared within demarcated work area and only when it is necessary;
- Re-vegetate exposed areas with a suitable grass seed mix of indigenous species upon completion of construction activities;

2.3.4. Aquatic ecosystems

- Increased runoff during construction must be managed using berms and other suitable structures as required to ensure that flow velocities are reduced. This must be done in consultation with the RE and the ECO. Storm water, wherever possible, should be allowed to soak into the land in the area on which the water falls, e.g. by using retention ponds.
- In the event of pollution due to construction activities, the Contractor shall be responsible for all costs incurred by organisations called to assist in pollution control and/or to clean up polluted areas (Section 20 of the National Water Act, 1998,).
- The Contractor shall ensure that excessive quantities of sand, silt and silt-laden water do not enter the storm water system or drainage areas. It is important to design the storm water drainage system in such a way as to prevent contamination of the natural drainage system. Appropriate measures, such as silt traps or the establishment of drainage retention areas, must be used to prevent the ingress of silt and sand into drainage lines or watercourses.
- Runoff containing high sediment loads must not be released into natural or constructed drainage systems or nearby watercourses. If this becomes a problem it is recommended that an attenuation pond be constructed to allow solids to settle out of runoff prior to leaving the site.
- Approval must be obtained from DWS for any activities that require authorisation in terms of Section 39 of the National Water Act, 1998 (Act No. 36 of 1998) if necessary.
- A relevant specialist must be consulted prior to the demarcation of drainage lines and wetlands where needed. No vehicular access is allowed in permanently wet areas.
- "NO ENTRY" signs must be strategically placed along rivers, streams and other natural or man-made drainage lines which are in close proximity to access routes. These lines and the vegetation occurring in them are sensitive to impacts during the construction phase and may not be polluted or damaged in any way.
- No roads shall be cut through river and stream banks, as this may lead to erosion causing siltation of streams. Existing drifts and bridges must be used. Such structures shall be thoroughly examined for strength and durability before they are used. Ground drainage levels are required to direct surface runoff to drainage lines. These drainage lines must ensure that the water is gravity-fed from the work areas to areas with limited or no disturbance. This ensures that the water has the smallest potential of being contaminated before released into the environment.

2.3.5. Fauna

- Feeding, Trapping, poisoning and/or shooting of animals is strictly forbidden. No domestic pets or livestock are to be permitted within the working area. Any animal killed as a result of trapping or hunting or found in the possession of an employee of the Contractor will result in that employee being removed from site for the duration of the Contract and actions taken against that particular person.
- All areas outside the access routes and the working area are to be treated as 'No Go' zones.
- The ECO will make the Contractor aware of any Ordinances, Acts, by-laws, or regulations pertaining to the protection of fauna on the site.
- The use of pesticides and herbicides must be strictly avoided during the project cycle.

2.3.6. Solid Waste Management

The Contractor shall be responsible for the establishment of a waste control system that is acceptable to the Engineer and ECO, and a method statement is required in this regard.

General Waste

- Weatherproof and scavenger proof bins shall be provided at each working area and emptied when full or at least once a week, whichever comes first.
- No waste from construction or otherwise, may be disposed of on site. All waste generated on site, must be removed and disposed of at a licensed waste disposal site.
- Solid waste shall be stored in a designated central area within the project area in covered, tip proof metal drums for later collection and disposal. As far as possible, general waste (including paper, glass, plastics, aluminium, etc.) shall be sorted for recycling.
- No waste shall be burned anywhere else on the site, including at an approved solid waste disposal site.
- No littering by construction workers must be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter. Fines shall be implemented for persons found littering.
- Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse.
- General waste shall be disposed of at the registered municipal solid waste disposal site least once a week.

Hazardous waste

- Hazardous waste (contaminated soil, etc.) shall be stored in secondary containers which are properly labelled.
- Safe disposal certificates to be obtained for all hazardous wastes leaving the site.
- If potentially hazardous substances (such as hydrocarbon, oil) are to be stored on site, the Contractor shall provide a Method Statement detailing the substances/ materials to be used, together with the storage, handling and disposal procedures of the materials.
- Hazardous waste shall be disposed of at an approved hazardous waste landfill site. Special care should be taken to avoid spillage of hazardous waste from entering the ground or contaminating water.
- Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery should be collected in a holding tank and returned to the supplier or oil recycling centre. Water and oil should be separated in an oil trap. Oils collected in this manner, should be retained in

a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials.

- Hazardous waste shall not be stored or stockpiled in any area other than that designated on the construction site layout.
- Any contaminated soil should be removed and replaced. Bund made of plastic material covered with sand shall be used around hazardous waste storage facility.
- Hazardous waste shall be transported to a registered hazardous waste disposal site at least once every three months.

2.3.7. Fuel Storage

- Fuel shall be stored in a secure area. A plastic material covered with sand shall be used as bund underneath and around the fuel containers at all times. This material will be treated as hazardous waste and will be disposed of accordingly during the post construction phase.
- Storage of fuel will be confined to the demarcated secure area(s).
- Fuel tanks shall be located at least 3.5metres from any combustible or flammable material.
- Leakage of fuel shall be avoided at all times and if found to occur shall be remedied immediately. Suitable and adequate supplies of absorbents shall be available at all times to control and absorb any spillages.
- Generators and fuel supply needed during construction must be placed on trays, which can rest on clean sand.
- Once construction has been completed, this sand must be removed from the site and disposed of at a registered hazardous waste site.

2.3.8. Clearing of the Site

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, a plan of action shall first be submitted to the engineer and ECO for approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within construction site boundaries for all areas disturbed during construction. This responsibility shall extend until expiry of the defects liability period.

2.3.9. Soil Management

Topsoil

- Topsoil shall be removed from all areas where physical disturbance of the surface would occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil for later re-use.
- All topsoil stockpiles shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled topsoil shall be removed by hand. The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water such that damming or erosion is caused, or itself be eroded through the action of water.
- Stockpiles of topsoil shall not exceed a height of 2m.

- Soils contaminated by hazardous substances shall be disposed of at an approved Department of Environmental Affairs (DEA) hazardous waste disposal site. The Contractor shall ensure that very minimal amounts of topsoil are lost due to erosion, either by wind or water. This can be facilitated through the grassing of topsoil stockpiles. Areas to be top-soiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and re-vegetation. The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the ECO. The Contractor's responsibility shall also extend to the clearing of drainage or water systems that may have been affected by such negligence within and beyond the boundaries of the road reserve.

Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. This layer of soil shall be removed to a depth instructed by the Engineer and ECO, and stored separately from the topsoil if not used for construction purposes. During rehabilitation, this subsoil shall be replaced in the excavation in the original order it was removed.

2.3.10. Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities.

The Shixini River, any local streams, pans/ponds, wetlands, and their catchments shall be protected from erosion, direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, and organic materials.

Storage containers must be regularly inspected so as to prevent leaks into the aquatic system.

The construction camp and necessary ablution facilities meant for construction workers must be at least 100m away from the river and any wetland, and outside of any natural drainage line.

Water diversion and erosion control structures shall be put in place. These must be capable of withstanding storm events with a probability of greater than 50% for the time of year during which construction takes place.

Weather forecasts from the South African Weather Bureau of up to three days in advance must be monitored on a daily basis to avoid exposing soil or building works or materials during a storm event and appropriate action must be taken in advance to protect construction works should a storm event be forecasted.

2.3.11. Cement Mixing

- No concrete mixing activities shall occur directly on the ground. Mixing trays shall be used at all mixing and supply point.
- All wastewater and runoff from concrete mixing areas shall be strictly controlled, and cement contaminated water shall be collected, stored and disposed of at a site approved by the ECO.
- Unused cement bags are to be stored so as not to be affected by rain or runoff events. Used bags shall be disposed of in the appropriate manner as approved by the ECO.
- All visible remains of excess concrete shall be physically removed on completion of the plaster or concrete pour section and disposed of. All excess aggregate shall also be removed.

2.3.12. Spillages

- The soil surface shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, wash water, and organic materials;
- Spills are to be cleared and contaminated material disposed of at an appropriately permitted disposal site;
- Spills greater than 10L or which occur in areas where ground or surface water may be affected are to be reported to the Competent Authority within 24hrs;
- Spill kits should be made available at the construction camp and working area at all times;
- Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to the ECO or Project Manager;
- The ECO will assess the situation in consultation with the Project Manager and act as required. In all cases, the immediate response shall be to contain the spill.
- Areas of spill shall be rehabilitated according to the ECO's instructions.
- Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

2.3.13. Archaeological features

- Should a heritage resource (e.g. human remains, archaeological or palaeontological artefact) be discovered during construction the following will apply:
 - Work at the point of the discovery is to cease immediately;
 - The point of discovery is to be clearly demarcated to prevent unauthorized removing or damage to the resource;
 - The South African Heritage Resources Agency (SAHRA) is to be informed immediately or within 24 hours of the discovery;
 - A professional heritage specialist will be consulted by the Applicant to assess the significance of the find and to apply for the necessary permits from SHARA for the rescue and/or destruction of these fossils.
 - Work shall not recommence until such time as guidance from SAHRA has been received.

2.3.14. Noise Control

- Modern low noise emission vehicles and equipment shall be favoured on site. The details of all construction machinery and vehicles must be determined prior to construction in order to identify potentially noisy machinery and to seek possible alternatives.
- Vehicles and machinery shall be fitted with silencers yielding a maximum ambient noise level of 805dB;
- A well planned and co-ordinated "fast track" procedure is to be implemented to complete the total construction process in any area in the shortest possible time.
- Construction activities will be restricted to normal daytime working hours (07:00 – 17:00). No construction activities should be allowed during weekday evenings and night-time (after 17:00), on Saturdays after midday (12:00) and the entire day on Sundays.
- All noise-making equipment shall be turned off when not in use.
- All equipment shall be kept in good working order.
- All equipment shall be operated within specifications and capacity (i.e. do not overload machines).
- Compliance with the appropriate legislation with respect to noise is mandatory.

2.3.15. Dust and Air pollution Control

- Appropriate dust-suppression techniques as approved by the Project Manager and ECO shall be implemented on all exposed surfaces during periods of high wind. Only wet suppression and revegetation of open areas will be allowed to control dust problems.
- Water used for dust suppression must be applied in quantities small enough not to generate run-off and result in soil erosion.
- Mitigation actions such as the reduction of vehicle speed and proper signage shall also be implemented.
- Vegetation cover should be maintained and vegetation cover only removed until such time as soil stripping is required.
- Exposed soil that has the potential for generating dust shall be re-vegetated or stabilised as soon as possible after construction work is completed, or kept damp until re-vegetation occurs.
- Excavation and handling of topsoil shall be avoided during periods of excessive wind.
- Construction vehicles and machinery shall be inspected for excessive emissions. Vehicles are to be maintained in good working order and must be regularly serviced so that emissions are within the permitted standards.
- Construction vehicles shall comply with speed limits of 30km/h.

2.3.16. Control and Management of Alien Vegetation

- Alien plants must be removed as soon as they are detected.
- Removed alien vegetation must be disposed of in a manner approved by the ECO, or should be disposed of in accordance with the appropriate methods developed by the Working for Water Programme, and advice from this organisation shall be obtained.
- Removal of alien vegetation within these areas must be undertaken by hand wherever possible.
- Re-vegetation of disturbed areas must be undertaken with site indigenous species. Translocating stockpiles of topsoil from one place to another shall be avoided in order to avoid translocating soil seed banks of alien species.
- Depending on the variation in soil types on the micro-scale, it shall be important to differentiate different soil characteristics during rehabilitation from the point of view of separating soil types. The correct soil types must be replaced in the areas from which they were originally removed. This is important as it relates to rehabilitated plants which may only grow in specific soil types.

2.3.17. Erosion Control Measures

The construction footprint and the local area should be regarded as being of high erosion risk and as such:

- No soil erosion should be tolerated on site
- No stockpile should be put within the floodline of the Shixini River and any other watercourse, at any drainage line, nor within the forest area of kuMdzonga.
- All areas stripped of topsoil should be protected against soil erosion (e.g. use of gabions)
- Anti-erosion measures such as contour berms, cut off drains, or planting of grass sods may be necessary in areas where evidence of soil erosion appears.
- Where soil erosion does occur, the contractor should re-instate the area to the satisfaction of the Engineer and ECO.

General

- Construction at the banks of Shixini River as well as along the intermittent streams should take place during periods of low flow / the dry season (i.e between March-July/August).
- The removal of the natural vegetation cover must be avoided and where this cannot be done, minimised.
- Agricultural drainage methods must be used in fill materials to remove water that could trigger slumping.
- The disturbance of the natural soil structure must be prevented and excavations planned carefully.

Particularly sensitive areas:

- All fill material must be very well compacted and innovative use of geo-textile materials in the retention of soil fill areas made.
- Rainwater runoff from disturbed areas must be prevented as far as possible.
- Do not EVER allow stormwater to exit onto unprotected slopes.
- Any disturbed surfaces must be vegetated as soon as possible using local indigenous materials.

2.3.18. Landscape and Visual

- Reasonable measures should be taken to ensure that construction activities do not have an unreasonable impact on the aesthetics of the area.
- The proposed project structures (Abstraction facility, WTW, reservoirs, break pressure tanks, etc.) shall be as 'transparent' as possible to 'melt' / integrate into the surrounding landscape.

2.3.19. Community Relations

Information boards shall be erected and maintained in the position, quantity, design and dimensions specified. Such boards shall include contact details for complaints by members of the public in accordance with details provided by the Engineer.

A Complaints Register shall be kept on site. The Register shall contain all contact details of the person who made the complaint, and information regarding the complaint itself. Copies of all entries into the complaints register should be kept in the environmental site file.

Employment

Without compromising construction and operation activities and schedules, local labour should be employed as far as possible. Those successful in obtaining employment should be provided with the appropriate skills development and training.

Local Labour Recruitment and Employment Strategy

The project should involve all the communities around the Ward 22 area to ensure full participation in the project. The facilitation of employment in the areas should be done in consultation with the local Municipality (through the Ward Councillor) and other development committees in the area.

2.3.20. Access

Access to the construction camp and working areas shall utilize existing roads and tracks and the roads constructed specifically for construction purposes (e.g. to the WTW) only. Entry/exit points onto public roads must take cognizance of traffic safety. Traffic safety measures shall include appropriate signage where relevant.

In addition such vehicles shall be so routed and operated as to minimise disruption to regular users of the routes on site. All vehicles shall not exceed a speed of 30km/h.

2.3.21. Fire control

- No fires are allowed to be lit on site, except at a designated area within the construction camp. Any fires that occur shall be reported immediately.
- Smoking shall not be permitted in those areas where it is a fire hazard. “No-smoking” signs shall be visibly placed in areas where there may be fire risk (oil/fuel storage areas, near dry vegetation, etc.). Dedicated smoking areas should be set aside at all the construction site.
- Penalties should be imposed to those found smoking outside smoking zones;
- Basic fire- fighting equipment shall be readily available on site at all times. This shall include at least rubber beaters and one fire extinguisher of the appropriate type.
- Employees to be made aware of the procedures in the event of a fire.

2.3.22. General Health, Safety and Security

General Health

- Workers should wear appropriate protective clothing at all times;
- Training of staff and workers on Occupational Health and Safety aspects will be mandatory and workers should be refreshed every month, apart from every day ‘Toolbox Talks’;
- Ample signage including ‘no smoking’ zones, safe eating areas will be installed at the working area.
- Human contact with wild animals will be avoided wherever possible. Only people with the necessary expertise (e. g. qualified Zoologists) may be allowed to get into contact with wild animals.

Safety

- All construction personnel should always wear protective clothing when entering the working area. Protective clothing should as a minimum include safety boots, gloves, helmet (where relevant) and overalls/work suits.
- Protective clothing must be uniform (i.e. workers issued overalls with company name/logo, etc.) so as to distinguish between construction workers and trespassers.
- Construction work must adhere to all requirements of the Occupational Health and Safety Act (Act 56 of 2004).
- Warning signs must be placed on and around the site as per the Occupational, Health and Safety requirements.
- Basic fire-fighting equipment and first aid kit must be available on site.

Security

- Security measures should be put in place to avoid and to minimise vandalism and human-animal conflicts;
- Food should be always kept in locked areas to discourage the animals (wild & domestic) from visiting the working area;

2.4. OPERATIONAL PHASE

This section of the EMPr outlines the actions required to protect the natural, social and socio-economic environment during operation of the project.

The Environmental specifications contained in this section address the requirements for controlling the environmental impact upon the development site and surrounding environment during operational activities.

Responsible Person(s): Applicant

Contractor during defects liability period (1 year)

Timeframes:

From end of construction to decommissioning/closure

2.4.1. Vegetation

- Regular monitoring for alien invasive plants to be carried out, particularly in areas that have been disturbed by construction activities. Such plants to be removed prior to them setting seeds.
- Alien plant removal and disposal to conform to Working for Water requirements of DWS.
- Ensure that re-vegetation efforts are monitored during defects liability period and that re-seeding and other corrective measures take place if re-vegetation proves unsuccessful.

2.4.2. Erosion control

- Erosion control measures must be provided wherever erosion is likely to result as a consequence of the project. Control measures must be implemented at, but are not limited to:
 - Scour outlets (e.g. stone pitching at base of outlet or small reno mattress)
 - Gabions to be provided to stabilize soil disturbed by river crossing
 - Slope areas where soil erosion is likely to happen
 - All access roads and visible paths

Note that in all cases, if existing vegetation is left intact then erosion risk is considerably reduced.

- Erosion protection measures installed during construction stage must be monitored during defects liability period for effectiveness.
- Any runnels or erosion channels developed during construction or during defects liability period shall be backfilled and compacted. Stabilization of cleared areas to prevent and control erosion shall be actively managed. Consideration and provision shall be made for various methods, namely, brushcut packing, mulch or chip cover, straw stabilising, watering, soil binders and anti – erosion compounds, mechanical cover or packing structures (e.g. Hessian covers).

2.4.3. Stormwater

- Stormwater control measures will need to be implemented to ensure water running off the project specific areas does not cause erosion to the surrounding environment.
- All stormwater should be directed to the drainage areas without the possibility of sediment being picked up.

2.5. REHABILITATION

Responsible person(s): Contractor during construction and defects liability period

Applicant (for rehabilitation after defects liability period)

Timeframes:

From end of construction to beyond decommissioning phase

2.5.1. General rehabilitation

The guiding principle for rehabilitation is to restore the disturbed areas to at least the same (but preferably better) level of ecological functioning as they were before the disturbance.

- All temporary facilities and waste materials must be removed and disposed of in accordance with the Environmental Authorization and EMP requirements.
- Stockpile topsoil must be replaced and reseeded if necessary.
- The necessary drainage works and anti –erosion measures must be implemented and maintained.
- Disturbed areas must be landscaped (i.e. profiled so that they blend in with the existing topography) and re-vegetated with appropriate, indigenous vegetation.
- Prior to re-vegetation structures and materials not forming part of the permanent works, including remnants of building materials, concrete foundations, timber and other foreign debris, shall be removed and disposed of via the solid waste management system. The area shall be re-vegetated as follows;
 - The surface shall be leveled by hand as practically as possible.
 - Alien vegetation shall be cleared in accordance with an accepted alien plant removal protocol.
 - Water used for irrigation of re-vegetated areas shall be free of pollutant that will have a detrimental effect on the plants. Watering should be carried out using a fine nozzle spray to avoid erosion and disturbance of vegetation.
- The re-vegetated area shall be declared a 'No Go' area until the vegetation has fully recovered.

2.6. SITE CLOSURE/DECOMMISSIONING

Responsible person: Applicant

Project Manager during construction and defects liability period

Timeframes: From end of construction period to beyond decommissioning/closure in the case of reservoirs, bulk pipelines and village reticulation.

For shutdown period in case of temporary shutdown

From the end of operational phase in the case of Abstraction and Pumping Facilities, WTW and connecting bulk pipeline.

2.6.1. Temporary site closure

- If the site is to be closed for a period exceeding one week, the ECO, in consultation with the Project Manager, shall ensure that the temporary site closure environmental checklist is completed and that the following actions have been taken:

Hazardous material stores

- Outlet secure/locked
- Bund empty
- Fire extinguisher serviced and accessible
- Secure area from accidental damage
- Emergency and management contact details displayed
- Adequate ventilation

Safety

- All trenches and manholes are secured
- Fencing and barriers in place as per the Occupational Health and Safety Act
- Emergency and management contact details displayed

- Material stockpile wedged/secured

Erosion

- Wind and dust mitigation in place
- Slopes and stockpiles at stable angle
- Re-vegetated areas water schedules and supply secured

Water contamination and pollution

- Cement and material stores secured
- Toilets emptied and secured
- Refuse bins empty and secured
- Structures vulnerable to high winds secured
- No stockpiles, equipment or machinery left within 100m of the watercourse and within a drainage line.

2.6.2. Permanent Site Closure-Decommissioning**1. Landscape and Visual Aspects**

- Decommissioning activities should be strictly into the already disturbed project specific sites/areas.
- Rehabilitation and re-vegetation should be done immediately after removal of the structures.
- Rehabilitation should only use indigenous vegetation.
- All other rehabilitation structures should be materials that blend with the natural surroundings in terms of colour, and appearance.

2. Impact on Soil

- Contractor and any other personnel should keep within the existing project alignment and are to use only existing access roads.
- The duration of exposed soil must be kept to a minimum and rehabilitation should be done as soon as the stripping or demolition of the structures has been completed.
- The area must be stabilized to control erosion. Anti-erosion berms should be installed at appropriate intervals along the pipeline area.
- Rehabilitated areas should be prevented against soil erosion and growth of alien invasive vegetation.
- Stormwater should be diverted away from entering the water treatment works area, by means of a natural berm upslope or by other appropriate means.
- The area should be monitored during the Defect Liability Period to ensure that no erosion occurs, nor that any alien invasive species should gain a foothold in the area.

3. Impact on indigenous vegetation

- Existing footpaths and access roads should be used for all traversing activities.
- Alien invasive vegetation should be removed on the construction footprint, preferably by hand or mechanical means.
- Exposed areas should be re-vegetated with a suitable grass seed mix of indigenous species upon completion of project activities.

4. Alien invasive vegetation

- Construction site should be rehabilitated immediately (within a week) after construction has been completed;
- Establishment or spread of alien vegetation on site must be monitored and the correct removal and disposal method must be followed.

5. Water Pollution

- Use of the natural surround (forest, bushes, open veld, dongas, etc.) as ablutions must be forbidden.
- The diesel generator area at the abstraction point and at the water treatment works should be bunded to contain spillages.
- Chemicals are to be stored in a bunded area and labelled.
- Spills are to be cleared immediately and contaminated material disposed of at an appropriately permitted disposal site.
- Spills greater than 10L or which occur in areas where ground or surface water may be affected are to be reported to the Competent Authority (Department of Water & Sanitation) within 24hrs;
- There should be spill kits on site.
- Should cement be used during rehabilitation, cement should be mixed on an appropriately lined surface or on mixing trays and not directly on the ground. Cement mixing trays and other equipment should be located at a distance whereby nearby drainage line will not be impacted on.

6. Solid Waste

- Weatherproof and scavenger proof bins/skips should be used to collect solid waste.
- Waste minimisation, re-use and recycling must be encouraged. Waste should be ensured that it is sorted in appropriate receptacles (i.e. separate bins for glass, plastic/cardboard, paper, cans/tins/metals, green waste, and other items) before transportation and disposal, to facilitate waste minimization, waste reclamation and re-use.
- Inert building rubble may be locally used for purposes such as road rehabilitation and erosion control.
- Hazardous materials or substances will be collected into a designated container/containment area and disposed of appropriately in a registered hazardous waste disposal site. The nearest hazardous waste disposal site is at East London.
- Safe disposal certificates to be obtained for all hazardous wastes leaving the site.

7. Fire Outbreaks

- A fire-belt should be made and continuously maintained around the camp site and storage area.
- Dedicated smoking areas should be set aside at the working area. Penalties should be imposed to those found smoking outside smoking zones;
- A "No-smoking" sign is to be placed in areas used where there may be fire risk (oil/fuel storage areas, near dry vegetation, etc.);
- Basic fire-fighting equipment (rubber beater and fire extinguisher) shall be readily available on site.

8. Noise

- Modern low noise emission vehicles and equipment shall be used during the decommissioning of the WTW and Pumping facilities.
- All working equipment and machinery to be fitted with silencers yielding a maximum ambient noise level of 80 dBA;
- Decommissioning work should be restricted to normal daytime working hours (07:00 – 17:00). No activities will take place during weekday evenings and night-time (after 17:00), on Saturdays after midday (12:00) and the entire day on Sundays.
- All noise-making equipment shall be turned off when not in use.
- All equipment shall be kept in good working order.
- All equipment shall be operated within specifications and capacity (i.e. do not overload and overrun machines).
- Compliance with the appropriate legislation with respect to noise is mandatory.

9. Socio-economic issues

- Prior to decommissioning the surrounding community must be notified and decommissioning must take place only during working hours.
- Unskilled labour should be sourced from the local community.
- Semi-skilled and skilled labour could also be sourced from the local area depending on availability.

**ANNEXURE A
PROFOMA: PROTECTION OF THE ENVIRONMENT
To be signed by Contractor**

Employer:

Contract Number:

Contract Title:

PROTECTION OF THE ENVIRONMENT

The contractor should not be given the right to access the site until this form has been signed.

I.....as Contractor, record as follows:

1. I, the undersigned, do hereby declare that I am aware of the increasing requirement by society that construction activities shall be carried out with due regard to their impact on the environment.
2. In view of this requirement by society and a corresponding requirement by the Employer with regard to this contract, I will, in addition to complying with the letter of the terms of the contract dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting the appropriate employees, plant, materials, and methods of construction, in so far as I have the choice, include the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I recognize and accepts the need to abide by the 'precautionary principle' which aims to ensure the protection of the environment by the adoption of the most environmentally friendly construction approach in the face of uncertainty with regard to the environmental implications of construction.
3. I acknowledge and accept the right ofto deduct, should they so wish, from any amounts due to me, such amounts (herein referred to as fines) as the Project Manager and Environmental Control Officer shall certify as being warranted in view of my failure to comply with terms of the Contract dealing with protection of the environment subject to the following;
 - 3.1. The Project Manager and Environmental Control Officer, in determining the amount of such fine, shall take into account, inter alia, the nature of the offence, the seriousness of the impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements, and in particular, the extent to which he/she considers it necessary to impose a sanction in order to eliminate/reduce future occurrences.
 - 3.2. The Project Manager shall, with respect to any fine imposed, provide me with a written statement giving details of the offence, the facts on which the Resident Engineer and Environmental Officer has based his assessment and the terms of the Contract (by reference to specific clause) which has been contravened.

SIGNED.....
Contractor

DATE:.....

ANNEXURE B

METHOD STATEMENT TEMPLATE

METHOD STATEMENT

CONTRACT:.....**DATE:**.....

PROPOSED ACTIVITY (Title of Method Statement and Reference Number from the EMPr):

WHAT WORK IS TO BE UNDERTAKEN (A brief description of the works):

WHERE ARE THE WORKS TO BE UNDERTAKEN (where possible, provide an annotated plan and a full description of the extent of the works):

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start Date

End Date:

HOW ARE THE WORKS TO BE UNDERTAKEN (provide as much detail as possible, including annotated sketches/ plans where possible):

DECLARATIONS

1). ENVIRONMENTAL CONSULTANT

The work described in this Method Statement, if carried out according to the methodology described, is satisfactorily mitigated to prevent avoidable environmental harm:

.....
 (Signed) (print name)

Dated:.....

2). PERSON UNDERTAKING THE WORKS

I understand the contents of this Method Statement and the scope of the works required of me. I further understand that this Method Statement may be amended on application to other signatories and that the Project Manager will audit my compliance with the contents of this Method Statement:

.....
(signed) **(print name)**

Dated:.....

3). APPROVING AUTHORITY (i.e. Project Manager)

The works described in this Method Statement are approved.

.....
 (signed) (Print name)

Dated:.....

ANNEXURE C: ENVIRONMENTAL INCIDENT REGISTER

DATE:	File Ref:
NAME:	Copy to:
EXACT LOCATION OF INCIDENT:	

SECTION 1: DESCRIPTION OF INCIDENT

SECTION 2: REMEDIAL ACTION REQUIRED

Remedial Action Due Date:.....
 Confirmation of Implementation: Name:.....Date:.....

SECTION 3: RELEVANT DOCUMENTATION

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SECTION 4: SIGNATURES

<p>Engineer:</p> <p>.....</p> <p>Name:</p> <p>Date:</p>
<p>Environmental Control Officer:</p> <p>Name: Date:.....</p>

SECTION 5: DRAWING/SKETCH

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APPENDIX D: PENALTIES/FINES FOR NON-COMPLIANCE

The Contractor/subcontractors must contact the ECO at any stage if unsure about any matter, or if a pollution incident occurs, vegetation is damaged or animals harmed.

S No.	Phase	Penalty for Non-compliance	
		Bottom of Range	Top of Range*
A	Pre-Construction Phase		
1.	Construction area to be demarcated before construction starts.	R500.00	R5 000.00
2.	The demarcated area must be maintained throughout the construction phase	R500.00	R1 000.00
3.	Stockpiling area for building material must be Demarcated.	R500.00	R2 000.00
4.	Failure to stockpile material correctly.	R500.00	R2 000.00
5.	Site area for storing of waste material must be demarcated	R500.00	R2 000.00
6.	Method statements shall be provided by the contractor, reviewed by the ECO and approved by the Engineer. No work shall commence until the method statement is accepted by the ECO and engineer.	R1 000.00	R5 000.00
B.	Construction Phase		
B1.	Construction crew behaviour	R50.00	R2 000.00
7.	No amplified music allowed on site	R50.00	R1 000.00
8.	Driving, parking and storing of machinery and vehicles are only allowed inside demarcated areas and existing roads.	R500.00	R5 000.00
9.	Removal of vegetation outside of construction footprint ('no go' area) without ECO's permission.	R500.00	R5 000.00

10.	Individual who causes unnecessary damage to flora and fauna on, around or near the construction site.	R50.00	R500.00
11.	No littering allowed (incl. cigarette butts)	R50.00	R200.00
B2	Excavations		
12.	No topsoil that was not specified and/or lies outside the demarcated area may be removed or altered.	R500.00	R2 000.00
13.	All surplus material to be removed from site shall be disposed of at approved site	R500.00	R2 000.00
B3	Toilets		
14.	Failure to provide adequate sanitation	R1 000.00	R5 000.00
15.	Toilets to be secured to prevent them from falling or being blown over	R100.00	R500.00
16.	Toilets must be serviced regularly, (according to the manufacturer's instructions) and kept clean	R100.00	R1 000.00
17.	Individuals not making use of the provided ablution facilities	R50.00	R200.00
B4	Fire Prevention		
18.	All mandatory fire-fighting equipment (as specified at startup) shall be on site at all times	R200.00	R2 000.00
19.	Fire-fighting equipment to be in good working order and serviced	R200.00	R1 000.00
20.	No fires, including cooking fires, allowed on site, except on demarcated areas approved by ECO.	R100.00	R2 000.00
B5	Hazardous substances		
21.	Concrete and slurry batching may only be executed within the boundaries of the demarcated area and/or where agreed on by the ECO.	R500.00	R2 000.00
22.	Any cement, concrete, bitumen or slurry product spillage to be cleaned up immediately.	R500.00	R5 000.00
23.	Oil spills must be cleaned up immediately	R500.00	R5 000.00
24.	Persistent and unrepaired oil leaks from machinery and vehicles. The use of inappropriate methods for refueling such as the use of a funnel rather than a pump.	R1 000.00	R5 000.00
B5	Dust Control		
25.	Construction area must be watered when dust becomes problematic.	R100.00	R1 000.00
B6	Waste Control		
26.	Sufficient refuse bins shall be placed on site	R100.00	R1 000.00
27.	Refuse bins shall be cleaned on a regular basis	R100.00	R500.00
28.	General litter/building refuse shall be cleaned regularly from the site.	R100.00	R1 000.00
29.	Store all refuse & waste material in wind and animal proof containers.	R100.00	R1 000.00
30.	Waste shall be disposed of at an appropriately licensed waste disposal site on a regular interval.	R500.00	R4 000.00
31.	The absence of or inadequate drip trays or bunding facilities.	R200.00	R2 000.00
B6	Herbicides		
32.	Use of herbicides or pesticides without ECO's permission.	R500.00	R5 000.00
B7	Generators and fuel powered equipment		
33.	A watertight cover shall be placed under the power generator equipment to prevent accidental spillage of fuel and oil seeping into the soil.	R500.00	R5 000.00
34.	Drip tray shall have capacity for at 120 % of fuel in generator.	R200.00	R2 000.00
35.	All waste material generated from the use of this equipment shall be contained and removed from the site by supplier.	R500.00	R4 000.00
36.	Mobile fuel powered equipment shall be well-maintained and shall not have any fuel or oil leaks.	R200.00	R2 000.00
B8	Soil Erosion		
	Failure to redress soil erosion within the construction footprint	R500.00	R5 000.00
B9	Trees		
37.	Damage to indigenous trees and trees not declared as invader trees that are to be retained on site.	R500.00	R5 000.00

B10	Rehabilitation		
38.	Failure to remove old/excess concrete, bitumen products, slurry and alien materials from site.	R500.00	R5 000.00
39.	Failure to clear the site of all waste and building material after construction.	R500.00	R5 000.00
40.	Failure to reinstate disturbed areas within specified time period.	R500.00	R5 000.00
41.	Failure to rehabilitate disturbed areas within 3 months of completion.	R1 000.00	R5 000.00

*- Large scale or repeated offence

1. Where the Contractor inflicts irreparable damage upon the environment or fails to comply with any of the environmental specifications, they shall be liable to pay a penalty fine over and above any other contractual consequence. [In terms of the Conventional Penalties Act (1962) a creditor is not entitled to recover both the penalty and damages. Accordingly, where a Contractor causes damage, the Employer can either enforce a penalty or make the Contractor make good the damage, but not both.]
2. The Contractor is deemed NOT to have complied with this specification if:
 - a) Within the boundaries of the construction area and haul/access roads there is evidence of contravention of the specification;
 - b) Environmental damage ensues due to negligence;
 - c) The Contractor fails to comply with corrective or other instructions issued by the Engineer within a specific time; and
 - d) The Contractor fails to respond adequately to complaints from the public.
3. Payment of any fines in terms of the contract shall not absolve the offender from being liable from prosecution in terms of any law.
4. The Contractor shall act immediately after a notice of non-compliance is received, and correct the cause for the issuing of the notice. Application of a penalty clause will apply for incidents of non-compliance. The imposition of such a penalty shall not preclude the relevant provincial authority from applying an additional penalty in accordance with statutory powers.
5. Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as deemed fit. The polluter-pays principle applies.

The “polluter-pays” principle provides that “the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment. NEMA imposes a duty of care on every person who causes, has caused or may cause significant pollution or degradation of the environment to prevent such pollution or degradation from occurring, continuing or recurring. Insofar as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, NEMA requires that the pollution must be minimised and rectified.

Furthermore NEMA makes provision for damages to be awarded by the courts where loss or damage has occurred as a result of a contravention of certain environmental statutes. For example, offences under the National Water Act (Act No. 36 of 1998) and the Environmental Conservation Act (Act No. 73 of 1989) may result in penalties being imposed in terms of NEMA. Importantly, NEMA provides for the liability on conviction of employees, managers, agents and directors for any offences resulting from the failure to take all the reasonable steps that were necessary under the circumstances to prevent the commission of an offence.

C4 SITE INFORMATION

The following is a brief description of work to be done for Nyandeni, Thukela and Luqolweni villages water supply scheme

No.	LM	TOWN	SCHEME NAME	ACTIVITY
1	Mhlontlo local municipality	Qumbu	Nyandeni, Thukela and Luqolweni villages water supply scheme	Construction of water reticulation, rising mains, valves and associated chambers, route markers, communal standpipes, reservoirs, pump rooms and equipping of boreholes.

C5 TENDER DRAWINGS