

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY



APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES **IN WAKKERSTROOM WARD 5**

T12/2026

TENDER DOCUMENT

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

Private Bag X9011

VOLKSRUST, 2470

Tel: +27 (0) 17 734 6100

Fax: +27 (0) 86 630 2209

NAME OF TENDERER:

ADDRESS:

.....

CONTACT PERSON:

TELEPHONE:

EMAIL ADDRESS:

TOTAL BID PRICE (INCL. VAT):

CLOSING DATE: Wednesday, 23 September 2026 at 12:00

T1.1 TENDER NOTICE AND INVITATION TO TENDER



DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

TENDER T12/2026: APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF BOREHOLES WAKKERSTROOM IN WARD 5

CLOSING DATE AND TIME: Wednesday, 23 September 2026 at 12:00

Tenders are hereby invited from Local SMME's, emerging contractors and co-operatives to submit bids for the **TENDER T07/2026: APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF BOREHOLES WAKKERSTROOM IN WARD 5**. Tenders should have a CIDB contractor grading of 3CE.

Tender documents will be obtainable from Tuesday, **Tuesday, 08 September 2026** at the Finance Department (Volksrust Offices) upon payment of a non-refundable tender levy of **R649.20** or may be downloadable free of charge from www.etenders.gov.za. Only bank guaranteed cheques or cash will be accepted.

There will be no compulsory briefing session.

Duly completed tenders must be sealed in an envelope clearly marked: "**MUNICIPAL MANAGER, DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY, TENDER T05/2027: APPOINTMENT OF A CONTRACTOR FOR HE DRILLING OF BOREHOLES WAKKERSTROOM IN WARD 5. CLOSING DATE: Wednesday, 23 September 2026 at 12:00**" must be placed in the tender box at Dr Pixley Ka Seme Local Municipality offices, c/o Adelaide Tambo Street & Dr Nelson Mandela Drive in Volksrust not later than **12:00 PM** when tenders will be opened in public.

Late tenders, incomplete tender documents and tenders per email or fax will not be accepted and the Dr Pixley Ka Isaka Seme Local Municipality does not bind itself to accept the lowest or any tender. Dr Pixley Ka Isaka Seme Local Municipality reserves itself the right to accept a tender as a whole or in part.

All administrative enquiries can be directed to **Ms Melody Ralinotsi at 017 734 6100** and the technical enquiries can be directed to **Mr Cedric Mohoto at 017 734 600**.

FI MOFOKENG
ACTING MUNICIPAL MANAGER

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DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

**TENDER T05/2027: APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF
BOREHOLES WAKKERSTROOM IN WARD 5.**

T1.2 Bid Data

The conditions of Bid are the Standard Conditions of Bid as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Bidders as an Annex to this Bid Data

The Standard Conditions of Bid make several references to the Bid Data for details that apply specifically to this Bid. The Bid Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Bid. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Bid to which it mainly applies.

The additional conditions of Bid are:

Clause number	Bid Data
F.1.1	The employer is the DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY.
F.1.2	The Bid documents issued by the employer comprise: T1.1 Bid notice and invitation to Bid T1.2 Bid data T2.1 List of returnable documents T2.2 Returnable schedules Part 1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Adjudicator's appointment Part 2: Pricing data C2.1 Pricing instructions C2.2 Bill of Quantities Part 3: Scope of work C3 Scope of work Part 4: Site information C4.1 Site information C4.2 Geotechnical Investigation C4.3 Photographs of existing road Appendices Annexure A : Schedule of Personnel and Employer Annexure B : Preliminary Programme Annexure C : Financial Details, Statements and Bank reference Annexure D : Special Conditions of Contracts Annexure E : Drawings for Tender

F.1.4	The employer's details are: Name: Dr. Pixley Ka Isaka Seme Local Municipality Address: c/o Adelaide Tambo & Dr. Nelson Mandela Drive Volksrust, 2470 Tel: 017 734 6100 Fax: 086 630 2209 E-mail: records@pixleykaseme.gov.za The employer's agent is: Name: Zenkcon Engineers Office 41, Norma Jean Square 21 Bermini Street Centurion, Gauteng 0157 Cell: 012 001 5300 Email: office@zenkcon.co.za
F.2.1	Only those Bidders who have in their employment management and supervisory staff satisfying the requirements of the Scope of Work for labour intensive competencies for supervisory and management staff are eligible to submit Bids.

Standard Conditions of Bid

(As contained in Annexure F of the CIDB Standard for Uniformity in Construction Procurement)

F.1 General

F.1.1 Actions

The employer and each Bidder submitting a Bid offer shall comply with these conditions of Bid. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently.

F.1.2 Bid Documents

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

F.1.3 Interpretation

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

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

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

- a) **comparative offer** means the Bidder's financial offer after the factors of non-firm prices, all unconditional discounts and any other Bided parameters that will affect the value of the financial offer have been taken into consideration
- b) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the Bid process; and
- c) **fraudulent practice** means the misrepresentation of the facts in order to influence the Bid process or the award of a contract arising from a Bid offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- d) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs

F.1.4 Communication and employer's agent

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

F.1.5 The employer's right to accept or reject any Bid offer

F.1.5.1 The employer may accept or reject any variation, deviation, Bid offer, or alternative Bid offer, and may cancel the Bid process and reject all Bid offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a Bidder for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a Bid process or the rejection of all responsive Bid offers re-issue a Bid covering substantially the same scope of work within a period of six months unless only one Bid was received and such Bid was returned unopened to the Bidder.

F.2 Bidder's obligations

F.2.1 Eligibility

Submit a Bid offer only if the Bidder complies with the criteria stated in the Bid data and the Bidder, or any of his principals, is not under any restriction to do business with employer.

F.2.2 Cost of Biding

Accept that the employer will not compensate the Bidder for any costs incurred in the preparation and submission of a Bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

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

F.2.5 Reference documents

Obtain, as necessary for submitting a Bid 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 Bid documents by reference.

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

Attend a **compulsory clarification meeting** at which Bidders may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Bid data.

F.2.8 Seek clarification

Request clarification of the Bid documents, if necessary, by notifying the employer at least five working days before the closing time stated in the Bid data.

F.2.9 Insurance

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

F.2.10 Pricing the Bid offer

F.2.10.1 Include in the rates, prices, and the Bided total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful Bidder, such duties, taxes and levies being those applicable 14 days before the closing time stated in the Bid data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the Bided total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Bid data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not make any alterations or additions to the Bid documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the Bidder. All signatories to the Bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative Bid offers

F.2.12.1 Submit alternative Bid offers only if a main Bid offer, strictly in accordance with all the requirements of the Bid documents, is also submitted. The alternative Bid offer is to be submitted with the main Bid offer together with a schedule that compares the requirements of the Bid documents with the alternative requirements the Bidder proposes.

F.2.12.2 Accept that an alternative Bid offer may be based only on the criteria stated in the Bid data or criteria otherwise acceptable to the employer.

F.2.13 Submitting a Bid offer

F.2.13.1 Submit a Bid offer to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the Bid data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Submit the parts of the Bid offer communicated on paper as an original plus the number of copies stated in the Bid data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the Bid offer where required in terms of the Bid data. The employer will hold all authorized signatories liable on behalf of the Bidder. Signatories for Bidders proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the Bid offer.

F.2.13.5 Seal the original and each copy of the Bid offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Bid data, as well as the Bidder's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the Bid data, place and seal the returnable documents listed in the Bid data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the Bid data, as well as the Bidder's name and contact address.

F.2.13.7 Seal the original Bid offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the Bid data.

F.2.13.8 Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the Bid offer if the outer package is not sealed and marked as stated.

F.2.14 Information and data to be completed in all respects

Accept that Bid 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.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the Bid offer at the address specified in the Bid data not later than **Wednesday, 23 September 2026 at 12:00** as stated in the Bid data. Proof of posting shall not be accepted as proof of

delivery. The employer shall not accept Bid offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the Bid data.

F.2.15.2 Accept that, if the employer extends the closing time stated in the Bid data for any reason, the requirements of these conditions of Bid apply equally to the extended deadline.

F.2.16 Bid offer validity

F.2.16.1 Hold the Bid offer(s) valid for acceptance by the employer at any time during the validity period stated in the Bid data after the closing time stated in the Bid data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the Bid data for an agreed additional period.

F.2.17 Clarification of Bid offer after submission

Provide clarification of a Bid offer in response to a request to do so from the employer during the evaluation of Bid 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 total of the prices or substance of the Bid offer is sought, offered, or permitted. The total of the prices stated by the Bidder shall be binding upon the Bidder.

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

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the Bid offer, the Bidder'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 Bidder 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 Bid offer as non-responsive.

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

F.2.19 Inspections, tests and analysis

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

F.2.20 Submit securities, bonds, policies, etc.

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

F.2.21 Check final draft

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

F.2.22 Return of other Bid documents

If so instructed by the employer, return all retained Bid documents within 28 days after the expiry of the validity period stated in the Bid data.

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to clarification

Respond to a request for clarification received up to five working days prior to the Bid closing time stated in the Bid Data and notify all Bidders who drew procurement documents.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the Bid documents to each Bidder during the period from the date of the Bid Notice until seven days before the Bid closing time stated in the Bid Data. If, as a result a Bidder applies for an extension to the closing time stated in the Bid Data, the Employer may grant such extension and, will then notify it to all Bidders who drew documents.

F.3.3 Return late Bid offers

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

F.3.4 Opening of Bid submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid Bid submissions in the presence of Bidders' agents who choose to attend at the time and place stated in the Bid data. Bid submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the opening held immediately after the opening of Bid submissions, at a venue indicated in the Bid data, the name of each Bidder whose Bid offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main Bid offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested people upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the Bid data that a two-envelope system is to be followed, open only the technical proposal of valid Bids in the presence of Bidders' agents who choose to attend at the time and place stated in the Bid data and announce the name of each Bidder whose technical proposal is opened.

F.3.5.2 Evaluate the quality of the technical proposals offered by Bidders, then advise Bidders who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of Bidders, who score in the quality evaluation above the minimum number of points for quality stated in the Bid data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to Bidders whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to Bidders, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of Bid offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful Bidder.

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

Determine, on opening and before detailed evaluation, whether each Bid offer properly received:

- a) meets the requirements of these Conditions of Bid,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the Bid documents.

A responsive Bid is one that conforms to all the terms, conditions, and specifications of the Bid documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- Detrimentially affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- change the Employer's or the Bidder's risks and responsibilities under the contract, or
- affect the competitive position of other Bidders presenting responsive Bids, if it were to be rectified.

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

F.3.9 Arithmetical errors

Check responsive Bid offers for arithmetical errors, correcting them in the following manner:

- Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- If a bill of quantities (or schedule of rates) applies 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 will be corrected.
- 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 Bidder's addition of prices, the total of the prices shall govern and the Bidder will be asked to revise selected item prices (and their rates if a bills of quantities applies) to achieve the Bided total of the prices.

Consider the rejection of a Bid offer if the Bidder does not correct or accept the correction of his arithmetical errors in the manner described above.

F.3.10 Clarification of a Bid offer

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

F.3.11 Evaluation of Bid offers

F3.11.1 General

Appoint an evaluation panel of not less than three people. Reduce each responsive Bid offer to a comparative offer and evaluate it using the Bid evaluation method that is indicated in the Bid Data and described below:

Method 1: Financial offer	1) Rank Bid offers from the most favorable to the least favorable comparative offer. 2) Recommend highest ranked Bidder for the award of the contract unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	1) Score Bid evaluation points for financial offer. 2) Confirm that Bidders are eligible for the preferences claimed and if so, score Bid evaluation points for preferencing. 3) Calculate total Bid evaluation points. 4) Rank Bid offers from the highest number of Bid evaluation points to the lowest. 5) Recommend Bidder with the highest number of Bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Method 3: Financial offer and quality	1) Score quality, rejecting all Bid offers that fail to score the minimum number of points for quality stated in the Bid data. 2) Score Bid evaluation points for financial offer. 3) Calculate total Bid evaluation points. 4) Rank Bid offers from the highest number of Bid evaluation points to the lowest. 5) Recommend Bidder with the highest number of Bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 4: Financial offer, quality and preferences	1) Score quality, rejecting all Bid offers that fail to score the minimum number of points for quality stated in the Bid data. 2) Score Bid evaluation points for financial offer. 3) Confirm that Bidders are eligible for the preferences claimed, and if so, score Bid evaluation points for preferencing. 4) Calculate total Bid evaluation points. 5) Rank Bid offers from the highest number of Bid evaluation points to the lowest. 6) Recommend Bidder with the highest number of Bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Note: Sub-clause F3.11.1 Method 4 will be used for the evaluation of this tender.

FUNCTIONALITY EVALUATION

The following is the criteria that the Bidders will be evaluated for Functionality:

According to the MFMA Circular No. 53 of the Municipal Finance Act No. 56 of 2003, Bidders will also be evaluated on Functionality. The minimum Score for functionality is 60%, 60 points out of 100 as prescribed in the following table. The bidder must score the minimum points in each and every category to show the ability to execute this project.

The quality criteria and maximum score in respect of each of the criteria are as follows:

COMPETENCE ACHIEVEMENT SCHEDULES

TABLE A1: EXPERIENCE, REPUTATION AND REFERENCES

	Name reference with contact details	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1		5		
2		5		
3		5		
4		5		
	SUB-TOTAL: Reputation and References	20		

SCORING QUALITY FOR TABLE A1 ABOVE: (Maximum 20 Points)

- Experience on previous contracts of a project with a similar scope and of similar value completed over last five years.
- Reference details must be valid in order to ensure gathering of relevant information. Experience must be on the Boreholes drilling and equipping.
- The tenderer must submit a completion certificate for each project.
- Points shall be allocated to tenderers who submit both the appointment letter and completion certificate
- Points shall be awarded as follows below for each project completed with a traceable reference:

Required	Points allocation	Proof required.
4 similar construction projects value above R 3 million or more	20 Points	Attach appointment letter and Completion for evaluation.
3 similar construction projects value above R 3 million or more	15 Points	
2 similar construction projects value above R 3 million or more	10 Points	
1 similar construction projects value above R 3 million or more	5 points per project	
No similar work	0 points	

Note: Where appointed project values received from tenderers for consideration exceed the value stated above, a maximum of 5 points shall be awarded per project. Tenderers who do not submit at least one project shall be disqualified and not considered for further evaluation. To score the full 20 points, a minimum of 4 similar projects must be included.

TABLE A2: FINANCIAL REFERENCES

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Bank rating of "C" or better (proof attached)	4		
2	Proof of guarantee/letter of intent from a registered financial institution to the value of 10% of the offer shall be submitted	6		
	SUB-TOTAL: Financial references	10		

SCORING QUALITY FOR TABLE A2 ABOVE- (Maximum 10 Points)

- Proof of Banking Details and Bank Rating Letter of "C" or better must be attached.
- Proof of guarantee/letter of intent from a registered financial institution to the value of 10% of the offer shall be submitted.

Point Allocation:

Failure to Submit Details	Disqualification
Bank Rating of D, E or F	Disqualification
Bank Rating C or better	4 points
Proof of Guarantee/Letter of intent	6 points

A maximum of 10 points shall be allocated for Table A2.

Note: Bank rating and proof of guarantee must be attached. Tenderers who do not submit any of the above required documents shall be disqualified and shall not be considered further evaluation.

TABLE A3: SPECIFIC KNOWLEDGE

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Site agent trained in labour in intensive construction methods	4		
2	Contracts Manager	4		
3	Senior Foreman	4		
4	Quality control Officer	4		
5	Safety Officer	4		
	SUB-TOTAL: Specific Knowledge	20		

SCORING QUALITY FOR TABLE A3 ABOVE - (Maximum 20 Points)

Key Staff

- Site Agent – NQF 6 Qualification and National Diploma in Built Environment or equivalent and minimum of 5 years' relevant experience to score the maximum points in this category.
- Contracts Manager – A BSc/BTech qualification or Higher, minimum 10 years' experience based

on field of expertise under consideration to score the maximum points in this category.

- Senior Foreman – NQF 4 Labor Intensive Construction, minimum 15 years relevant experience to score the maximum points in this category.
- Quality Control Officer – N Dip Civil Engineering, minimum 10 years' experience to score the maximum points in this category.
- Safety Officer – Safety Management Training Course (SAMTRAC) and registration with SACPCMP minimum 5 years or more relevant experience to score the maximum points in this category.

Point Allocation:

Personnel	15 Years' Experience or more	More than 10 Years', Less than 15 Years' Experience	More than 5 Years', Less than 10 Years' Experience	Less than 5 Years' Experience but more than 2	Less than 2 Years' Experience
Site Agent	4	4	3	2	0
Contracts' Manager	4	4	2	0	0
Senior Foreman	4	2	1	0	0
Quality Control Officer	4	4	2	0	0
Safety Officer	4	4	4	2	0

Note: CV's and certified copies of qualifications must be attached in order to qualify for points. Where CVs are attached with no certified copies of qualifications, no point will be awarded. A maximum of 4 points will be awarded for each relevant personnel, and a maximum of 20 points can be awarded in this category.

TABLE A4: PLANT AND EQUIPMENT

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	1 TLB	2		
2	1 LDV Bakkie	2		
3	1 Boreholes Drilling Machine	6		
	Sub-Total	10		

SCORING QUALITY FOR TABLE A4 ABOVE - (Maximum 10 Points)

Points are allocated for the availability of required plant and equipment for the project (proof of ownership to be attached or letter of intent from a hiring company must be attached). There will be no pro-rated points allocated for this section.

Where letters of intent from a hiring company are attached, they should:

- Be letters obtained prior to tender closing.
- not be older than 1 month prior to closing of tender.

- be signed and dated with the company stamp.

Note: No points shall be allocated for unsigned letters which do not fulfil the above requirements.

TABLE A5: PROJECT EXECUTION PLAN

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Methodology	4		
2	Organogram	4		
3	Health and Safety Plan	4		
4	Project Implementation Plan	4		
5	Programme	4		
	Sub-Total	20		

SCORING QUALITY FOR TABLE A5 ABOVE - (Maximum 20 Points)

Points are allocated for the Methodology, Organogram, Health and Safety Plan, Stormwater Management Plan and Programme respectively.

Points will be allocated for each document listed in table 4 as per below:

Excellent	The method statement, organogram, stormwater management report, health and safety plan and programme are specifically tailored for the project objectives and requirements, and deals in detail with the critical construction aspects	4 points
Good	The method statement, organogram, stormwater management report, health and safety plan and programme are generally tailored for the project objectives and requirements, and deals with the construction aspects	3 points
Satisfactory	The method statement, organogram, stormwater management report, health and safety plan and programme are generic and has been tailored to meet the project objectives and requirements without dealing with construction aspects	2 points
Poor	The method statement, organogram, stormwater management report, health and safety plan and programme are poor and does not adequately identify / satisfy project objectives or requirements. The tenderer has misunderstood the scope of work and did not deal with construction aspects	1 point
No submission	The tenderer does not submit the Project Execution Plan	0 points

Note: The Project Engineer will evaluate each of these submitted documents and shall determine the quality based on the scoring criteria above. A maximum of 20 points will be awarded in this category.

TABLE A6: QUALITY ASSURANCE AND CONTROL PLAN

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Quality Plan Report	10		
	Sub-Total	10		

SCORING QUALITY FOR TABLE A6 ABOVE - (Maximum 10 Points)

TABLE A7: QUALITY MANAGEMENT SYSTEM

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Quality Management Report	10		
	Sub-Total	10		

SCORING QUALITY FOR TABLE A7 ABOVE - (Maximum 10 Points)

TABLE A8: FUNCTIONALITY AND QUALITY SCORING TOTALS

Scoring as per Tables A1 to A7 above.		Maximum Points to be Allocated	Points Claimed by Tenderer	Allocated Points
Functionality and Quality	Table A1	20		
	Table A2	10		
	Table A3	20		
	Table A4	10		
	Table A5	20		
	Table A6	10		
	Table A7	10		
	Sub Total	100		

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR THE RE-GRAVELLING OF GRAVEL ROADS AND REHABILITATION OF STORMWATER SYSTEMS IN WARD 5

T2.1 List of Returnable Documents

The Bidder must complete the following returnable documents:

1 Returnable Schedules required only for Bid evaluation purposes

- Certificate of authority for joint ventures (where applicable)
- Compulsory Enterprise Questionnaire
- Record of Addenda to Bid Documents
- Proposed Amendments and Qualifications
- Schedule of Subcontractors
- Schedule of Plant and Equipment
- Schedule of the Bidder's Experience
- Municipal statement on Bidder's rates and taxes

2 Other documents required only for Bid evaluation purposes

- completed tender documents;
- a company profile;
- a company registration certificate;
- certified ID copies of the company's shareholders, members, trustees, etc
- a valid tax clearance certificate;
- a proposed construction / works programme;
- letter confirming a signatory of authority
- CIDB registration certificate (3CE or higher)
- an original B-BBEE certificate; and
- proof of purchase of the Bid document (i.e. copy of the receipt)

3 Returnable Schedules that will be incorporated into the contract

- Preferencing Schedule (direct preferences)

4 Other documents that will be incorporated into the contract

5 The offer portion of the C1.1 Offer and Acceptance

6 C1.2 Contract Data (Part 2)

7 C2.2 Bill of quantities

Record of Addenda to Bid documents

We confirm that the following communications received from the Employer before the submission of this Bid offer, amending the Bid documents, have been taken into account in this Bid offer:			
	Date	Title or Details	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Attach additional pages if more space is required.			
Signed		Date	
Name		Position	
Bidder			

Certificate of Authority for Joint Ventures

This Returnable Schedule is to be completed by joint ventures.

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

NAME OF FIRM	ADDRESS	DULY AUTHORIZED SIGNATORY
Lead partner		Signature. Name Designation
		Signature. Name Designation
		Signature. Name Designation
		Signature. Name Designation

Schedule of Proposed Subcontractors

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			
Signed		Date	
Name		Position	
Bidder			

Schedule of Plant and Equipment

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

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired or acquired for this contract if my/our Bid is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Bidder			

Schedule of the Bidder's Experience

The following is a statement of similar work successfully executed by myself/ourselves:

Employer, contact person and telephone number.	Description of Contract and Scope of Work	Value of work inclusive of VAT (Rand)	Date completed

Signed		Date	
Name		Position	
Bidder			

Proposed amendments and qualifications

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

The Bidder's attention is drawn to clause F.3.8 of the Standard Conditions of Bid referenced in the Bid Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed		Date	
Name		Position	
Bidder			

MBD1

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE <i>(NAME OF MUNICIPALITY/ MUNICIPAL ENTITY)</i>				
BID NUMBER:	T05/2027	CLOSING DATE:	23 September 2026	CLOSING TIME:
DESCRIPTION				

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX
SITUATED AT *(STREET ADDRESS)*

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:		OR CSD No:
1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		2. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED? ☐ Yes ☐ No [IF YES, ANSWER PART B:3]
3. TOTAL NUMBER OF ITEMS OFFERED			4. TOTAL BID PRICE R
5. SIGNATURE OF BIDDER			6. DATE
7. CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:

DEPARTMENT	Supply Chain Management Unit	TECHNICAL INFORMATION MAY BE DIRECTED TO:	
CONTACT PERSON	Ms Melody Ralinotsi	CONTACT PERSON	Mr Menzi Nene
TELEPHONE NUMBER	017 734 6100	TELEPHONE NUMBER	017 734 6100
FACSIMILE NUMBER	086 630 2209	FACSIMILE NUMBER	086 630 2209
E-MAIL ADDRESS	melodyr@pixleykaseme.gov.za	E-MAIL ADDRESS	menzin@pixleykaseme.gov.za

PART B TERMS AND CONDITIONS FOR BIDDING

8. BID SUBMISSION:										
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR ONLINE 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.										
9. 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.										
10. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS										
<table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> <tr> <td>3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?</td> <td style="text-align: right;">☐ YES ☐ NO</td> </tr> </table> 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.	3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO	3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO	3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO	3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO	3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO									
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO									
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO									
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO									
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO									

**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:

TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

1. In order to meet this requirement bidders are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
2. SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
3. The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
4. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
6. Applications for the Tax Clearance Certificates may also be made via e-Filing. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state*.
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 and/or take an oath declaring his/her interest.

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

3.1 Full Name:

3.2 Identity Number:

3.3 Company Registration Number:

3.4 Tax Reference Number:

3.5 VAT Registration Number:

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

3.6.1 If so, furnish particulars.

.....

* 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.

.....

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

3.7.1 If so, furnish particulars.

.....
.....

3.8 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**

3.8.1 If so, furnish particulars.

.....
.....

3.9 Are you, aware of any relationship (family, friend, other) between a 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**

3.9.1 If so, furnish particulars.

.....
.....

3.10 Are any of the company's directors, managers, principal shareholders or stakeholders in service of the state? **YES/NO**

3.9.1 If so, furnish particulars.

.....
.....

3.11 Are any spouse, child or parent of the company's directors, managers, principal shareholders or stakeholders in service of the state? **YES / NO**

3.11.1 If so, furnish particulars.

.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

MBD 6.1

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

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

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

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

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

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

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) \end{array}$$

Where

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

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

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) \end{array}$$

Where

Ps = Points scored for price of tender under consideration
Pt = Price of tender under consideration
Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement

Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
At least 51% Black	4	
At least 51% Youth	4	
At least 51% Woman	4	
People with disabilities	3	
Locality - Dr Pixley Ka Isaka Seme LM	5	
TOTAL	20	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. 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]

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

- 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:	
	
	
	

MBD 7.2

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

WITNESSES

1

2

DATE:

MBD 7.2

CONTRACT FORM - RENDERING OF SERVICES

PART 1 (TO BE FILLED IN BY THE PURCHASER /THE MUNICIPALITY)

1. I..... in my capacity as accept your bid under reference number dated for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

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	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). 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.	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		

Item	Question	Yes	No
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? 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.	Yes ☐	No ☐
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		
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 ☐	No ☐
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 ☐	No ☐
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 bids 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:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____
that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or 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.
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

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.

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

**APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF BOREHOLES IN WAKKERSTROOM IN
WARD 5**

C1.1 Form of Offer and Acceptance

Offer

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

Bid: TENDER T05/2027 APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF BOREHOLES IN WAKKERSTROOM IN WARD 5

The Bidder, identified in the offer signature block, has examined the documents listed in the Bid data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of Bid.

By the representative of the Bidder, deemed to be duly authorized, signing this part of this form of offer and acceptance, the Bidder 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 Bidder before the end of the period of validity stated in the Bid data, whereupon the Bidder becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature Date

Name

Capacity

for the Bidder

(Name and
address of
organization)

Name and
signature
of witness

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the Bidder'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 Bidder's offer shall form an agreement between the employer and the Bidder upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1: Agreements and contract data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work.
- Part C4: Site information

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

Deviations from and amendments to the documents listed in the Bid data and any addenda thereto as listed in the Bid schedules as well as any changes to the terms of the offer agreed by the Bidder 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.

The Bidder 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. Failure to fulfill 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 Bidder receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Bidder (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature Date

Name

Capacity

**for the
Employer** THE MUNICIPAL MANAGER
DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY
Private Bag X9011
VOLKSRUST
2470

Name and
Signature

of witness
Date

Schedule of Deviations

1 Subject

Details
.....
.....
.....
2 Subject
Details
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.....
.....
3 Subject
Details
.....
.....
.....
4 Subject
Details
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.....
.....
5 Subject
Details
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.....
.....
.....
By the duly authorised representatives signing this agreement, the employer and the Bidder agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Bid data and addenda thereto as listed in the Bid schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder 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 Bid documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

C1.2 Contract Data

The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering, is applicable to this contract Drawings. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel 011-805 5947).

The 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.

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.

The variations to the General Conditions of Contract are:

- 4.5.2 Replace the term "Safety" with "Occupational Health and Safety"
- 49.6.1 to 4.9.6.3 Replace the term "Bank" with "Bank or Insurance Company"
- 55.1.8 Replace sub-clause with:
The Contractor or anyone on his behalf or in his employ would pay, offer or offer as payment to any person in the employ of the Employer, or in the employ of the Engineer, a gratuity or reward or commission.

The additional clauses to the General Conditions of Contract are:

Extensions of time in respect of clause 42 in respect of abnormal rainfall shall be calculated using the following formula for each calendar month or part thereof:

42
$$V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$$

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 a rainfall of 10 mm or more has been recorded.

Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records, as stated in the Site Information, on which a rainfall of 20mm or more has been recorded for the calendar month.

Rw = Actual average rainfall in mm recorded for the calendar month under consideration.

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

For purposes of the Contract Nn, Rn, X and Y shall have those values assigned to them in the Appendix and/or the Specification.

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

The total extension of time shall be the algebraic sum of all monthly totals for the period under consideration, but if the total is negative the time for completion shall not be reduced due to abnormal rainfall.

Extensions of time for part of a month shall be calculated using pro rata values of Nn and Rn. This formula does not take account flood damage which could cause further or concurrent delays and will be treated separately as far as extension of time is concerned.

The factor (Nw – Nn) shall be considered to represent a fair allowance for variations from the average in the number of days during which rainfall exceeds 10 mm. The factor (Rw-Rn) shall be considered to represent a fair allowance for variations from the average in the number of days during which the rainfall did not exceed 10 mm but wet conditions prevented or disrupted work.

For the purpose of applying the formula, accurate rain gauging shall be taken at a suitable point on the Site and the Contractor shall at his own expense, take all necessary precautions to ensure that rain gauges cannot be interfered with by unauthorized persons.

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.

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 EPWP.
- 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
 - (f) 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 behavior 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.

Part 1: Contract Data completed by the Employer

Clause Contract Specific Data by the Employer

1.1.14 **Name of Employer:** DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

1.2.2 **The address of the Employer is:**

Address (physical): Cnr Adelaide Tabo & Nelson Mandela Drive, Volksrust

Address (postal): Private Bag X9011, Volksrust, 2470

Telephone: 017 734 6100

Fax: 017 735 3004

1.1.15 **Name of Engineer:** Zenkcon Engineers Pty Ltd

1.2.2 **Address of the Engineer:**

Physical:

Office 41, Norma Jean Square

21 Bermini Street

Centurion, Gauteng

0157

Telephone: 012 001 5300

Email: admin@zenkcon.co.za

1.6 & 38 The special non-working days are public holidays, Saturdays, Sundays and the days on which the contractor grants the majority of his permanent workforce leave around the 16th December and the first Monday of the subsequent year.

Clause	Contract Specific Data by the Employer
2.3	The Engineer is required to obtain the specific approval of the Employer before executing any of the following functions or duties: 1. Nominating the Engineer's Representative in terms of Clause 2.4. 2. Delegation of Engineer's authority in terms of Clause 2.7. 3. Providing consent for subcontracting part of the contract in terms of Clause 6.2. 4. The issuing of further drawings or instructions in terms of Clause 13.1 5. The issuing of instructions for dealing with fossils and the like in terms of Clause 15. 6. Authorizing the Contractor to repair and make good excepted risks in terms of Clause 32.2.2. 7. The issuing of a variation order in terms of Clause 36.2. 8. Issuing of instructions to carry out work on a day work basis in terms of Clause 37.1.4. 9. Granting permission to work during non-working times in terms of Clause 38.1. 10. Suspend the progress of the works in terms of Clause 39.1. 11. The issuing of an instruction to accelerate progress in terms of Clause 40.3. 12. The reduction of a penalty for delay in terms of Clause 43.2. 10. The determination of additional or reduced costs arising from changes in legislation in terms of Clause 46.4. 11. The giving of a ruling on a contractor's claim in terms of Clause 48.5. 12. The agreeing of an extension to the 28 period in terms of Clause 48.5.1. 13. The inclusion of credits in the next payment certificate in terms of Clause 48.5.2. 14. The agreeing of the adjustment of the sums for general items in terms of Clause 50.1.
7	The time to deliver the Form of Guarantee within 14 days of the Commencement Date. The Form of Guarantee is to contain the wording of the document included in Clause.3. The liability for the guarantee shall be for 10% of the contract amount.
10.1	The Works are to be commenced within 14 days of the Appointment Date.
12.2	The Works programme is to be delivered within 14 days of the Commencement Date.
35.1.1.2.2	The value of the materials supplied by the Employer to be included in the insurance sum is R0-00
35.1.1.2.3	The amount to cover professional fees for repair or reinstatement of damage to the works to be included in the insurance sum is R0-00
35.1.3	The limit of liability insurance is 10% of the contract amount per claim.
35.1.4	No additional insurance is required.
37.2.2.3	The percentage allowance to cover overhead charges is 15% .
42.1	The works shall be completed within one and a half (1.5) months exclusive of year end break.
43.1	The penalty for failing to complete the Works is 1.5% of the contract amount per month .
46.2	Contract Price Adjustment is not applicable to this contract. The value of "x" is 0,15 a = 0.15 (labour) b = 0.20 (plant) c = 0.55 (materials) d = 0.10 (fuel) The urban area nearest the site is Volksrust.
49.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%

49.3	The percentage retention on amounts due to the Contractor is 10% of the contract amount , excluding contract price adjustment, contingencies and VAT.
49.6	A Retention Money Guarantee is permitted .
53.1	The Defects Liability Period is 6 months measured from the date of the Certificate of Completion.
58.2	Dispute resolution is to be by means of adjudication
58.4	Disputes are to be referred for final settlement to arbitration.

Clause

46.3 The variation in cost of special materials is:

Special material	Unit on which variation will be determined		Price for base month ex factory, excluding transport, labour or any other costs.
	Containers	Delivered in bulk	

*State unit in appropriate column

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

C1.3 Form of Guarantee

Contract No: Description

WHEREAS **The DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY** (hereinafter referred to as the Employer”) entered into, a Contract with:

.....
(hereinafter called “the Contactor”) on the day of 20.....,

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

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

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

1. The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completion date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the Guaranteed Sum of
.....Rand (in words); R
(in figures)
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

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

.....
.....
.....
.....

IN WITNESS WHEREOF this guarantee has been executed by us at
on this day of 20

Signature

Duly authorized to sign on behalf of

Address

.....
.....

As witnesses:

1

2

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

C2. Pricing Data

C2.1 Pricing Instructions

- 1 Measurement and payment shall be in accordance with the relevant provisions of Colto 1998 Standardised Specifications for Civil Engineering Construction referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of COLTO, 1998, *General*.
2. The units of measurement described in the Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
m ²	=	square metre
m ² -pass	=	square metre-pass
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
MN	=	meganewton
MN.m	=	meganewton-metre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	Work day
3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
4. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the

	Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
5	It will be assumed that prices included in these Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for Bids. (Refer to www.stanza.org.za or www.iso.org for information on standards)
6	Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount Bided such items
7.	An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
8.	The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
9.	Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
10.	The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11.	Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the COLTO, 1998 Standardised Specifications.
12.	Those parts of the contract to be constructed using labour-intensive methods have been identified in the scope of works. Tenderers must price such works so as to allow for Labour-intensive construction methods. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract.
13.	Payment for items which are designated to be constructed labour-intensively will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
14.	The tenderer should price for Ward 05.

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

THE DRILLING OF BOREHOLES IN WAKKERSTROOM IN WARD 5

C2.2 Bill of Quantities

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1200	GENERAL REQUIREMENTS AND PROVISIONS	-			
1201	i) Payment of Community Liaison Officer (R10000,00 per month)	Prov. Sum	1	R30 000.00	R30 000.00
	ii) Payment of 4 student Trainee (R5000,00 per month)	Prov. Sum	1	R30 000.00	R/O
	iii) Provisional Sum for staking and levelling to be carried out by and independent Engineering Surveyor	Prov. Sum	1	R35 000.00	R35 000.00
	iv) Provisional Sum for control testing to be carried out by an approved independent laboratory (Requested by Engineer)	Prov. Sum	1	R45 000.00	R45 000.00
	v) Handling costs and profit in respect of (i),(ii),(iii) and (iv) above	%	110 000.00		
B12,02	Structured Training (as specified in part D of the project specification)	-			
	a) Engineering skills	Prov. Sum	1	R60 000.00	R/O
	b) Entrepreneurial Skills	Prov. Sum	1	R60 000.00	R/O
	c) Generic Skills	Prov. Sum	1	R25 000.00	R/O
	d) Provision of training venue (only if required)	Prov. Sum	1	R10 000.00	R/O
	e) Handling costs and profit in respect of subitems (a), (b), (c) and (d) above	%		10%	R/O
B12,03	Supply, transport to site and erect contract sign boards as per drawing	no	1		
1200	TOTAL CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1300	<u>CONTRACTORS ESTABLISHMENT ON SITE</u>	-			
	<u>AND GENERAL OBLIGATIONS</u>	-			
13.01	The contractors' general obligations:				
	(a) Fixed obligations	Lump Sum	1		
	(b) Value-related obligations	Lump Sum	1		
	(c) Time-related obligations	Month	3		
	-	-			
1300	TOTAL CARRIED TO SUMMARY				-

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL</u>				
14.01	Office and laboratory accommodation:				
	(a) Offices (interior floor space only) (preferably container)	m ²	30		
	(e) Ablution units	No.	4		
14.02	Office and laboratory furniture:				
	(a) Chairs	No.	10		
	(d) Desks, complete with drawers and locks	No.	2		
	(f) Conference tables	No.	1		
14.03	Office and laboratory fittings, installations and equipment:				
	(a) Items measured by number :				
	(i) 220/250 volt power points	No.	3		
	(iii) Double 80 watt fluorescent-light fittings complete with ballast and tubes	No.	2		
	(iii) Single incandescent-light fittings complete with 100 watt globes	No.	2		
	(vi) General purpose steel cupboards with shelves	No.	1		
14.04	(v) Air conditioner (12000BTU)	No.	1		
14,04a	Car-ports	No.	2		

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM
 WARD 5
 Project Number: T12/2027

1400	TOTAL CARRIED FORWARD				
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
AMOUNT BROUGHT FORWARD					
B14,11	Telecommunications System				
	a) Supply (1) Cellular phone	Prov sum	1	20 000.00	20 000.00
	b) Costs of calls by engineer	Prov sum	1	15 000.00	15 000.00
	c) Handling costs and profit in respect of subitem 14,11(a),(b) above	%	35 000.00	10%	3 500.00
	d) Provision of Laptop for the use of Engineer	Prov sum	1	31 000.00	31 000.00
	e) Handling costs and profit in respect of subitem 14,11(d) above	%	31 000.00	10%	3 100.00
	Services:				
	(a) Services at offices and laboratories				
	(i) Fixed costs	Lump Sum	1		
	(ii) Running costs	Month	3		

DPKISLM discourages fraud and corruption.

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM
 WARD 5
 Project Number: T12/2027

1400	TOTAL CARRIED FORWARD	
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SCHEDULE A: WATER				SECTION 1700	
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1700	CLEARING AND GRUBBING				
B17.01	Clearing and grubbing of:				
	(a) Using normal construction machinery	ha	0.5		
	(b) Using hand methods	ha	0.5		
17.02	Removal and grubbing of large trees and tree stumps				
	(a) Girth exceeding 1m up to and including 2m	No.	2		
	(b) Girth exceeding 2m up to and including 3m	No.	3		
17.04	Clearing and grubbing at inlets and outlets of hydraulic structures	m ²	50		
TOTAL SECTION 1700 CARRIED TO SUMMARY					

SCHEDULE A: WATER					SECTION A
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	SCHEDULE A: WATER SUPPLY-SOLAR POWERED BOREHOLES (X2)				
1	DRILLING (Unconsolidated and Consolidated Sediments and Igneous, Metamorphic and Fractured Carbonate Rocks)				
1,1	Rotary air percussion with foam – 0 to 150 m				
1,1,1	203 mm diameter	m	200		
1,1,2	216 mm diameter	m			
1,1,3	254 mm diameter	m			
1,1,4	305 mm diameter	m			
1,2	Rotary air percussion – 151 to 300 m (rate to be over and Above items 1-1-1 to 1-1-4)				
1,2,1	165 mm diameter	m			
1,2,2	203 or 216 mm diameter	m			
1,2,3	254 mm diameter	m			
2	CASING (supplied, delivered and installed)				
2,1	Steel (bevel-edged plain)				
2,1,1	165 mm ID (minimum wall thickness 4 mm)	m	200		
2,1,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,1,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
2,2	Steel (slotted, width 3-4 mm)				
2,2,1	165 mm ID (minimum wall thickness 4 mm)	m	200		
2,2,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,2,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
3	CASING SHOES				
3,1	To fit 165 mm ID steel casing	m	20		
3,2	To fit 215 mm ID steel casing	m			
3,3	To fit 254 mm ID steel casing	m			
4	REAMING OF BOREHOLES				

4,1	152 mm or 165 mm to 203 mm or 219 mm diameter	m	200		
4,3	203 mm or 219 mm to 254 mm diameter	m			
4,3	152 mm or 165 mm to 254 mm diameter	m			
TOTAL SECTION L CARRIED TO THE NEXT PAGE					
SCHEDULE A: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
5.1	RECOVERY OF STEEL CASING	m	200		
5.2	FORMATION STABILISER (supplied, delivered and installed)	25 l	100		
5.3	CONCRETE COLLAR (complete per borehole)	No	2		
5.4	SANITARY SEAL (complete per borehole)				
5,4,1	Type I (305 mm hole & 254 mm ID casing)	m			
5,4,2	Type II (305 mm hole & 215 mm ID casing)	m			
5,4,3	Type III (305 mm hole & 165 mm ID casing)	m			
6.1	BOREHOLE DISINFECTION (complete per borehole)	No	2		
6.2	BOREHOLE PROTECTION (complete per borehole)	No	2		
6.3	BOREHOLE MARKING (complete per borehole)	No	2		
6.4	DATA RECORDING AND REPORTING (complete per borehole)	No	2		
6.5	WORK TIME RATE (also for borehole development)	Hr	4		
6.6	STANDING TIME RATE	Hr	4		
7	ELECTRICAL EQUIPMENT INSTALLATION				
7.1	Motorised installations (electric, solar or diesel-driven)				
7,1,1	Wet End Pump 2.2kW 400V	No	2		
7,1,2	Submotor Submersible 2.2kW 400V	No	2		
7,1,3	Control Box 5.6kW 400kW 3 Phase	No	2		
7.2	4 Core Sub Cable 2.5mm	m	200		
7.3	Splicing kit	No	2		
7.4	Safety rope	m	20		
7.5	Base plate 40 mm	No	2		
7.6	Check valve 40 mm	No	2		
7.7	HDPE Pipe CL9 40 mm (per 100 m)	m	40		
7.8	Fittings and consumables (per b/h)	No	2		
7.9	Chlorinator per (b/h)	No	2		

8	BOREHOLE HOUSE				
8.1	Concrete cage (lockable with special spanner)	No	2		
TOTAL SECTION L CARRIED TO THE NEXT PAGE					
SCHEDULE A: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
9	Elevated Stand and Storage				
9.1	Tank 5000L JoJo	No	2		
9.2	Tank Stand for 5 kL @ 3m height	No	2		
10	Water Quality Testing (one samples per borehole)	No	2		
10.1	pH	No	2		
10.2	Turbidity	No	2		
10.3	Electrical conductivity	No	2		
10.4	Nitrate	No	2		
10.5	Total Coliform Count	No	2		
10.6	Ecoli	No	2		
10.7	Iron as Fe	No	2		
10.8	Manganese as Mn	No	2		
11	Yield Analysis and Testing (Constant discharge, Step-Test, Draw-down and recovery) for 5 Boreholes	Lump Sum	1		
12	Exploration/Siting	Lump Sum	1		
13	Electrification				
13.1	Design and installation of Solar Panel to energize borehole pump and motor	No	2		
14	FENCING OF THE BOREHOLE				
14.1	Supply and Install Razer Wire and poles around the borehole for protection	m	100		
14.2	1.2m Pedestrian gate, single leaf Class A Galvanized only	No	1		
15	Provide As-built drawings and O&M Manuals	Lump Sum	1		

16	Installation of Stand pipes/taps and all necessary accessories	No	2		
TOTAL SECTION A CARRIED TO THE SUMMARY					

SCHEDULE B: WATER					SECTION B
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	SCHEDULE B: WATER SUPPLY-WINDMILL POWERED BOREHOLES (X2)				
1	DRILLING (Unconsolidated and Consolidated Sediments and Igneous, Metamorphic and Fractured Carbonate Rocks)				
1,1	Rotary air percussion with foam – 0 to 150 m				
1,1,1	203 mm diameter	m	200		
1,1,2	216 mm diameter	m			
1,1,3	254 mm diameter	m			
1,1,4	305 mm diameter	m			
1,2	Rotary air percussion – 151 to 300 m (rate to be over and Above items 1-1-1 to 1-1-4)				
1,2,1	165 mm diameter	m			
1,2,2	203 or 216 mm diameter	m			
1,2,3	254 mm diameter	m			
2	CASING (supplied, delivered and installed)				
2,1	Steel (bevel-edged plain)				
2,1,1	165 mm ID (minimum wall thickness 4 mm)	m	200		
2,1,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,1,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
2,2	Steel (slotted, width 3-4 mm)				
2,2,1	165 mm ID (minimum wall thickness 4 mm)	m	200		
2,2,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,2,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
3	CASING SHOES				
3,1	To fit 165 mm ID steel casing	m	20		
3,2	To fit 215 mm ID steel casing	m			
3,3	To fit 254 mm ID steel casing	m			
4	REAMING OF BOREHOLES				
4,1	152 mm or 165 mm to 203 mm or 219 mm diameter	m	200		
4,3	203 mm or 219 mm to 254 mm diameter	m			

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM
WARD 5
Project Number: T12/2027

4,3	152 mm or 165 mm to 254 mm diameter	m			
TOTAL SECTION L CARRIED TO THE NEXT PAGE					

SCHEDULE B: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
5.1	RECOVERY OF STEEL CASING	m	200		
5.2	FORMATION STABILISER (supplied, delivered and installed)	25 l	100		
5.3	CONCRETE COLLAR (complete per borehole)	No	2		
5.4	SANITARY SEAL (complete per borehole)				
5,4,1	Type I (305 mm hole & 254 mm ID casing)	m			
5,4,2	Type II (305 mm hole & 215 mm ID casing)	m			
5,4,3	Type III (305 mm hole & 165 mm ID casing)	m			
6.1	BOREHOLE DISINFECTION (complete per borehole)	No	2		
6.2	BOREHOLE PROTECTION (complete per borehole)	No	2		
6.3	BOREHOLE MARKING (complete per borehole)	No	2		
6.4	DATA RECORDING AND REPORTING (complete per borehole)	No	2		
6.5	WORK TIME RATE (also for borehole development)	Hr	4		
6.6	STANDING TIME RATE	Hr	4		
7	BOREHOLE HOUSE				
7.1	Concrete cage (lockable with special spanner)	No	2		
TOTAL SECTION L CARRIED TO THE NEXT PAGE					

SCHEDULE B: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
8	Elevated Stand and Storage				
8.1	Tank 5000L JoJo	No	4		
8.2	Tank Stand for 5 kL @ 3m height	No	4		
9	Water Quality Testing (one samples per borehole)	No	2		
9.1	pH	No	2		
9.2	Turbidity	No	2		
9.3	Electrical conductivity	No	2		
9.4	Nitrate	No	2		
9.5	Total Coliform Count	No	2		
9.6	Ecoli	No	2		
9.7	Iron as Fe	No	2		
9.8	Manganese as Mn	No	2		
10	Yield Analysis and Testing (Constant discharge, Step-Test, Draw-down and recovery) for 5 Boreholes	Lump Sum	1		
11	Exploration/Siting	Lump Sum	1		
12	Electrification				
12.1	Design and installation of windmill (energy output similar to a 3 phase 15 kVA TRF) to energize borehole pump and motor	No	2		
14	FENCING OF THE BOREHOLE				
14.1	Supply and Install Razer Wire and poles around the borehole for protection	m	100		
14.2	1.2m Pedestrian gate, single leaf Class A Galvanized only	No	1		
15	Provide As-built drawings and O&M Manuals	Lump Sum	1		
16	Installation of Stand pipes/taps and all necessary accessories	No	4		
17	Provisional Sum for intra Settlements water Reticulation.	Prov. Sum	1	R150 000.00	R150 000.00

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM
WARD 5
Project Number: T12/2027

	Handling costs and profit in respect of item 17 above	%	150 000.00	10%	R15 000.00
TOTAL SECTION B CARRIED TO THE SUMMARY					

SCHEDULE C: WATER					SECTION C
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	SCHEDULE C: WATER SUPPLY-HAND PUMP POWERED (X1)				
1	DRILLING (Unconsolidated and Consolidated Sediments and Igneous, Metamorphic and Fractured Carbonate Rocks)				
1,1	Rotary air percussion with foam – 0 to 150 m				
1,1,1	203 mm diameter	m	100		
1,1,2	216 mm diameter	m			
1,1,3	254 mm diameter	m			
1,1,4	305 mm diameter	m			
1,2	Rotary air percussion – 151 to 300 m (rate to be over and Above items 1-1-1 to 1-1-4)				
1,2,1	165 mm diameter	m			
1,2,2	203 or 216 mm diameter	m			
1,2,3	254 mm diameter	m			
2	CASING (supplied, delivered and installed)				
2,1	Steel (bevel-edged plain)				
2,1,1	165 mm ID (minimum wall thickness 4 mm)	m	100		
2,1,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,1,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
2,2	Steel (slotted, width 3-4 mm)				
2,2,1	165 mm ID (minimum wall thickness 4 mm)	m	100		
2,2,2	215 mm ID (minimum wall thickness 4,5 mm)	m			
2,2,3	254 mm ID (minimum wall thickness 4,5 mm)	m			
3	CASING SHOES				
3,1	To fit 165 mm ID steel casing	m	10		
3,2	To fit 215 mm ID steel casing	m			
3,3	To fit 254 mm ID steel casing	m			
4	REAMING OF BOREHOLES				
4,1	152 mm or 165 mm to 203 mm or 219 mm diameter	m	100		
4,3	203 mm or 219 mm to 254 mm diameter	m			

4,3	152 mm or 165 mm to 254 mm diameter	m			
TOTAL SECTION L CARRIED TO THE NEXT PAGE					

SCHEDULE C: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
5.1	RECOVERY OF STEEL CASING	m	100		
5.2	FORMATION STABILISER (supplied, delivered and installed)	25 l	200		
5.3	CONCRETE COLLAR (complete per borehole)	No	1		
5.4	SANITARY SEAL (complete per borehole)				
5,4,1	Type I (305 mm hole & 254 mm ID casing)	m			
5,4,2	Type II (305 mm hole & 215 mm ID casing)	m			
5,4,3	Type III (305 mm hole & 165 mm ID casing)	m			
6.1	BOREHOLE DISINFECTION (complete per borehole)	No	1		
6.2	BOREHOLE PROTECTION (complete per borehole)	No	1		
6.3	BOREHOLE MARKING (complete per borehole)	No	1		
6.4	DATA RECORDING AND REPORTING (complete per borehole)	No	1		
6.5	WORK TIME RATE (also for borehole development)	Hr	4		
6.6	STANDING TIME RATE	Hr	4		
TOTAL SECTION L CARRIED TO THE NEXT PAGE					

SCHEDULE C: WATER					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
11	Yield Analysis and Testing (Constant discharge, Step-Test, Draw-down and recovery) for 5 Boreholes	Lump Sum	1		
12	Exploration/Siting	Lump Sum	1		
13	Powering				
13.1	Design and installation of hand pump (to pump borehole pump)	No	1		
14	FENCING OF THE BOREHOLE				
14.1	Supply and Install Razor Wire and poles around the borehole for protection	m			
14.2	1.2m Pedestrian gate, single leaf Class A Galvanized only	No			
15	Provide As-built drawings and O&M Manuals	Lump Sum	1		

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM
WARD 5
Project Number: T12/2027

TOTAL SECTION C CARRIED TO THE SUMMARY					

SCHEDULE D: ENVIRONMENTAL MANAGEMENT					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PART C	ENVIRONMANTAL MANAGEMENT				
C10.01	Environmental Control Officer approved by the Employer				
	(a) Payment of Environmental Officer for Monitoring	Prov. Sum	1	R 75 000.00	R 75 000.00
	(b) Preparation of the Environmental Management Plan (Including the WUL and EIA)	Prov. Sum	1	R 80 000.00	R 80 000.00
	(d) Handling cost and profit in respect of subitem C10.01(a) and (b)	%	155 000	10%	R 15 500.00

TOTAL SCHEDULE D CARRIED TO SUMMARY	
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SCHEDULE E: OHS ACT OBLIGATIONS					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PART E	OCCUPATIONAL HEALTH AND SAFETY ACT OBLIGATIONS (As and when required by the client)				
E10.01	(a) Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations (once off)	Lump Sum	1.00		
	(b) Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Months	3.00		
	(c) Submission of the Health and Safety File	Lump Sum	1.00		
	(d) Provision for personal protection equipment and clothing	Lump Sum	1.00		
E10.03	Cost of medical certificate and Medical Surveillance				
	(a) Initial (baseline) medical examinations	No	20		

Project Description: APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5

Project Number: T12/2027

TOTAL SCHEDULE E CARRIED TO SUMMARY					

SUMMARY OF BILL OF QUANTITIES		
DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5		
SECTION	DESCRIPTION	AMOUNT
1200	General requirements and provisions	
1300	Contractor's establishment on site and general obligations	
1400	Offices and laboratory for site personnel	
1700	Clearing and grubbing	
Sch A	Drilling of Boreholes - Water-Solar Powered x2	
Sch B	Drilling of Boreholes - Water-Windmill Poweredx2	
Sch C	Drilling of Boreholes - Water-Handpump Poweredx1	
Sch D	Environmental Management	
Sch E	OHS ACT obligations	
TOTAL SCHEDULE		
TENDER (CONTRACT) SUM		
ADD 5% FOR CONTINGENCIES (This amount is under the sole control of the employer)		
SUB-TOTAL A		
ADD: 15% VAT		
TOTAL TENDER AMOUNT		

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5

C3: SCOPE OF WORK

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5

C3: SCOPE OF WORK

C3.1 STANDARD SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

PART A: GENERAL

- PS-1 Project Description
- PS-2 Description of the Site and Access
- PS-3 Details of the Works
- PS-4 Construction Management Requirements

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

- B1 Project Specifications Relating to the Standard Specifications and
Other Additional Specifications.

C3.3 PARTICULAR SPECIFICATIONS

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR THE DRILLING OF BOREHOLES IN WAKKERSTROOM IN WARD 5

C3.3 STANDARD SPECIFICATIONS

STANDARD AMENDMENTS TO THE STANDARD SPECIFICATIONS ISSUED BY SANS 1200

No amendments have been issued.

PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS

In certain clauses the Standard Specifications allow a choice to be specified in the Scope of Works between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this Contract are contained in this part of the Scope of Works. It also contains some additional specifications required for this particular Contract.

SANS 1200 A: General

Item 8.3.1: Contractual requirements:

Add the following: , the compile of the safety file and provision for the safety officer and meeting of the safety requirement as per the construction regulation and the COVID-19 regulations.
The rate to include everything need to comply with the health and safety regulations.

PSL 2 MATERIALS (Sub-clause 3.1)

PSL 2.1 APPLICABLE STANDARDS

The latest revisions of the following standard specifications shall apply:

- SANS 144 - Single Door Reflux Valves
- SANS 191 - Cast Steel Gate Valves
- SANS 192 - Cast Steel Single Door Reflux Valves
- SANS 664 - Cast Iron valves for waterworks and Heavy Industrial applications.
- SANS 5155 - Cast Iron and Carbon Steel Butterfly Valves
- SANS 1123 - Steel flanges for pipes (Back of flanges spot faced)
- SANS 966 -UPVC PIPES

PSL 2.2.2 MATERIALS

Pipes shall be class 9 and 12 uPVC and Class 10 HDPE

Cast Iron and Resilient Gate Valves shall be manufactured from iron or cast steel depending on the specific working pressure.

Spindles shall be manufactured of high-grade stainless steel.

PSL 2.2.3 MARKING OF VALVES

The design pressure in Mega Pascal (MPa) shall be engraved on the side of the valve where it is legible. Valves shall be marked with the item number of the schedules when delivered to site.

PSL 2.2.4 HANDWHEELS AND CLOSURE

Where hand wheels are specified, edges shall be machined to a smooth surface. Wording "OPEN" and "CLOSE" will be casted into hand wheels. Valves will close clockwise except where it is otherwise specified. Spindles will be of the non-rising type.

PSL 2.2.5 PROTECTION OF VALVES

Valves shall be painted externally with a zinc chromate primer according to SANS 679 Type 1. (Dry film thickness of 50 mnc). After installation damaged primer shall be made good with compatible primer in accordance with valve supplier's specifications.

Subsequently to making good of the primer the valve shall be painted with two layers of alkyd-based enamel according to SANS 630 Grade 1 (dry film thickness of 250 micro meter per layer) to match the colour of adjoining pipe work.

PSL 2.2.6 HANDLING, DELIVERY AND INSTALLATION

All valves and related items shall be handled with the necessary care throughout all processes of manufacture, testing, delivery and installation. Valves shall be handled solely with slings that will cause no damage. In particular, the inlet and escape orifices of air valves and special valves shall be effectively sealed after manufacture until completion of installation and this sealing shall be examined regularly to ensure that it is still effective.

Valves shall be effectively supported, packed or fastened down for transporting and care taken to avoid valves knocking together during transport. Valves shall be stored in a safe place above ground and shall be protected against the ingress of foreign matter.

PSL 2.3 Fittings

Generally, fittings are to be manufactured in uPVC or cast iron as applicable. Fittings shall be compatible in respect of working and test pressure to those of the pipelines. All necessary fittings and adaptors to suit the water mains must be provided and fitted.

PSL 3 CONSTRUCTION

PSL 3.1 Test pressure (Sub-clause 7.3.1)

All pipes must have a minimum working pressure of 900 kPa. Test pressure for field testing shall be 1.25 times the working pressure. All pressure testing shall be performed in accordance with SANS 1200, Claus 7.3 "Standard Hydraulic pipe test".

PSL 3.2 Laying of continuous flexible pipes

HDPE continuous flexible piping of external diameter less than or equal to 50 mm, in soil trenches less than 1,5 m deep, shall be laid down in whole lengths, jointed only at fittings or specials. These pipes shall be laid in the centre of the trench, bedded and backfilling shall then be done with selected granular material and selected fill material to the height and standard specified for flexible pipe beddings. In case of pipes laid in trenches in rock, the pipe shall be laid on a layer of 75 mm thick selected granular material; backfilling shall then proceed as described above.

The minimum base width shall be 300 mm.

The depth of excavation for pipes from existing ground level shall in general be not less than 800 mm, except at connections at the water mains.

PSL 3.3 Anchor / thrust blocks and pedestals (Sub-clause 5.5)

Dimensions at all anchor / thrust blocks shall be supplied by the Engineer as and when required. The Contractor shall request such information not less than 7 (seven) calendar days in advance.

PSL 4 MEASUREMENT AND PAYMENT

PSL 4.1 Supply, lay and bedding of pipelines complete with couplings (sub-clauses 8.2.1, 8.2.2 and 8.2.3)

Notwithstanding the provision of sub-clause 8.2.4, 8.2.6 and 8.2.7, separate items will not be scheduled for the cutting of the pipe. The supply and fixing of the extra couplings, supply and installing joints with machined collars and special couplings, and the encasing of joints will therefore be deemed to be included in the rates tendered for the relevant items.

PSSL PARTICULAR SPECIFICATION SL: STEEL AND UPVC PIPES

PS SL STEEL AND UPVC PIPES, SPECIALS AND FITTINGS

PS SL 1 SCOPE

This specification covers the manufacture, corrosion protection, delivery, erection, installation, making good of corrosion protection as well as over-coating as may be required, site-testing and commissioning of steel pipes, specials and fittings mostly for the conveyance of water, but also for air, at normal ambient temperatures between 5°C and +70°C.

Standards referred to in the Specification are listed in the Annexure to this Specification.

PS SL 1.1 Manufacture of UPVC pipes

uPVC pipes with normal bore up to 110mm and 90 mm diameter shall be manufactured to conform to all the requirements of SANS 966 may be amplified or amended below.

The requirements regarding pipe sizes and grades, wall thickness, pipe lengths and pipe and requirements are specified in the Pipe Schedule and / or stated in the Schedule of Quantities.

The following minimum wall thickness shall apply:

External Diameter (mm) Minimum wall thickness (mm)

168 – 406	4,5mm
419 – 508	5,9mm
570 – 864	6,0mm

With regard to Sub-clause 4.2.2.1 in SANS 966 the Contractor shall, before commencing with pipe manufacture, satisfy the Engineer that the welding methods to be used in the pipe manufacture where required are adequate by:

- a. The preparation of a weld sample employing precisely the same welding process, equipment and artisans by which the pipe shall be manufactured.
- b. The preparation and destructive testing of the sample in (a) above, as laid down in SANS 966.

The results of the tests on the test pieces shall comply with the requirements of SANS 966 in all aspects.

Such destructive testing shall be carried out for each grade of steel and for each thickness of steel in that grade.

PS SL 1.2 Manufacture of pipe specials

Only pipe conforming to the requirements of Clause PSL 1.3.1 above may be used for the manufacture of pipe specials.

For pipes of nominal bore, up to 150mm diameter T-pieces shall be heavy class pipe only, with the same wall thickness for both main and branch pipes. The manufacturing process and quality requirements are as specified in the relevant section of BS 806 (Section 3).

Dimensions and joint types for pipe specials are specified in the Pipe Schedule and / or stated in the Schedule of Quantities.

Welding where required shall be done by a welder holding a valid competence certificate (Grade 1) in terms of SANS 044 – Part V. Butt-welded joints shall conform to the requirements for welding for pipes under Clause PSL 1.3.1 above, and the Contractor shall prove all butt and fillet welded joints to be crack-free by carrying out dye penetrate tests, following the procedure laid down in BS 4416.

If at all practicable, pipe specials shall be subjected to hydraulic pressure tests as specified for pipe under Clause 1.3.1 above. Where this is not feasible, butt-welds must be subjected to

radiographic inspection over their full length, with inspection procedure and acceptability limits for defects as specified in API 1104, keeping a record of all weld inspection and repair.

Where working pressures allow the use of malleable cast iron fittings for nominal bore up to 150mm diameter, these shall conform to the requirements of SANS 509.

PS SL 1.3 Pipe flanges, bolts and jointing

PSSL 1.3.1 Material and dimensions for flanges

The requirements for the materials and dimensions for flanges are in all respects as specified in SANS 1123.

A raised joint face shall be provided on all flanges of pressure rating higher than 2,5 MPa unless otherwise agreed to by the Engineer or as stated in the Schedule of Quantities, and the backs of cast or forged flanges shall be machined.

The machined surfaces of flanges shall be covered immediately after machining by a temporary rust preventative film of a suitable type as specified in BS 1133 (Section 6).

All flanges shall be drilled to SANS 1123 (Table 1600/3) or to the class as stated in the Schedule of Quantities.

PSSL 1.3.2 Welding on of flanges

The procedure for the welding-on of flanges, shall comply with the requirements of BS 806 (Section 3).

The proficiency of the welder and the quality requirements for the weld are the same as those specified in Clause PSL 1.3.2 above.

As a rule, the bolt holes in flanges for pipe specials shall not be on the vertical centre line.

When so specified in the Schedule of Quantities, flanged pipes shall be hydraulically tested after the welding-on of the flanges to a test pressure of 1,5 times the pressure rating of the respective flange.

PSSL 1.3.3 Bolts

Materials and dimensional requirements of bolts and nuts are specified in SANS 135 or 136. The Contractor shall correspondingly prescribe these requirements when ordering.

The threaded length shall be adequate to allow two full threads to protrude beyond the nut after the latter is fully tightened.

Each bolt shall be fitted with a nut and steel washer and bolts, nuts and washers shall be cadmium plated in accordance with and to a thickness specified for Class A in BS 1706.

Unless otherwise indicated in the Pipe Schedule, the number of bolts to be supplied shall be determined on the basis that each flange is to be supplied with half the number of bolts required for that flange.

PSSL 1.3.4 Jointing

Insertion for flanges shall be of compressed fibre jointing and shall have a uniform thickness between 1,5mm and 3mm and the material shall comply with BS 2815 for the specific pressure rating.

/

PSSL 1.3.5 Pipe joints and coupling other than flanges

Pipe ends shall be prepared for the type of jointing and coupling as specified in the Pipe Schedule and/or stated in the Schedule of Quantities with the requirements for and preparations as specified in SANS 62 and 719 as applicable.

Standard couplings and flange adapters shall be of the VIKING JOHNSON type or equivalent and all loose bolts with nuts and washers shall be cadmium plated in accordance with and to a thickness specified for Class A in BS 1706 and shall be lined and coated as specified in Clause PSL 1.2.6 below.

PSSL 1.3.5.1 Butt weld joints

At butt weld joints the internal protection shall be done in accordance with the following:

- Mix a styrene-butadiene copolymer latex (SBR) (Nitro bond or Duratex or similar) with water (1:1 ratio) and add Ordinary Portland Cement to form a slurry. Apply a coat of slurry to the steel and wet cement-mortar surface.
- Mix a SBR with water (1:3 ratio) and add to a cement/sand mix (1:1,5 ratio) to form a cement-mortar and apply while the slurry is still wet.

PSSL 1.3.5.2 Spigot and socket joints

At spigot and socket pipe ends the internal protection shall be done in accordance with the following:

-
- Prior to the joining of the pipes the edges of the cement-mortar lining and the steel surface shall be coated with slurry. Mix a bonding agent (Surfacrete from Samson or similar) with water (2:1 ratio) to form a slurry.

The surface of the cement-mortar must be wet when it is coated with slurry.

- Mix the slurry with an expansive cementitious grout (Standard Bedding grout from Samson or similar). While the slurry is still wet the grout shall be troweled to the edge of the cement-mortar lining in the socket.
- Push the spigot into the socket and tack weld. The excess grout that has been squeezed out of the joint shall then be removed from the pipe and the joint shall be smoothed with a scraper. Complete the welding before any movement at the joint is allowed and while the grout is still wet.
- The joint shall be welded at low amps and with thin rods to reduce the temperature of the steel at the grout.

The Contractor shall do tests to determine the optimum jointing procedure.

PSSL 1.3.6 Lining and coating of steel pipes, specials and fittings

Corrosion protection onto the inside of pipework

Pipework with diameters up to 150mm (Type A)

Hop dip galvanized in accordance with Sub-clause 3.9.2.1

Pipework with diameters greater than 150mm (Type B)

All pipes, specials and fittings, including couplings and flange adaptors, shall be fully lined and coated by COPON 2300 with a minimum of three coats to a minimum total dry film thickness of 250 micro meters on a steel surface that has been prepared by sandblasting to Grade SA 2.5 as specified in SIS 055900, with a delay of not more than four hours between sandblasting and the application of the first paint coat.

Successive paint coats shall be of different colours, and the colour of the final coat shall be approved by the Engineer prior to painting. Over-coating time between the applications of successive coats shall not exceed 24 hours.

Corrosion protection onto the outside of pipework

Exposed pipework (Type C)

The surface should be prepared by sandblasting to Grade SA 2.5 as specified in SIS 055900, with a delay of not more than four hours between sandblasting and the application of the primer.

Primer: one coat zinc chromate plus one coat universal undercoat with dry film thickness of minimum 15 microns.

Thereafter two finishing coats of gloss enamel structural paint of approved manufacture of different colours to a total film thickness of 38 microns per coat.

The colour of the final coats shall be in accordance with SANS 1091.

Pipework with diameters greater than 150mm (Type D)

All pipes, specials and fittings, including couplings and flange adaptors, shall be fully lined and coated by COPON 2300 with a minimum of three coats to a minimum total dry film thickness of 250 micrometres on a steel surface that has been prepared by sandblasting to Grade SA 2.5 as specified in SIS 055900, with a delay of not more than four hours between sandblasting and the application of the first paint coat.

Successive paint coats shall be of different colours, and the colour of the final coat shall be approved by the Engineer prior to painting. Over-coating time between the applications of successive coats shall not exceed 24 hours.

PS SL 1.3.6.1 Tape wrapping

External steel pipe coating and wrapping specification

A Denso Corroklad 750 tape or equivalent should be applied to the external surface of the 250mm diameter steel pipeline.

The tape consists essentially of a specially formulated polyethylene film laminated to a pressure sensitive, non-hardening thermoplastic adhesive. The adhesive layer is generally one and half times thicker than the polyethylene film.

The composite wrapping system provides a durable impact and cut resistant rock shield for normal and rugged service conditions.

Technical Data

The following information pertains to the Corroklad 750 tape:

- The base layer is made of polyethylene and is 0,3mm thick.
- The adhesive layer consists of rubber modified bitumen and is 0,45mm thick.
- The product thickness is 0,75mm.
- The tape has a minimum tensile strength of 15 MPa.
- The minimum elongation at failure is 300%.
- The adhesive and peel strength of the tape at 25°C is 2,2N/mm and 1,65N/mm respectively.
- The minimum electric strength of the tape is 25 kV.
- Cathodic disbondment by ASTM G8 Method B is 425mm².
- The service temperature of the tape is –10°C to 65°C.

Application Procedure

Corroklad tape can be successfully wrapped by hand (maximum tape width 100mm) and by machine. The general application is detailed below.

Surface Preparation

- All dirt, loose rust/mill scale and grease must be removed from the pipe surface.
- The minimum surface preparation acceptable for tape wrapping with Corroklad is ST2 (Swedish Standard SIS 055900-1967, Mechanical wire brushing).

Priming the Pipe Surface

- The primer to be used is Denso Primer D or equivalent Polymer Bitumen Solution, and is to be applied by means of a medium pressure cop gun.
- The primer may be thinned for application with white spirits or toluene.
- The primer should nominally cover 9m² litre.
- The minimum drying period at 20°C is 20 minutes.
- The flash point occurs above 23°C.
- If the pipes are prepared and primed off site, it may be necessary to apply a second coat of primer on site in order to rejuvenate the first application. This is only required if the pipe is being wrapped on site.
- The primer should be dust free prior to the application of the tape wrap system. Should the primer be contaminated, the surface must be re-primed.
- The primer should be allowed to dry for approximately 30 minutes at 20°C to 25°C prior to the application of the tape system.

Tape Application

- The Corroklad tape or equivalent should be spirally wrapped onto the primed pipe, utilizing a 55% overlap.

55% Overlap will ensure a minimum of two layers of tape at any point.

- Ensure that a constant web tension of 10 to 15kg/100mm is maintained during wrapping.
- At no time is the shrinkage of the total width of tape to exceed 2%.

Pipe Handling

- Non-metallic slings are to be utilized when handling the wrapped pipe sections or pipe, in order to ensure that no mechanical damage occurs to the tape.

PSSL 1.3.6.2 Making good and over-coating of steel pipes, specials and fittings

After erection, all damage to the COPON coatings shall be made good strictly in accordance with the paint supplier's detail specification. Prior to making good, a copy of these specifications shall be submitted to the Engineer.

Subsequent to the repair of COPON painted areas, all exposed pipework, as listed in the Schedule of Quantities, shall be cleaned of dirt, oil and such substances. These exposed pipe surfaces shall then be over-coated with two coats of polyurethane paint compatible with the COPON coating and in accordance with the paint supplier's detail specification including abrasion as may be necessary.

A copy of this specification shall be submitted to the Engineer as referred to above. The colours of the final coats shall be in accordance with SANS 1091 as follows:

Clear water pipes : B10 Brilliant green

PS SL 1.3.7 Handling, delivery and installation

All pipes, pipe specials and fittings shall be handled throughout the processes of manufacturing, corrosion protection, delivery and installation with all care necessary to prevent any damage.

After the corrosion protection of the outside of pipes and specials has been carried out, these items must be handled only by means of straps that will in no way damage the protection.

After completion of corrosion protection at the place of manufacture, all pipe ends shall be effectively closed off by at least a sheet of plastic held fast to the pipe and by binding wire.

This seal shall be checked specifically during delivery and after off-loading on site to confirm that it is still fully effective and shall immediately be repaired or replaced if damaged. Should there

be the slightest danger of the ingress of foreign matter into the pipework during installation, the ends shall be kept sealed off all the time.

Pipes shall be supported during traveling on shaped and padded cradles while pipe specials shall be adequately supported and separated from each other to prevent any damage.

At the delivery points on site, pipes, pipe specials and fittings shall be supported by plastic sandbags of sufficient strength, such that the under sides of the pipes and pipe specials are at least 200mm off the ground. The number and positioning of supports under the pipes shall be such as to prevent any undue pipe deflection.

Bolts, nuts, washers and jointing, shall be packed in strong metal or wooden containers with effective lids, with each different sizes of bolts grouped separately in hessian bags all clearly labelled as to their contents.

Pipe work shall be securely clamped in its final position by means of galvanized fittings.

PS SL 1.4 FLEXIBLE COUPLINGS AT STRUCTURES

Flexible couplings shall be provided at the point where pipe lines enter all structures.

PS SL 2 CONSTRUCTION

PS SL 2.1 COVER OF PIPELINES (Sub-clause 5.1.4.2)

Water mains shall be laid to have a minimum cover of 1,0m outside the site of the works and 0,8m inside the site of the works.

PS SL 2.2 BREAK INTO MAIN

The Contractor shall break into and connect up to the existing water pipeline after all the work on the water main has been completed and tested. The Contractor shall arrange in cooperation with the local authority for the emptying of pipes and canal, excavations, etc. complete as required for the connection.

PS SL 3 TESTING

PS SL 3.1 TEST PRESSURE (Sub-clause 7.3.1)

All pipes must have a working pressure as indicated on drawings. Test pressure for field-testing shall be for steel pipes 1,25 times working pressure and for FC pipes 1,5 times working pressure.

In general the Contractor shall keep in mind that the existing water supply system shall remain in sure during the construction period. All new-old pipe connections, etc. shall only be allowed in off peak times.

PS SL 3.2 TESTING OF PIPE LINES (Sub-clause 7.3.1.2)

The complete pipeline shall be tested in consecutive sections.

The Contractor shall be responsible for providing temporary valves, end caps, blank flanges or other isolating devices to complete the hydraulic testing.

For field test pressure see PSL 3.1.

The acceptance test shall be carried out as described in Sub-clause 7.3.

PS SL 4 MEASUREMENT AND PAYMENT

The unit of measurement for payment for the manufacture, corrosion protection and final over-coating as may be required, delivery, installation of pipes, site-testing and commissioning of pipes, pipe specials and fittings conforming with this Specification shall be either the lump sum or the unit of length or the number of items, all as stated in the Schedule of Quantities with differentiation between pipe sizes, classes and end preparation as stated in the Schedule of Quantities.

PS SL 4.1 VALVES AND SPECIALS

The rates tendered and paid for valves and fittings must include the cost of the provision of an approved coating and the cost of any additional couplings other than those listed in the Schedule of Quantities to connect to the water mains.

All adapters and distance pieces required for the extension to the specified level and length as shown on the drawings for air and scour valves must be included in the rates for the units.

PS SL 4.2 ANCHORS / THRUST BLOCKS (Sub-clause 8.2.11)

The cost of any formwork and excavation required shall be included in the rate for concrete.

PS SL 4.3 FLEXIBLE COUPLINGS AT STRUCTURES

The cost of providing couplings, cutting pieces, etc. shall be allowed for in the rate tendered for pipe work.

Where the Contractor decides to use additional short collar couplings for convenience, he shall allow for the cost of such couplings in the rates tendered for pipe work.

PS SL 4.4 VALVES

The unit of measurement for payment for the manufacture, delivery, installation, setting, site-testing and commissioning of valves and related items conforming to this Specification shall be either the lump sum or the number of items, all as stated in the Schedule of Quantities with differentiation between valve types, sized and classes as stated in the Schedule of Quantities.

PSG CONCRETE (STRUCTURAL) (SANS 1200 G)

PSG 3 MATERIAL

PS G 3.1.1 CEMENT (Sub-clause 3.2.1)

The preferred type of cement to be used for concrete structures shall be CEMIIBV or CEMIIB-W, Water: Cementation ratio 0.5.

PS G 3.1.2 CEMENT STORAGE (Sub-clause 3.2.3)

Cement shall not be kept in storage for longer than eight weeks without the Engineer's permission.

Cement which has been damaged in any way or which has been stored on site for a period exceeding three months shall be condemned and removed from site.

PS G 3.1.3 CONCRETE WITH REACTIVE AGGREGATES (Sub-clause 3.2 and 3.4)

The Contractor shall supply a test certificate for the aggregate confirming that it is not reactive.

With each delivery of materials under this clause the Contractor shall supply acceptable written evidence that this clause is being complied with.

PS G 3.1.4 AGGREGATE

Only dolomite aggregates to be used or other calcareous aggregates, with no impurities of chert, clay or other acid-insoluble residues.

PS G 3.1.5 PLUMBS (Sub-clause 3.4.2)

The use of plumbs shall not be permitted.

PS G 3.1.6 ADMIXTURES (Sub-clause 3.5)

Admixtures may only be used with the prior approval of the Engineer. Super plasticizers of the sulphated naphthalene formaldehyde condensates are preferred.

PS G 3.2 JOINT MATERIALS

PSG 3.2.1 PRIMER

An approved primer, full compatible with and/or manufactured for the specified jointing and sealing material shall be applied to the surfaces.

PSG 3.2.2 FILLERS

Fillers shall be closed-cell expanded polyethylene.

Fillers shall be pre-cut to suit the application with a tear-out strip for forming the specified recess for the bond breakers and sealant.

PSG 3.2.3 SEALANT AND BONDBREAKER

The elastomeric sealant shall be two-pack polyurethane type (gun grade for verbal joints) generally conforming with the physical properties specified in SANS 110, and used with primers as specified above.

The bond breaker placed immediately prior to application of the sealant shall be a self-adhesive vinyl type (or similar approved material) with a width the same as the joint recess into which it is to be applied.

PSG 3.3 CONSTRUCTION (Sub-clause 5)

PSG 3.3.1 COVER (Sub-clause 5.1.2)

The minimum cover to reinforcement shall be 50 mm unless otherwise specified on the Engineers drawings and bending schedules.

PSG 3.3.2 SPACERS REINFORCEMENT

Spacers of approved design include approved plastic or other proprietary spacers or purpose made precast mortar blocks.

Where mortar blocks are used, they shall be properly shaped so as not to slip out of position and shall be made of the same mix as the mortar of the concrete in which they are to be placed.

The mortar shall be well compacted by approved means into the moulds to result in blocks with a density of at least 2 300kg/m³; and which are free from honeycombing. They shall be cured in water for at least seven days. Mortar blocks which have not been manufactured and cured strictly in accordance with these requirements or which are in any other way considered unsatisfactory by the Engineer, will be rejected and shall be removed from the Site.

PSG 3.3.3 FORMWORK AND FINISHES (Sub-clause 5.2)

PSG 3.3.3.1 FORMWORK TIES

The use of sleeves through the concrete for formwork ties will not be permitted. Ties, when cast in, shall have some form of positive shear key to prevent any rotation when loosening formwork.

The formwork ties and bolt holes shall be placed with regularity and precision.

The finish of exposed concrete surfaces of concrete structures shall be “smooth” as detailed in (b) of sub-clause 5.2.1.

PSG 3.3.4 FILLETS AND CHAMFERS

All internal and external angles in concrete works (exposed corners) shall have 20mm X 20mm fillets and chamfers unless shown otherwise on the drawings.

The unit rate tendered for formwork shall cover the cost of forming these chamfers and fillets.

PSG 3.3.5 STRENGTH CONCRETE (Sub-clause 5.5.1.7)

With the exception of mixes weaker than 15Mpa, all concrete for the Works shall be considered to be strength concrete in terms of Sub-clause 5.5.1.7.

No concrete shall be cast until the mix designs have been approved by the Engineer. The Engineer may call for revised mix designs at any stage during the contract.

The Contractor has to supply and test 6 No. cube test results for approval prior to commencement of the works.

Unless otherwise specified on the drawings or in the Schedule all structural concrete shall have strength of 30 Mpa.

The concrete to be used on this contract shall be as follows:

For water retaining structures, 30/19 MPa with a minimum cement content of 360kg/m³ and a maximum of 400kg/m³.

For structures not in contact with water, 30/19 MPa concrete with a maximum cement content of 400kg/m³.

For anchor blocks, benching and mass concrete, 25/19 MPa concrete.

For no-fines concrete 15/19 Mpa concrete.

The successful Tenderer will be required to submit samples of the fine coarse aggregate which he proposes using, to the Portland Cement institute (or equivalent approved laboratory) for tests regarding the suitability of such aggregates. The institutes shall prepare trial mixes of the two stronger grades of concrete required for the contract to establish acceptable design mixes.

These mixes shall be designed for vibration. All data reports prepared by the Institute shall be submitted to the Engineer for information and approval.

PSG 3.3.6 DESIGN OF CONCRETE MIX

The concrete mix design shall be prepared by an approved independent laboratory and submitted to the Engineer for approval.

PSG 3.3.7 JOINTS

PSG 3.3.7.1 GENERAL

Notwithstanding Sub-clause 2.4.3 “designated joints” shall only be joints shown on the drawings and in the Schedule. Further joints required by the Contractor because of construction limitations or any other reason, shall be deemed to be “undesignated joints”

The position and pattern of all joints (designated or undesignated) shall be to the Engineer’s approval.

All joints (designated or undesignated) except expansion and contraction joints shall be treated in accordance with Sub-clause 5.5.7.3.

Joints between tank bottoms, floors or wall bases and the walls and columns standing on them, shall not be made flush with the supporting surface, but shall be made in the wall or the column a distance of 140mm above the base. The 140mm high “riser” shall be cast as an integral part of the bottom, floor or base, i.e. the concrete in the riser shall be deposited at the same time as the concrete in the bottom, floor or base adjacent to it.

In cases where there is a fillet at the bottom of the wall or column, the construction joint shall be made 140mm above the fillet.

The Contractor should note that the details of the undesignated joints shall be identical to the designated joints shown on the drawings where the joint is in a similar situation and performs the same duty.

The Contractor shall further note that the position and the type (where no identical designated joints exist) of undesignated joints shall be subject to the Engineer’s approval.

PSG 3.3.7.2 CONSTRUCTION JOINTS (Sub-clause 2.4.3 and 5.5.7)

All joints other than expansion, contraction or other movement joints, shall be treated as follows:

As soon as practical, but not before 15 hours after placing, the joint surface shall be prepared to receive fresh concrete.

This preparation, as specified in Sub-clause 5.5.7.3 (a) to (d) shall be such as to remove all laitance or inert and strength less material which may have formed and the specified shipping and sand blasting shall be such as to produce a roughened surface all over.

Concrete surfaces, where concreting is interrupted, shall be protected from the sun as specified in Sub-clause 5.5.8 (d).

PSG 3.3.7.3 CONSTRUCTION JOINTS/WATERSTOPS (Sub-clause 5.5.7.3)

No vertical construction joints other than those shown on the Drawings may be formed. Horizontal construction joints shall also be as per the Drawings.

All construction joints shall be as indicated on the Detail Drawings and be treated with a wet-to-dry epoxy resin concrete adhesive as approved by the Engineer.

PVC waterstops to be used in the works shall be 140mm wide “Expandite PVC Hydrofoil” waterstops or an approved equivalent.

During construction, all waterstops are to be properly cleaned before casting into concrete. Shuttering to be so manufactured so as to keep and support waterstops in their correct and final positions.

No nails are to be utilized and no holes are to be made through waterstops in supporting them. When concrete is placed adjacent to waterstops, care must be taken not to disturb the position of the waterstops.

Waterstops are to be provided in as long lengths as possible to minimize joints. All laps to be strictly to the manufacturers requirements.

PSG 3.3.7.4 EXPANSION AND CONTRACTION JOINTS

Expansion and contraction joints shall be made in the positions and to the details shown on the drawings.

The specified filler strips shall be attached to the complete side of the straight or grooved concrete joint by means of an approved adhesive.

PSG 3.3.7.5 JOINT SEALANT

All joints to be formed to the specified dimensions, properly prepared, primed and sealed with Flexothane two component polyurethane sealant obtained from African Bitumen Emulsions or similar approved and used strictly in accordance with the manufacturer's instruction.

PSG 3.3.8 ITEMS TO BE CAST IN OR GROUTED INTO CONCRETE

PSG 3.3.8.1 FIXING FOR EQUIPMENT SUPPLIED UNDER SEPARATE CONTRACT

The Contractor will be responsible for the forming of pockets and grouting in of holding down bolts for equipment supplied under a separate contract. Holding down bolts will be supplied and positioned in the pockets by a Mechanical Contractor, unless otherwise specified by the Engineer.

Upon completion of the positioning and alignment of equipment, the Contractor shall, in collaboration with the other Contractor, grout up pockets and base plates (subject to (c) below) necessary for the permanent installation of the equipment.

Only after the Engineer is satisfied with the alignment and the level of each item of plant, shall the Contractor grout up the base plate with an approved non-shrink grout.

PSG 3.3.8.2 FIXINGS FOR ITEMS SUPPLIED UNDER THIS CONTRACT

Holding down bolts or other fixings required for the installation of hand stops, crane beams, ladders, handrails and other items supplied under the Contract, shall be provided by the Contractor. These fixings shall be cast in or grouted into pockets or installed by other means as approved by the Engineer.

Where anchor bolts are used which are installed into holes drilled into concrete or masonry, these shall be of a type approved by the Engineer.

Anchor Bolts – hot dipped galvanized (mild steel). No electro plating will be allowed.

PSG 3.3.8.3 PIPES AND CONDUITS EMBEDDED IN CONCRETE

Except with the written approval of the Engineer, no pipes other than those shown on the drawings shall be embedded in concrete and the approval of the Engineer for the position of all services to be embedded shall be obtained before concreting commences. The clear space between pipes of any kind embedded in reinforcement concrete and the clear space between such pipes and reinforcement shall not at any point be less than :

40mm, or 5mm plus the maximum size of coarse aggregate, whichever is the greater.

PSG 3.3.8.4 CASTING IN OF PIPES AND SPECIALS

Pipes and specials to be set in concrete as shown on the drawings and listed in the Schedule of Quantities shall have all surfaces in contact with the concrete freed from all coatings and thoroughly scraped and cleaned. The pipes shall be set firmly in position on line and level and have formwork fixed around them.

Where the pipe or special is supplied by others, the Contractor shall provide a box-out in the wall and cast the unit in at a later stage. When constructing such as box-outs, reinforcement shall not be cut, but shall run through the opening. Reinforcement shall be cut and/or bent out at a later stage to suite the items being cast in. After installation of the item the remaining reinforcement shall be bent back in position.

Where entry holes for pipes/specials have been provided in the walls, the Contractor shall be responsible for the concreting in of such pipes/specials regardless of whether or not these have been supplied by him.

Before commencing with the positioning in holes of any pipes/specials, the Civil Contractor shall:

Remove all formwork and boxing remaining in the holes;

Make any alterations required to the position and shape of the holes and cut reinforcement to suit the item, as directed by the Engineer; and

Thoroughly scabble and cement slush the sides of the holes so as to obtain a satisfactory bond surface for the new concrete and treat the surface as specified in Sub-clause 5.5.7.

Immediately prior to concreting being carried out by the placing of mortar and concrete around the pipes, the surface of the existing concrete shall be saturated with water. All surplus water shall be removed and the surface covered with a layer, approximately 12mm thick, of mortar made of the same mix as the concrete in which the pipe/specials are to be placed.

The concrete ingredients shall be mixed and placed as dry as possible to obtain a dense, waterproof concrete. The concrete shall be carefully worked around the puddle flange, if any, and the pipe barrel or body of the special, and shall be vibrated in layers so as to obviate a falling away from pipe/special surfaces of the concrete already placed.

The whole shall, when set, form a dense, homogeneous and waterproof mass.

PSG 3.3.9 CURING AND PROTECTION (Sub-clause 5.5.8)

Level or gently sloping surfaces shall be cured by one of the methods described in Sub-clause 5.5.8 (a) of (b) and vertical surfaces by the methods described in Sub-clause 5.5.8 of (e), for a period of five days after casting, for an ambient temperature of 5°C or above and for eight days for an ambient temperature of below 5°C.

PSG 3.3.10 CONCRETE SURFACES

PSG3. 3.10.1 SCREED FINISH (Sub-clause 5.5.10.1)

After placing and compacting, the concrete on a top (unformed) surface shall be struck off with a template to the designated grades and tamped with a tamping board to compact the surface thoroughly and to bring mortar to the surface, leaving the surface slightly ridged but generally at the required elevation. No mortar shall be added, and noticeable surface irregularities caused by the displacement of coarse aggregate shall be made good by re-screed after the interfering aggregate has been removed or tamped.

PSG 3.3.10.2 WOOD-FLOATED FINISH

Where wood floating is ordered or scheduled, the surface shall first be given a finish as specified in PSG 3.10.1 and, after the concrete has hardened sufficiently, it shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface, free from screed marks.

PSG 3.3.10.3 STEEL-FLOATED FINISH

The surface of tank bottoms, floors and roof slabs, etc. shall be given a steel float finish in accordance with Sub-clause 5.5.10, to Degree 1 accuracy.

PSG 3.3.10.4 POWER FLOATED FINISH

Where power floating is required, the surface shall be treated as specified in PSG 3.10.3 to a degree necessary.

PSG 3.3.11 SCREEDS

PSG 3.3.11.1 GRANOLITHIC SCREED

Granolithic screed shall consist of: Cement – 1 part; Sand – 1.25 part; Coarse aggregate – 2 parts.

The coarse aggregate shall consist of granite or other approved chips which shall pass a 10mm sieve and be retained on a 5mm sieve.

The cement/water ration of the mix shall be at least 2,0 mass.

PSG 3.3.12 REPAIR OF DEFECTS

All defects to the concrete shall be attended to, in full, as soon as possible after the formwork is removed. Further concreting of the element concerned may be prohibited by the Engineer until he is satisfied that this remedial work has been satisfactorily attended to.

PSG 3.3.13 GROUTING OF MACHINE AND STRUCTURAL BASE PLATES

PSG 3.3.13.1 FORMWORK

Formwork for grouting shall comply with the applicable requirements of Sub-clause 5.2. Forms shall be caulked where necessary.

Adequate clearance between forms and bedplates shall be provided to enable the grout to be worked into place.

PSG 3.3.13.2 MIXING (all free-flowing grouts except epoxy grouts)

The grout shall be mixed to a homogenous uniform mixture and delivered ready for placing at a temperature between 15 °C and 25 °C.

The materials and water shall be mixed in a mortar mixer for at least three minutes or, in the case of small jobs only, shall be thoroughly mixed by hand, the entire mass being turned over enough times to ensure even distribution of its components.

The mixing shall be done as close as possible to the place(s) where the grout is placed. No more grout shall be mixed at any one time that can be placed in a period of 20 minutes. After the grout has been mixed, it shall not be re-tempered by the addition of water.

PSG 3.3.13.3 GROUTING (all free-flowing grouts except epoxy grouts)

The grout shall be placed quickly and continuously to avoid the undesirable effects of over-working. (These effects are segregation, bleeding and breaking-down of initial set.) The method of placement shall be subject to approval. The means of placing the grout shall be such that the grout will completely fill the space to be grouted, will be thoroughly compacted, will be free of air pockets and will be evenly distributed under the item to be supported.

Wherever practicable, grout shall be placed from one side only and where this is not practicable, care shall be taken to ensure that any trapped air is released.

After the grout has taken its initial set,

The forms shall be removed;

Excess grout shall be so cut away as to leave a smooth and neatly finished job;

Except where the grout is intended to provide resistance to side thrust, all edges shall be trimmed at 45° to the vertical, from the bottom edge of the bedplate; and

All access grout on or about the bedplates shall be removed.

Damage to paintwork, if any, shall be repaired within 24 hours.

Packing plates, shims and other levelling devices, shall remain in position.

PSG 3.3.13.4 DRY-PACKED GROUT (standard dry sand and cement grout)

Dry-packed grout shall have a minimum compressive strength at 28 days of 20MPa. The quantity of water added after placing shall be kept to a minimum consistent with placing conditions, and the cement, sand and, where applicable, pea gravel proportions by mass shall be as follows:

Where the clearance between bedplate and foundation is 25 mm or less: 1 part of Portland cement and 2 parts of sand; and

Where the clearance exceeds 25 mm: 1 part of Portland cement, 1 part of sand and 1 part of pea gravel.

Dry-packed grout shall be rammed by means of tamping rods against formwork placed along three sides of the bedplate.

PSG 3.3.13.5 NON-SHRINK GROUT WITH METALLIC AGGREGATE

The manufacturer's instructions shall be observed when non-shrink grout with metallic aggregate is used.

Where the clearance between the bedplate and the foundation is less than 50mm, a sand-based mix shall be used. Where the clearance exceeds 50mm, the Engineer may order a mix with a base of sand, plus pea gravel to be used.

PSG 3.3.13.6 EXPANDING GROUT WITH POWDERED ALUMINIUM ADDITIVE

The manufacturer's instructions shall be observed when an expanding grout with powdered aluminium additive is used.

Where the clearance between the bedplate and the foundation is less than 25mm, a sand-based mix shall be used.

Where the clearance exceeds 25mm, the Engineer may order a mix with a base of sand plus pea gravel to be used.

Each batch shall be mixed for at least 6 minutes after the powdered aluminium has been added. Where a ready-mixed grout is used, the powdered aluminium shall be added at the placing site and the batch mixed as specified in PSG 3.13.2. Grout shall be placed within 45 minutes after the addition of the powdered aluminium.

The Contractor shall not use powdered aluminium additive when the ambient temperature is below 5°C.

PSG 3.3.13.7 EPOXY GROUT (epoxy mortar type only)

The manufacturer's instructions shall be observed when and epoxy grout is used.

PSG 7 TESTING (Sub-clause 7)

PSG 7.1 GROUTING

The Contractor shall, where so ordered, carry out a site test for each grouting procedure and each grouting gang to be used. The tests shall be carried out on a dummy bedplate similar in configuration to that which is to be grouted, but not exceeding 1m² in area unless otherwise ordered.

When the dummy bedplate is dismantled, the underside shall show a minimum grout contact area of 80% with reasonably even distribution of the grout over the surface grouted except that, in the case of expanding grout, the minimum grout contact area shall be 95%. The test shall show evidence of good workmanship and materials and the results shall be to the satisfaction of the Engineer.

The Contractor shall, when so ordered, make standard test cubes from various grout mixtures and also subject them to compression tests to determine whether the specified strength has been achieved.

Test procedures shall comply with the relevant requirements of Sub-clause 7.2.1 to 7.2.3.

PSG 7.2 WATER TIGHTNESS TESTING (Sub-clause 5.5.11)

The following structures shall be defined as water retaining structures and shall be subject to water tightness testing:

- Chambers

Water for testing shall be taken from the Employer's water connection and pipes of a suitable size shall be provided by the Contractor to allow filling of the structures within a period of four days. The cost of water for the testing of water tightness will be for the Contractor's account.

Prior to the filling of structures, the Contractor shall seal all pipes and openings below the top water level.

The structure to be tested shall be filled with water, and shall remain full for a period of seven days, sufficient water being added. The water level shall then be recorded and the structure allowed standing for a further seven days without the addition of water. At the end of this period, the level shall again be recorded. If the difference in level, less the drop in level due to evaporation, is less than 10mm during the second period of seven days, the structure shall be considered watertight.

The evaporation shall be measured by recording the mean drop in level due to evaporation of water in three flat dishes floating in the water.

In the event of appreciable leakage being evident at any stage of the filling or testing, or in the event of the Engineer considering the final degree of water tightness to be unsatisfactory, the Contractor when ordered by the Engineer, shall discontinue such filling or testing and shall, at his own expense, take steps immediately to rectify the leakage, and to make the work thoroughly sound to the complete satisfaction of the Engineer and all such work of rectification shall be

continued assiduously until a satisfactory test is obtained, which shall prove to the Engineer that a sufficient degree of water tightness has been obtained.

No structure will be considered complete until it has been proved watertight in terms of the requirements of this clause.

Throughout the test and afterwards, whilst emptying the tank, the water level in the under drainage sump shall be kept below the level of the tank floor.

When emptying the structure, the rate of flow shall be controlled such that the water level in the structure does not drop faster than 100mm per hour.

PSG 7.3 TOLERANCES

PSG 7.3.1 PERMISSIBLE DEVIATIONS (Sub-clause 6.2)

The degrees of accuracy of construction shall be as follows:

- Chambers – Degree I accuracy.

PSG 8 MEASUREMENT AND PAYMENT

PSG 8.1 FORMWORK

PSG 8.1.1 FORMWORK IN NARROW WIDTHS (Sub-clause 8.1.1.2 and 8.2.5)

All formwork irrespective of width shall be measured in square metres and payment shall be per square metre.

PSG 8.2 BLINDING LAYER

The area of blinding layer shall be measured in square metres to the nett outline of the structure. Payment for blinding shall include for any formwork required to the edge of blinding.

PSG 8.3 JOINTS

The designated joint types shown on the drawings and scheduled will be measured separately by the length of joint installed.

The unit rate shall cover the cost of all materials, plant and labour for the construction of each joint type as specified or shown on the drawings including the cost of formwork, treatment, waterstop, sealant, joint, filler, etc. and treatment of the joint in accordance with Sub-clause

5.5.7.3 provision of the V-feature as specified where concrete is exposed, testing and making good.

PSG 8.4 REINFORCEMENT (Sub-clause 8.1.2)

No differentiation shall be made between size and diameter of the reinforcement. The rate for steel bars shall cover the cost of the supply, cutting, bending and fixing.

PSG 8.5 CASTING ITEMS INTO CONCRETE

Measurement shall be by length or number as scheduled. The unit rates shall cover the cost of fixing in position all work associated with restraining the items during concreting and of modifying the formwork

PSG 8.5.1 PIPES THROUGH WALLS

The tendered rates for boxing out holes and grouting in pipes and specials, shall cover the cost of boxing out the hole, preparation and concreting in as specified.

PSG 8.5.2 HOLDING DOWN BOLTS AND BASE PLATES

The holes boxed out for holding down bolts and base plates will be measured and paid in accordance with Sub-clause 8.2.6.

Grouting in of holding down bolts and base plates positioned by Others, will be measured in volume of non-shrink grout.

The tendered rate shall cover the cost of supplying, mixing and placing of the grout and preparing the hole as specified.

PSG 8.6 GRANOLITHIC SCREED

Measurement will be in square meters of surface area covered and the unit rate shall cover the cost of all materials, labour and equipment required to provide the screed as specified.

PSG 8.7 WATER TIGHTNESS TESTING

Payment for water tightness testing will be made under the specified items for each structure in the Schedule of Quantities. The sum tendered shall include for the cost of filling and emptying the structure, for sealing pipes and openings and for taking all measurements.

BUILDING WORK

The building work need to be done according to the national standard (SANS 10400), the NHBRC standard and the department of public work standards.

ELECTRICAL WORK

The electrical work need to be done according to the general electrical specification Part A, Part B and Part C from the department of Public Work (refer the website: www.publicworks.gov.za to download the specification)

C3.5 MANAGEMENT OF THE WORKS

C3.5.1 GENERIC SPECIFICATIONS

The SANS 1200 Standardized Specifications listed in 4.1.1 are applicable.

The provisions of these Specifications take precedence over the provisions of any part of SANS 2001 that is applicable to the contract. The variations and additions to these specifications are described in the section Applicable SANS 1200 Standardized Specifications (Section C3.4: Construction)

C3.6 HEALTH AND SAFETY

The following particular and generic specifications are applicable to this contract.

(1) Occupational Health & Safety

C3.6.1 HEALTH AND SAFETY REQUIREMENTS AND PROCEDURES

C3.6.1.1 Framework for an occupational health and safety plan

C3.6.1.1.1 Introduction

The Principal Contractor has to demonstrate to the Employer that it has a suitable and sufficiently documented Occupational Health and Safety plan as well as the necessary competencies, experience and resources to perform the construction work safely. The Principle Contractor could be required to submit the following documentation for perusal and verification by the Employer:

- Management structure.
- Quality plan.
- Human resources plan.
- Registered workplace skills plan.
- “Letter of good standing” from the Compensation Commissioner or licensed compensation insurer.
- Proof of Induction and other training of employees.
- Example copy minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation reports.
- Covid 19 preventative management plan

The following specifications are supplied as a guide only. The Employer’s Health and Safety Agent may amend and/or expand on the specifications by means of an addendum to Tender or after the award of the Contract.

C3.6.1.1.2 OH&S plan at tender stage

Tenderers shall submit an OH&S plan with their tender document. This shall be a preliminary plan that may be expanded on and finalised after the award of the contract. The OH&S Plan should be based on the following principles:

- A proper risk assessment of the construction work.
- Pro-active identification of potential hazards and unsafe working conditions.
- Informing and/or training of employees in hazards and risk areas.
- Provision of a safe-working environment and safety equipment.
- Ensuring the safety of sub-Contractors through their safety plans.
- Monitoring the health and safety on the construction works on a regular basis.
- Using competent safety officers.

C3.6.2 Contents of an occupational health and safety plan

C3.6.2.1 Occupational Health and Safety Management Programme

- Management of Occupational Health and Safety risks.
- Occupational Health and Safety structures and appointments.
- Programme of Occupational Health and Safety inspections.
- Occupational Health and Safety Representatives.
- Occupational Health and Safety committee.

C3.6.2.1.1 Communication and management of the work

- Management structure and responsibilities.
- Details of the construction supervision and his appointed assistants.
- Details of the Construction Safety Officer.
- Occupational Health and Safety goals for the project and arrangements for monitoring and review of Occupational Health and Safety performance.
- Arrangements for:
 - Regular liaison between parties on site.
 - Consultation with the workforce.
 - The exchange of design information between the Employer, designers, supervisors and Contractors on site.
 - Handling design changes during the project.
 - Selection and control of Contractors.
 - The exchange of Occupational Health and Safety information between all Contractors.
 - Security.
 - Site induction and onsite training.
 - Facilities and first-aid.
 - The reporting and investigation of accidents and incidents.
 - The production and approval of risk assessments and method statements.
 - Site OH&S rules.
 - Fire and emergency procedures.
 - Reporting to the Employer i.e. results of Occupational Health and Safety inspections, incident and incident investigations and committee meetings.

- Reporting of incidents to the Department of Labour and Compensation insurer where appropriate.

C6.2.1.2 Arrangements for controlling significant site risks

The following are some examples of the arrangements for controlling the most significant site risks:

C3.6.2.1.3 Safety risks

- Services, including temporary electrical installations.
- Preventing employees from falling into excavations, from trucks etc.
- Work with, on or near fragile materials.
- Control of lifting operations.
- The maintenance of plant and equipment.
- Traffic routes and segregation of vehicles and pedestrians.
- Traffic control during pipeline crossing of existing roads.
- Handling and storage of hazardous materials.
- Dealing with existing unstable structures/land.
- Working in confined spaces.
- Working at elevated heights (> 3,0 m).
- Other significant safety risks as and when identified.
- Working in excavations to a depth of 7,0 metres.

C3.6.2.1.4 Health risks

- Working environment.
- Handling, storage and use of hazardous chemical substances.
- Dust containing cement, silica and other hazardous substances.
- Dealing with contaminated land or material.
- Manual handling.
- Reducing noise and vibration.
- Provision of adequate lighting.
- Ventilation considerations.
- Extreme heat and cold temperature considerations.
- Dealing with HIV/Aids and other illnesses.
- Provision of and maintaining ablution and eating facilities.
- Other significant health risks as and when identified.
- Covid 19 preventative plan.

C3.6.2.1.5 Special risks

Contractors are to take note of the special risks that may be encountered during the project and to include these special risks in the OH&S plan.

C3.6.2.1.6 Working environment

- Rotating machinery (and pumps if required).
- Electrical infrastructure not indicated on “As Built” drawings.
- Electrical storms during summer months.
- Traffic control during pipeline crossings of existing roads.

C3.6.2.1.7 Installation work

- Use of electricity may be hazardous in wet conditions.
- Working space may be limited.
- Lifting and placing of heavy equipment, pipes and manhole rings and covers.

C3.6.2.1.8 Preparation of an occupational health and safety operational reference file/manual

The Principle Contractor shall open and maintain an OH&S file for the duration of the contract. On completion of the contract the Principle Contractor shall hand the OH&S file to the Employer.

C3.6.2.1.9 Following are some of the requirements to be addressed

- Layout, format and content requirements.
- Arrangement for the collection and gathering of information.
- Storage and archiving of all the information.
- Copy to the Client at completion of project.
- Appointment of a health and safety officer in writing.

C3.6.2.1.10 Contents of an OH&S file/manual

- OH&S Policy.
- Notice of new project.
- Site start-up.
- Security measures.
- Written designations and appointments.
- Arrangements with Contractors / mandatory's
- OH&S rules and procedures.
- Induction.
- OH&S training.
- OH&S promotion.
- OH&S representatives.
- OH&S committees.
- Workplace facilities e.g. ablutions, sheltered eating areas etc.
- Protective equipment.
- Workplace inspections and audits.
- Investigation and reporting of incidents/accidents.
- Mechanical safeguarding.
- Electrical safeguarding.
- Safeguarding against trench excavations with depths ranging between 2 to 7 metres.
- Safeguarding against hazardous substances.
- Lifting machinery and equipment.
- Construction vehicles and mobile plant.
- Welding, heating and flame cutting.
- Protection of the environment affected by construction activities.
- Keeping of records in terms of the OH&S Act (85 of 1993).
- General details of construction methods and materials used.
- Details of equipment and maintenance facilities within the structures.
- Maintenance requirements and procedures for structures / equipment / plant.
- Manuals produced by suppliers and specialist Contractors, including operating and maintenance procedures and schedules for plant and equipment.
- Details of the location and nature of utilities and services, including emergency and fire-fighting systems.
- Details of the Covid 19 regulations and preventative plan.

(a) Construction Regulations, 2003

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2003 (the regulations) as promulgated in Government Gazette No 25207 and Regulation Gazette No 7721 of 18 July 2003. (Not included in this Volume). Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Schedule of Quantity and Drawings, as well as in the Employers' health and safety specifications (regulation 4(1)) of the Construction Regulations 2003, which are bound in the Contract document

The Contractor shall in terms of regulation 5(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

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

C3.6.2 PROTECTION OF THE PUBLIC

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

C3.6.3 BARRICADES AND LIGHTING

All excavation must be marked with drum, reflecting tape and warning signs to satisfaction of the engineer and OHS appointed official.

PART C4 SITE INFORMATION

1 NATURE OF GROUND AND SUBSOIL CONDITIONS

Subsoil Investigation

- (a) A Geotechnical Investigation was conducted and did not indicate any ground water to be dealt with.
- (b) It is the Contractor's responsibility to supply and deliver all material that comply with the minimum standard as well as for the building and maintaining of access roads to the works on site, haul areas or dumping site. No additional payment will be applicable to the above mentioned other than the relevant items in the schedule of quantities.
- (a) There is existing uPVC and asbestos pipes. The Contractor is expected to expose and to connect to some of the existing pipes. There is existing services present underground such as sewer, water line and electrical cable that need to be taken care off. It is the Contractors responsibility to ensure that those services are not damaged.
- (b) The works will include crossing paved roads, the Contractor will be expected to conduct traffic control.
- (c) A limited number of pipes will cross water streams, the Contractor is expected to deal with surface and ground water

Should the services be damaged it will be fixed at the Contractor's expense.

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

RE-GRAVELLING OF GRAVEL ROADS AND REHABILITATION OF STORMWATER SYSTEMS IN WARD 5

C3.2: PROJECT SPECIFICATIONS

STATUS

The Project Specification, consisting of two parts, forms an integral part of the Contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for road contracts, and they may therefore cover items not applicable to this particular contract.

PART A: GENERAL

PS-1 PROJECT DESCRIPTION

The Scope of works identified will include Borehole sitting, drilling and equipping at 5 settlements within Wakkerstroom Ward 5

Settlements to be constructed under project are:

Settlement	Latitude (WGS'84)	Longitude (WGS'84)
Paardeplaas 1	-27.28788	30.46593
Paardeplaas 2	-27.27850	30.46732
Tafelkop	-27.31428	30.26291
Tafelkop	-27.31412	30.46709
Vaalbank 1	-27.18956	30.34366
Vaalbank 3	-27.21856	30.31927

The scope of will include but not limited to:

1. Site Establishment.
2. Accommodation of traffic.
3. Earthworks.
4. Sitting
5. Drilling
6. Equipping
7. Water supply and storage
8. Pump Houses
9. Fencing

PS-2 DESCRIPTION OF THE SITE AND ACCESS

2.1 Location of site

The settlements under consideration are located in Wakkerstroom and Ward 5 under Dr Pixley ka Isaka Seme Local Municipality in the Gert Sibande District of Mpumalanga Province.

2.2 Access to site

The project is located within Wakkerstroom Township in Ward 05, 27km east of Volksrust CBD within the jurisdiction of Dr Pixley Ka Isaka Seme Local Municipality (see locality plan for details).

PS-3 DETAILS OF THE WORKS

A brief detail of the works for which this specification is applicable is as follows:

3.1 Drilling works

•Paardeplaas 1

Traverse length: 240 m. Moderate magnetic coupling with lineaments at 50 m and 170–220 m; FDEM anomalies at 50 m conductive at both shallow and deeper depths, consistent with weathering/fracturing. The coincidence of the magnetic and FDEM anomalies at the 50 m station provided the primary basis for selecting this location as the Priority 1 target, with the additional lineament at 170–220 m considered a secondary structure of lower confidence given the absence of a corresponding conductivity anomaly at comparable depth.

•Paardeplaas 2

Traverse length: 360 m. Moderate magnetic coupling with lineament from 80–200 m; FDEM anomalies at 50 m and 340 m conductive at both shallow and deeper depths, consistent with weathering/fracturing. Notably, the strongest FDEM responses (50 m and 340 m) do not directly coincide with the centre of the mapped magnetic lineament (80–200 m); the Priority 1 and Priority 2 targets were therefore selected at the FDEM anomaly locations, which are considered the more reliable indicator of a conductive, weathered/fractured zone extending to depth.

•Tafelkop

Traverse length: 410 m. Moderate magnetic coupling with lineament at 220 m and 400 m; FDEM anomalies at 100 m and 390 m conductive at both shallow and deeper depths, consistent with weathering/fracturing. The 390 m station shows reasonable correspondence between the magnetic (400 m) and FDEM (390 m) anomalies, supporting its selection as the Priority 1 target.

•Vaalbank 1

Traverse length: 310 m. Moderate magnetic coupling with geological contact at 100 m; FDEM anomalies at 80 m and 250 m conductive at both shallow and deeper depths, consistent with weathering/fracturing. Here, the single interpreted magnetic contact at 100 m is flanked by two FDEM anomalies (80 m and 250 m), suggesting the contact zone may be associated with a broader zone of structural disturbance than a single, narrow feature.

•Vaalbank 3

Traverse length: 280 m. Moderate magnetic coupling with lineament at 170–210 m; FDEM anomalies at 70 m and 240–250 m conductive at both shallow and deeper depths, consistent with weathering/fracturing. As with Vaalbank 1, the FDEM anomalies bracket rather than directly coincide with the magnetic lineament, again suggesting a broader zone of associated structural disturbance.

Across all five settlements, a consistent pattern emerges: at each site, at least one location was

identified where FDEM conductivity anomalies persisted across the frequency range, providing a technically defensible basis for prioritising a specific drilling location over simply targeting the broad magnetic lineament as a whole.

3.2 Nature of ground conditions and subsoil conditions

The geometric compositions of the roads are from almost flat to sloping gentle. Geotechnical investigations were conducted on the road and existing road structure is G9/G10 and unsuitable material dominated by clay and loams soils. No existing materials will be used for pavement layers. The Borrow pit material was tested and it is suitable for road construction.

3.3 Labour recruitment conditions

A Project Steering Committee will be form before contractor establish on site. It is mandatory that the Contractor shall employ un-skilled labour from local community. Employment of such labour is to be done in conjunction with the PSC. **THE RATE OF UNSKILLED LABOUR FOR THE AREA IS R 250/DAY.**

3.4 Construction in confined Areas

The road in Ward 3 existing water and sewer mains and overhead electricity mains. The Contractor must make all necessary arrangements for working under such conditions.

Except where provided for in the specifications, no additional payment shall be made for work done in restricted areas. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the Contractor's constructional plant.

However, the Contractor shall note that, unless provided for in terms of the scheduled payment items in the COLTO Standard Specifications or these project specifications, measurement and payment shall be in accordance with the specified cross sections and dimensions only, irrespective of the method used for achieving these cross sections and dimensions, and that the tendered rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions, and that no extra payment shall be made nor shall any claim for additional payment be considered in such cases.

PS-4 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

4.1 General

The Contractor is referred to SANS 1921: 2004 parts 1, 2 and 3: Construction and Management Requirements for Works Contracts. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

4.1.1 Drawings *(Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)*

The reduced drawings which form part of the tender documents shall be used for tendering purposes only.

The contractor shall be supplied with two complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense produce there from all further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Engineer all drawings, provided or made, during the contract period.

Any information which the Contractor has control over and which is required by the Resident Engineer to complete the as-built drawings shall be made available to the Resident Engineer before the completion certificate is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site. The Contractor shall submit all levels and dimensions to the Engineer for confirmation before he commences with any structural construction work. The Contractor shall also check all clearances which are given on the drawings and inform the Engineer of any conflicting dimensions.

Any destination names on road signs which may be indicated on the drawings are subject to confirmation by the Engineer before these signs are manufactured.

4.2 Responsibilities for design and construction

Engineer

The Engineer responsible for the design in accordance with the specification is: Mr LM Makhathulela of Zenkcon Engineers.

4.3 EPWP labour intensive specification

4.3.1 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of 1CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1CE, 2CE, 3CE and 2CE shall have personally completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for, the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills Programme description
Team leader / supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
		Implement labour Intensive Construction Systems and Techniques	
Foreman/ supervisor	4	Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	any one of these 3 unit standards
		Manage Labour Intensive Construction Processes	
Site Agent / Manager (i.e the contractor's most senior representative that is resident on the site)	5		Skills Programme against this single unit standard

4.3.2 Employment of unskilled and semi-skilled workers in labour-intensive works

4.3.2.1 Requirements for the sourcing and engagement of labour.

4.3.2.1.1 Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

4.3.2.1.2 The rate of pay set for the EPWP is R 250.00 per task or per day.

4.3.2.1.3 Tasks established by the contractor must be such that:

- a) the average worker completes 5 tasks per week in 40 hours or less; and
- b) the weakest worker completes 5 tasks per week in 55 hours or less.

4.3.2.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 4.3.2.1.3.

4.3.2.1.5 The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

- a) where the head of the household has less than a primary school education;
- b) that have less than one full time person earning an income;
- c) where subsistence agriculture is the source of income.
- d) those who are not in receipt of any social security pension income

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

- a) 51% female;
- b) 49% male; and
- c) 2% on persons with disabilities.

4.3.2.2 Specific provisions pertaining to SANS 1914-5

4.3.2.2.1 Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

4.3.2.2.2 Contract participation goals

4.3.2.2.2.1 There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

4.3.2.2.2.2 The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

4.3.2.2.3 Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

4.3.2.2.2.4 Variations to SANS 1914-5

4.3.2.2.2.4.1 The definition for net amount shall be amended as follows:

Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.

4.3.2.2.2.4.2 The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

4.3.2.2.2.5 Training of targeted labour

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

4.3.2.2.2.5.2 The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

4.3.2.2.2.5.3 A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works– Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.

4.3.2.2.2.5.4 The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.

4.3.2.2.2.5.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.

4...2.2.2.5.4 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 4.3.2.2.2.5.4 above.

4.3.2.2.2.5.5 Proof of compliance with the requirements of 4.3.2.2.2.5.2 to 4.3.2.2.2.5.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

4.4 Plant and Equipment

Add Subclause 4.4: Restriction on the use of plant.

“Except for the type of plant, and to the extent permitted in terms of the project specification or approved by the Engineer, in writing, 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 project specification to be constructed using labour intensive methods. Failure by the Contractor to adhere to this clause will put him in breach of contract. The provisions contained in this contract with regard to labour content and labour-intensive construction, are binding, and will be enforced accordingly.”
The plant and equipment used on the site shall not be inferior to that described in the Schedule of Plant and Equipment.

4.4 Scope of mandatory subcontract work

The following portions of the works shall be subcontracted to CIDB registered contractors in accordance with the subcontracting procedures described hereunder:

Competitive Bids shall be invited in respect of each of the above portions of the works in accordance with the relevant provisions of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the use of BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement / CIDB Standard subcontract (labour only) / JBCC series 2000 Nominated / Selected Subcontract Agreement / SAFCEC General conditions of subcontract (2003 edition) (select appropriate option) / NEC Engineering and Construction Subcontract / NEC Engineering and Construction Short Subcontract with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the Bids received in accordance with the provisions of the Standard Conditions of Bid contained in Annexure F of Standard for Uniformity in Construction Procurement. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor. The Contractor shall without delay enter into contract with the successful Bidding subcontractor based on their accepted Bid submission.

The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

4.5 Planning and Programme *(Read with SANS1921-1:2004 clause 4.3)*

Preliminary programme

The Contractor shall include with his tender a preliminary programme on the prescribed form to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the specified Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

The following constraints shall be taken into account in preparing the preliminary construction programme which must be submitted with the Tender. These same constraints shall apply to the final construction programme.

- a) The Contract time is 3 months. Plant and personnel requirements to complete the project in 3 months must be incorporated in the Tender.
- b) A high standard of traffic accommodation
- c) Ancillary works by Emerging Contractors

Programme in terms of Clause 12 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 12 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme. The Contractor's attention is also drawn to clause 40.3 of the General Conditions of Contract 2004.

4.6 Quality Assurance (QA) *(Read with SANS 1921 – 1: 2004 clause 4.4)*

The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Engineer. To this end it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Engineer will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

The Contractor shall ensure that efficient supervisory staff, the required transport, instruments, equipment and tools are available to control the quality of his own workmanship in accordance with his QA-system. His attention is drawn to the fact that it is not the duty of the Engineer or the Engineer's representative to act as foreman or surveyor.

4.7 Management and disposal of water *(Read with SANS 1921 - 1: 2004 clause 4.6)*

The Contractor shall pay special attention to the management and disposal of water and stormwater on the site. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of

the Contractor's failure to properly manage rain and surface water, will not be considered.

4.8 Earthworks *(Read with SANS 1921 - 1: 2004 clause 4.10)*

Borrow pits and spoil areas

The location of the borrow pit shall be pointed out at the Site Inspection. The Contractor shall be permitted to use only those borrow pits approved by the Engineer.

The spoil sites shall be determined on site in conjunction with the Engineer, the PSC, and the local communities. The Contractor shall be permitted to use only those spoil areas approved by the Engineer.

Should the Contractor wish to use any other tip area for the disposal of soil, rubble, vegetation, etc, its use shall be subject to the approval of the Engineer and the landowner.

4.9 Testing *(Read with SANS 1921 – 1: 2004 clause 4.11)*

Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the schedule of quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

4.10 Site Establishment *(Read with SANS 1921 - 1: 2004 clause 4.14)*

Contractor's camp site and depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

The chosen site shall be subject to the approval of the Engineer, the local Tribal Authorities and the Project Steering Committee (PSC). Possible locations for a campsite shall be pointed out at the Site inspection. The Contractor shall conform to all local authority, environmental and industrial regulations.

The Contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment shall be made for the provision of electrical and other

services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.

4.11 Survey beacons *(Read with SANS 1921 - 1: 2004 clause 4.15)*

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

4.12 Existing Services *(Read with SANS 1921 - 1: 2004 clause 4.17)*

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

A provisional amount is included in the bill of quantities for the protection of services.

Prior to commencing construction activities in a particular area, the Contractor shall also diligently enquire of local landowners as to whether there are any other known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Engineer immediately.

The Contractor shall take note of the requirements of clause 1202 of the standard specifications with regard to services.

4.13 Health and Safety *(Read with SANS 1921 - 1: 2004 clause 4.18)*

4.13.1 General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in section C1.2.4

Health and Safety Specifications and Plans

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

(b) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 5*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2003.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment, if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

4.13.2 Requirements for Accommodation of Traffic (Read with SANS 1921 - 2: 2004)

General

The Contractor will be responsible for the safe and easy passage of public traffic past and on sections of roads of which he has occupation or where work has to be done near traffic. The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

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

Basic Requirements

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Engineer to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

Payment

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra

payment due to inconvenience as a result of the modus operandi will be considered.

4.14 Management of the environment *(Read with SANS 1921 - 1: 2004 clause 4.19)*

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

(a) Natural Vegetation

The Contractor shall confine his operation to the limits of the road reserve for the purpose of constructing the works and where applicable detours, shall be sited in consultation with the Engineer and the local communities.

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct, in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work where directed by the Engineer.

(b) Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

(c) Environmental Management Plan

In addition to the above all requirements according to the Environmental Management Plan as detailed in C3.3, Particular Specifications, will be adhered to.

PART B: AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATIONS

B1 PROJECT SPECIFICATIONS RELATING TO THE STANDARD SPECIFICATIONS AND OTHER ADDITIONAL SPECIFICATIONS

In certain clauses in the standard, standardised and particular specifications, allowance is made for a choice to be specified in the project specifications between alternative materials or methods of construction, and for additional requirements to be specified to suit a particular contract. Details of such alternative or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains the necessary additional specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the relevant clause or payment item in the standard specification.

The number of a new clause or payment item, which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by B, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS

B1202 SERVICES

Delete and replace the words:

“Clause 15 of the general conditions of contract” in the first sentence of the eleventh paragraph with Clause 12 of the General Conditions of Contract for construction works 2004 edition.

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following:

Quality control (Scheme 1) as detailed in Section 8200 will be used for determining the acceptance levels with respect to the properties of the materials and workmanship executed by the contractor.

B1206 THE SETTING-OUT OF WORK AND PROTECTION OF BEACONS

Delete the entire contents of the first paragraph and the following words in the first sentence of the sixth paragraph.

“and of clause 14 of the general conditions of contract.”

Add the following:

The contractor will be responsible for verifying all dimensions of existing structures before preparing fabrication shop drawings or setting out the works.

The Engineer’s approval of shop drawings or dimensions does not remove the responsibility for the work from the Contract.

Where services are to be connected to, the Contractor will verify the dimensions of these services before preparing shop drawings or ordering of materials.

B1209 PAYMENT

Amend sub clause (e) Materials on site by deleting and replacing the words:

“Clause 52 of the general conditions of contract” in the first sentence of the first paragraph with Clause 49 of the General Conditions of Contract for construction works 2004 edition.

B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

Delete and replace the words in the first paragraph:

"Clause 54 of the general conditions of contract" in the fourth line of the first sentence with Clause 51 of the General Conditions of Contract for construction works 2004 edition.

B1212 ALTERNATIVE DESIGNS AND OFFERS

Add the following to the end of sub clause (m):

"The provision for contract price adjustment in the original tender summary must not under any circumstances be altered in an alternative tender"

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Delete and replace the words in the first paragraph:

"Clause 45 of the general conditions of contract" in the first line of the first sentence with Clause 42 of the general conditions of contract for construction works 2004 edition.

Add the following after the first paragraph:

Method (ii) (Critical-path method) shall be used on this contract.

Method (ii) (Critical-path method)

Delete and replace the words in the second paragraph with the following:

Replace the word "five-day" in the second paragraph with "six-day".
The value of "n" is zero (0).

B1217 PROTECTION OF THE WORKS AND REQUIREMENTS TO BE MET BEFORE CONSTRUCTION OF NEW WORK ON TOP OF COMPLETED IS COMMENCED

Delete and replace the words in the first paragraph:

"Clause 35 of the general conditions of contract" in the second line of the first sentence with Clause 31 of the General Conditions of Contract for construction works 2004 edition.

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

The full extent of the road reserve will be handed over to the Contractor at the beginning of the contract. He shall be responsible for the maintenance along this portion of the road until completion of the contract.

B1229 SABS CEMENT SPECIFICATIONS

The standard cement specifications SABS 471, SABS 626, SABS 831 and SABS 1466 have been withdrawn and are replaced by the new SANS 50197-1 and -2: Common cements, and SANS 50413-1 and -2: Masonry cement. These specifications will be applicable to this contract, and the descriptions and types of cements specified, will be based on the designations as defined in these specifications.

B1230 ENVIRONMENTAL IMPACT CONTROL

Respect for the environment is an important aspect of this contract. The environmental control of the site shall be governed by the Environmental Management Plan (EMP) included in Particular Specification C3.3 of this document, which provides, inter alia for:

- (a) The Contractor must allow for the satisfactory combating of dust and noise nuisance throughout the contract length during construction.
- (b) The Contractor must make provision for the prevention of excessive erosion and siltation throughout the Contract and in particular on adjacent land. Should excessive erosion and/or siltation take place outside the road reserve as a direct result of the Contractor's construction activities it will be the Contractor's responsibility to make good the erosion/siltation to the satisfaction of the landowner and the Engineer.
- (c) No littering by construction workers shall be allowed. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer.
- (d) Adequate provision shall be made for temporary toilet requirements in construction areas. Use of the veld for this purpose shall not, under any circumstances be allowed.
- (e) Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants, such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate tailings, wash water, organic materials and bituminous products. In the event of spillage, prompt action shall be taken to clear the affected area. Emergency measures in the event of spillage must be set out and the responsible person made aware of the required action. The construction of temporary and or permanent dams must be done with the necessary approvals from the Department of Water Affairs and Forestry and Environmental Affairs and Tourism.
- (f) Bituminous and/or other hazardous products shall not be spoiled on site and may only be disposed of in licensed authorised disposal facilities.
- (g) Control of invader species of plants.

- (h) Clearing shall be limited to the road prism and, where applicable, detours, which shall be sited in consultation with the Engineer and the local communities.

No separate payment will be made for observing these requirements as it is deemed to be included in the amount tendered for Item 13.01(c) but any avoidable non-compliance with these rules may be considered sufficient grounds for withholding payment of part or all of the amounts to be paid for the above item.

B1231 WORKMEN'S COMPENSATION ACT

All labour employed on the site shall be covered by the Workmen's Compensation 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 Workmen's Compensation shall be handled shall be resolved by the Contractor at the commencement of the contract.

B1232 CARE OF WORKS, DAMAGE, INJURY AND INSURANCE

Compliance with Road Traffic Act:

When a service necessitates vehicles or plant travelling or working on a public road the following shall apply:

- The vehicles and plant shall be licensed in terms of the National Road Traffic Act 1996 (Act No. 93 of 1996) as amended.
- Every driver and operator of a vehicle or an item of plant shall be in possession of a valid permit in respect of the class of vehicle or item of plant he is driving or operating.

The contractor shall provide, erect and maintain sufficient road signs, barricades, fencing and guarding as may be necessary or required by the Engineer or by any act, regulation or statutory authority in order to minimise the danger and inconvenience caused to vehicle and pedestrian traffic.

The Contractor by accepting this contract shall be deemed to have indemnified the Employer and the Engineer against any claims, damages and / or costs that may arise in this regard.

SECTION 1300: CONTRACTOR'S SITE ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1301 PAYMENT

Add the following at the end of Item 13.01(1).

"..... and provided the Contractor has fulfilled his obligations as far as the Engineer's office, laboratory and housing accommodation is concerned".

Add the following new pay item: -

Item	Unit
B13.01(a) Services for Community Liaison Officer The CLO will be paid R6000/pm. Contractor will only claim Handling fee under item B13.01 (b)	Prov Sum
B13.01(b) Handling cost and profit in respect of sub-items B13.01(a)	%
B13.02 Relocation and/or protection of existing services: (a) By the contractor Payment of the item will be based on actual time of personnel and equipment to carry out the required relocation and/or protection of services. Any materials to be used must be approved by the Engineer on site. (b) By the service provider Invoice of nominated and approved service provider will be certified for payment after work done. Contractor will claim handling fee under item B13.02 (c). (c) Handling cost in respect of B13.05 (b)	Prov Sum %
B13.03 Supply, transport to site and erect contract signboards	Number (No.)

SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

B1402 OFFICES AND LABORATORIES

(a) General

Delete the fourth sentence in the first paragraph of Sub-clause 1402 (a) and replace with:

Office buildings shall have timber or concrete floors covered with edge-to-edge foam-backed needle-punched carpeting, and laboratory buildings shall have concrete floors.

Add the following new paragraph at the end of this sub-clause:

The offices, laboratory and stores shall, unless otherwise agreed, be erected in close proximity to the contractor's offices and laboratory, and the entire area shall be fenced with security fencing and provided with a gate. The contractor shall take all reasonable precautions to prevent unauthorised entry to the Engineer's offices and laboratories and to ensure the general security of the offices and laboratories.

B1401 MEASUREMENT AND PAYMENT

Amend the following pay items under item 14.01 (a) Provisional items and items paid for in a lump sum:

Item	Unit
(a) Provisional sum for the office accommodation for the Engineer.	Prov sum
(b) Handling cost and profit in respect of sub-item B1401 (a)	%

SECTION 1500 : ACCOMMODATION OF TRAFFIC

B1501 SCOPE

Add to Clause 1501 the following:

The scope of this section shall also include the preparation and submission to the Engineer for approval of traffic management plans. The traffic management plans shall demonstrate how the Contractor intends accommodating and controlling traffic through the site. The plans must incorporate all the requirements of the specifications in respect of the accommodation of traffic, including the traffic control devices and the personnel involved. A traffic safety officer shall be specifically named in the Plan together with 24 hr contact details. Copies of the plans shall be made available to the Engineer, the Employer, Local Authorities, the Police and Emergency Services.

The accommodation of traffic shall generally be undertaken in the following manner:

- (a) Via gravel diversions, where practical in terms of space and the terrain.
- (b) By dealing with traffic under construction where no diversions are possible.
- (c) By diverting traffic along the existing road where the route is being realigned.

B1502 GENERAL REQUIREMENTS

(a) Safety

Add to Sub-clause 1502(a) the following:

Information in respect of intersections, accesses, bus stops, traffic volumes, pedestrians etc is given in Part B of these Project Specifications.

(b) Providing Temporary Deviations

Add to Sub-clause 1502(b) the following:

The contractor shall keep the provincial traffic police; the municipal traffic departments and the engineer fully informed with regard to any changes in the normal traffic flow and obtain their approval for these changes.

During the non-working hours, all unnecessary obstructions to the traffic shall be removed and all signs no longer applicable to the situation shall be removed or effectively covered.'

It is a condition of this contract that not more than 1.5 km of deviation should be open to public traffic at any one time, and that not more than three separate deviations should be open at any one time. No additional payments will be made where situations arise that the contractor has deviations cross over the roadway under construction.

(i) Traffic Safety Officer

Add to Sub-clause 1502(i) the following:

The Contractor shall submit a CV of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall be made available to discuss road

safety and traffic accommodation matters whenever required by the Engineer.

Delete Sub-clause 1502(i), sub-sub-clauses (ii) and (iii) and replace with the following:

- (ii) Record on neat and dimensioned sketches and submit to the Engineer the position and sign reference number where applicable of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The position of each unit shall be adequately referenced to identifiable permanent features located along the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the Traffic Safety Officer and shall be signed by the Traffic Safety Officer before being submitted to the Engineer.

The records shall be amended whenever changes are made in the field and the revised detailed sketches shall be submitted to the Engineer. This shall include the recording of the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.”

- (iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9:30 and by 16:30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the Engineer such record sheets by 10:00 and by 17:00 each day. The traffic Safety Officer shall keep a duplicate book for this specific purpose.

The Traffic Safety Officer shall also submit to the Engineer by 10:00 each morning, a record of all matters pertinent to site safety and traffic accommodation throughout the site of works the previous day. He shall also record the daily labour returns of flagmen, stop/go and traffic signal control men employed.

The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and 3 labourers at his disposal 24 hrs a day and he shall be directly answerable to the Contractor’s Site Agent. The Traffic Safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel as shown on Figure 24 of Road Signs Note No.13. The traffic Safety Officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the Contract. The provision of the Road Safety Vehicle, driver, three labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the Contractor’s establishment on site.

Add to Sub-clause 1502(i) the following new sub-sub-clauses:

- (ix) Ensure that all obstructions, soil and gravel heaps, related to the Contractors activities be removed before nightfall where applicable and as instructed by the Engineer and that the roads are safe for night traffic.
- (x) The Traffic Safety Officer shall, in addition to the duties listed in Clause 1502 (i), also be responsible for removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, and shall be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.”

Add the following new Sub-clauses to Clause 1502:

(j) Public traffic

The contractor must plan and conduct his activities so as to bring about the least possible disruption to the traffic on the road. All halting of traffic will require the prior approval of the engineer and must be pre-arranged with the appropriate traffic authorities.

In all dealings with the public the Contractor shall bear in mind the public's right to enjoy the use of the road, and the Employer's desire to interfere as little as possible with this right. At all points of contact with the public, the Contractor shall deal with deliberate courtesy and understanding in any discussions or disputes.

(k) Failure to comply with provisions

The failure or refusal of the Contractor to provide barricades or traffic signs at the proper time, or to take the necessary precautions for the safety and convenience of public traffic as specified or instructed by the Engineer, shall be sufficient cause for the suspension of all

work under this Contract without any additional compensation to the Contractor until the required accommodation of traffic has been completed to the satisfaction of the Engineer. The above shall be sufficient cause for the Engineer to deduct penalties as follows:

- A fixed penalty of R5 000,00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the standard specifications and section B1500 of the Project Specifications.
- In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

The penalties shall be deducted from the payment certificate for the month in which the non-compliance occurs.

Payment will also be deducted in accordance with Payment Item B15.01 of these Project Specifications.

(l) Access to work area

Construction traffic will only be permitted to enter or leave the work area at points approved by the Engineer and as clearly indicated on the traffic management plans. When any access point is in use, flagmen shall be provided for each such point. At least two flagmen shall be stationed at the access point to control the movement of construction traffic, and to warn public traffic on both lanes of the existing road. It is not the purpose of these flagmen to stop public traffic flow.

(m) Extension of time for completion

Accommodation of public traffic on the works or any delays caused thereby, as well as any suspensions due to failure by the Contractor to comply with the provisions for the accommodation of traffic, will not be regarded as special circumstances for an extension of time.

C3.3 PARTICULAR SPECIFICATIONS

In addition to the Standardised and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

PART C: ENVIRONMENTAL MANAGEMENT PLAN

C.1 General

In order to ensure that the construction works is carried out in an environmentally sensitive matter, strict compliance to the Environmental Management Plan (EMP) guidelines is required. The purpose of the EMP is to:

- Encourage good management practices through planning and commitment to environmental issues,
- Provide rational and practical environmental guidelines to:
 - i. Minimise disturbance of the natural environment,
 - ii. Prevent pollution of land, air and water,
 - iii. Prevent soil erosion and facilitate re-vegetation.
- Adopt the best practicable means available to prevent or minimise adverse environmental impact,
- Develop waste management practices based on prevention, minimisation, recycling, treatment or disposal of wastes,
- Train employees and contractors with regard to environmental obligations.

C.2 Training and Induction of Employees

- The Contractor has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes sub-contractors, casual labour, etc.). The EMP shall be part of the terms of reference for all contractors, sub-contractors and suppliers.

C.3 Complaints Register and Environmental Incident Book

Any complaints received by the project team from the public will be recorded. The complaint should be brought to the attention of the site manager, who will respond.

The following information must be recorded:

- Time, date and nature of the complaint,
- Type of communication (telephone, letter etc),
- Name, contact address and telephone number of the complainant,
- Response and investigation undertaken and
- Actions taken and by whom.

All complaints received will be investigated and a response given to the complainant within 14 days.

All environmental incidents occurring on the site will be recorded. The following information will

be provided:

- Time, date, location and nature of the incident,
- Actions taken and by whom.
-

C.4 Site Cleanliness and Neatness

- Location of a construction camp is to be approved by the Engineer and is to be restored to its previous condition after completion of construction.
- The construction camp should preferably be fenced with a 1.8m bonnox fence or similar approved.
- All materials, equipment, plant and vehicles must be stored within the construction camp.
- A dedicated area must be made available for construction staff to change and store their personal belongings.

C.5 Access

Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.

Access roads utilised by the Contractor must be maintained in good condition.

C.6 Borrow Pits

- Mining authorisations (permits) for borrow pits must be obtained from the Department of Minerals and Energy (DME) in consultation with the Department of Water Affairs and Forestry (DWAF).
- Spoil dumps resulting from borrow pits must not interfere with any natural surface drainage.
- Borrow pits must be rehabilitated after use in accordance with the requirements of DME and DWAF.

C.7 Dust Control / Air Quality

- Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
-
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- Special care must be taken in areas where the route passes close to schools and residential areas.
- The speed of construction vehicles must be reduced.

C.8 Fauna

- Contractor staff may not chase, catch or kill animals encountered during construction.

C.9 Fire Prevention and Control

- Smoking is prohibited in the vicinity of flammable substances.
- The contractor must ensure that fire-fighting equipment is available on site, particularly

where flammable substances are being stored or used, and that construction staff are aware of where it is kept and how it is operated.

- Fires started for comfort (warmth) are prohibited, due to the risk of veld fires and risk to adjacent property owner's lands.

C.10 Grave Sites

- Gravesites in close proximity to the road must not be disturbed during construction.

C.11 Materials Handling and Spills Management

- Any hazardous materials to be used during construction (e.g., lime, fuel, paint, etc) are to be stored in a designated area at the campsite.
- The storage containers/facilities (including any diesel/petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that accidental spillage does not pollute the environment.
- Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.
- Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other chemicals.
- Any spill of potentially hazardous materials must be cleaned up immediately (Potentially hazardous materials on site include paint, oil, grease, fuel, turpentine, etc).
- The area of contaminated soil or spill must be deposited into the hazardous waste container(s).
- The contractor should keep Peat Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.
- All spills are to be recorded in the environmental incident book.

C.12 Noise

- Noise generating activities must be restricted to between 07h00 and 17h00 Monday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.
- All equipment, vehicles and machinery must be in good working condition and be equipped with sound mufflers if necessary.
- Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

C.13 Pollution Control

- Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.
- All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

C.14 Rivers and Streams

- Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
- Erosion control measures must be employed both during and after construction.
- No impediments to natural surface water flow, other than approved erosion control measures, must occur.

C.15 Safety

- Safety measures, such as detour signs, must be implemented during construction to ensure the safety of workers, pedestrians and drivers/passengers in vehicles in the vicinity of construction work.
- Special care must be taken in the vicinity of schools to ensure the safety of children wishing to cross the road under construction.
- The relevant signage (e.g. speed control signs) must be erected alongside the road during the operation phase in order to control traffic.
- Accommodation must be made for pedestrian pathways alongside the road during the construction and operation phases.

C.16 Soil Management

- Stormwater drainage pipes must be installed alongside the road in all areas susceptible to soil erosion.
- Erosion should be minimised by the construction of meadow drains and the planting of indigenous vegetation on the side slopes and drains to reduce flow velocity of stormwater.
- Spoil from cuts may be used in existing erosion galleys.
- Stone pitching and gabions should be constructed at pipe culvert outlets.
- Accidental spills of contaminants onto the ground e.g. oil, concrete, fuel and chemicals should be removed together with the contaminated soil.
- If necessary, an absorbent such as Peat Sorb should be used the aid in cleaning up the spill. The contaminated soil should be disposed of in an appropriate container, depending on its classification.
- Servicing and re-fuelling of vehicles must only be carried out at construction camp.

C.17 Worker Conduct

Code of Conduct for Construction Personnel:

Do not leave the construction site untidy and strewn with rubbish which will attract animal pests.
Do not set fires.
Do not cause any unnecessary, disturbing noise at the construction camp/site or at any designated worker collection/drop off points.
Do not drive a construction-related vehicle under the influence of alcohol.
Do not exceed the national speed limits on public roads or exceed the recommended speed limits on the site.
Do not drive a vehicle which is generating excessive noise or gaseous pollution (noisy vehicles must be reported and repaired as soon as possible).
Do not litter along the roadsides, including both the public and private roads.
Do not pollute any water bodies (whether flowing or not).
No member of the construction team is allowed to enter the areas outside the construction site.

C.18 Traffic Disturbances and Diversions

- Any traffic diversions must be undertaken with the approval of all relevant authorities and in accordance with all relevant legislation.
- Wherever possible, traffic diversion must only take place on existing disturbed areas and remain within the existing road reserve.

- Traffic diversion routes must be rehabilitated after use.

C.19 Vegetation

- Only vegetation falling directly on the route must be removed where necessary.
- Alien vegetation within the road reserve must be eradicated, and management measures must be implemented for future control of these species.
- Vegetation that has been removed from large areas (e.g. on traffic diversion routes) during construction must be replaced with indigenous vegetation after construction has been completed.

C.20 Waste Management

- All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
- The contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.
- No disposal, or leakage, of sewage must occur on or near the site.
- All hazardous waste (e.g. oil, paint, empty lime bags, contaminated wash water, etc) must be stored in leakproof containers and disposed of at a registered hazardous waste disposal site.
- The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
- Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimise the occurrence of littering.
- Concrete rubble must be collected and disposed of as directed by the Project Manager.
- Each working area must be cleared of litter and building waste (e.g. rubble, wood, concrete packets etc) on completion of the day's work.
- Any spill around the container(s) should be treated as per Section C11 and C16.

DR PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

C4. Site Information

C4.1 Site Information

Location of the project

Province	Mpumalanga Province
District	Gert Sibande District Municipality
Municipality	Dr Pixley Ka Isaka Seme Local Municipality
Ward	5

Settlement	Location relative to Wakkerstroom
Paardeplaas 1	40 km east of Wakkerstroom town
Paardeplaas 2	45 km east of Wakkerstroom town
Tafelkop	15 km east of Wakkerstroom town
Vaalbank 1	45 km north-east of Wakkerstroom town
Vaalbank 3	50 km north-east of Wakkerstroom town



Figure 1a: Locality Map

C4.2 Geohydrological Investigation

The Geohydrological Investigation report will be made available upon request.

C4.3 Photographs of Project Area

Paardeplaas 1



Photo 1: Existing House Holds with no formal services



Photo 2: Existing House Holds with no formal services

Paardeplaas 2



Photo 3: Existing House Holds with no formal services



Photo 4: Informal Water Source for settlers in Paardeplaas

Vaalbank 1



Photo 5: Existing House Holds with no formal services

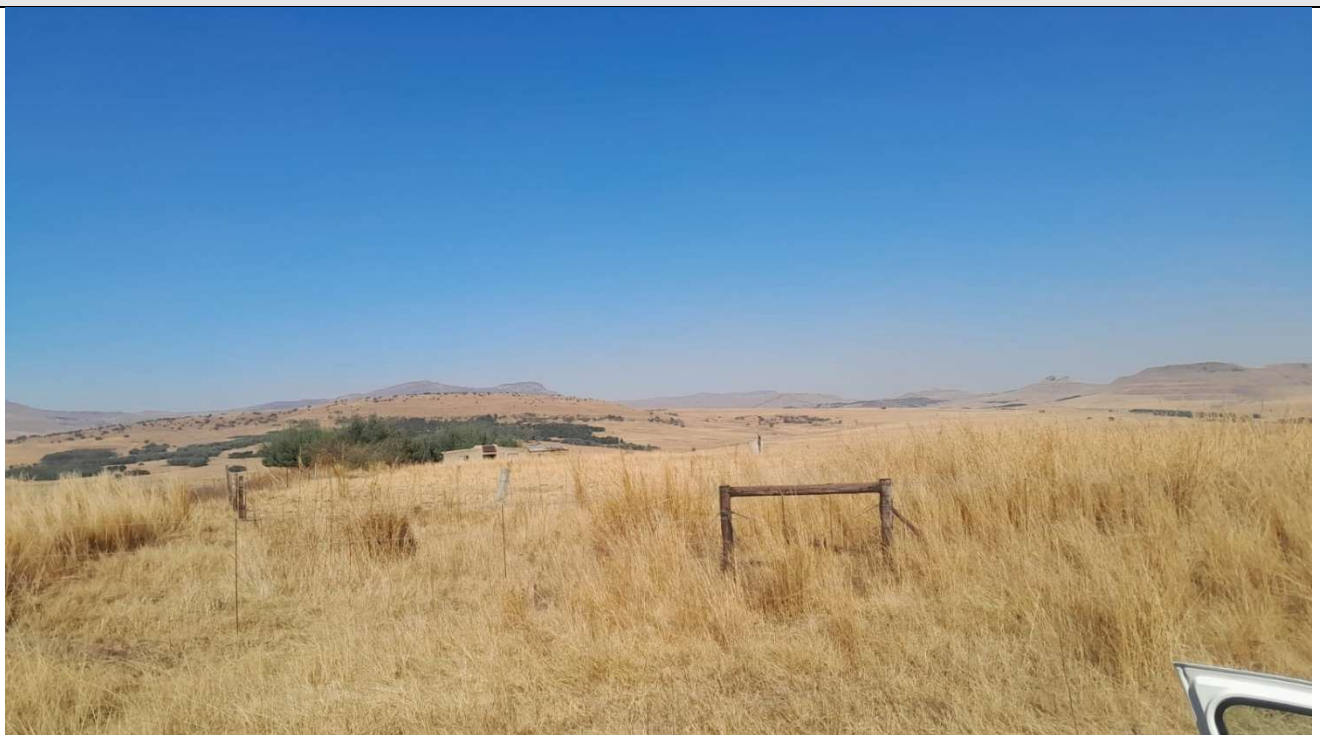


Photo 6: Existing House Hold and open field

Vaalbank 2



Photo 7: Existing Borehole (unequipped)



Photo 8: Mining Activities near the Existing unequipped Borehole in Vaalbank 2 area

Vaalbank 3



Photo 9: Existing House Holds with no formal services



Photo 10: Existing House Hold and open field

Taffelkop



Photo 11: Scattered House Holds in Taffelkop

ANNEXURES

ANNEXURE A

SCHEDULE OF PERSONNEL AND EMPLOYEES

The Tenderer shall state below the number of Personnel and Employees to be employed on the Works.

PERSONNEL AND EMPLOYEES	TENDER			TENDER
	FULL TIME	PART TIME	FULL TIME	PART TIME
1. Technical staff				
2. Clerical staff				
3. Artisans				
4. Semi-skilled				
5. Unskilled labour				
Total				

State the name, qualifications and experience of permanent Site agent:

Date:

SIGNATURE OF TENDERER:

ANNEXURE B

PRELIMINARY PROGRAMME

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed order and rate of progress for each portion of the work comprising this Contract. The programme shall be consistent with and in support of his time required for completion and shall be in accordance with the requirements of this tender.

[illegible]

SIGNATURE OF TENDERER:

DPKISLM discourages fraud and corruption.

ANNEXURE C

FINANCIAL DETAILS, STATEMENTS AND BANK REFERENCES

1. FINANCIAL STATEMENTS

I/We agree, if required, to furnish a copy of the latest audited set of financial statement together with my/our Director's and Auditor's report for consideration by the DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY.

2. DETAILS OF CONTRACTOR'S BANK ACCOUNT

I/We furnish the following information:

- a) Account Holder Name:.....
- b) Name of Bank:.....
- c) Branch of Bank:
- d) Town/city/suburb where bank is situated:.....
- e) Contact Person at the Bank:.....
- f) Telephone number of Bank: Code: Number:
- g) Account Number:.....
- h) Bank rating (include confirmation from bank or financial institution):.....

I/We hereby authorise the Employer to approach the above Bank for a reference.

SIGNED ON BEHALF OF THE TENDERER:.....

DATE:

ANNEXURE D

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall apply to this contract, and the Employer undertakes that the only variations from the General Conditions of Contract are as follows:

SCC 1 Clause 1(1)(1) **“Employer** “means DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY
Herein represented by their Nominee.

SCC 2 Clause 1(1) m **“Engineer”** means the Employer’s representative.

SCC 3 Clause 14 **Survey References**

The following sub-clause is added at the end of Clause 14(3) and is numbered 14(4):

“The Contractor shall take adequate precautions to preserve any permanent beacons such as erf boundary pegs, reference marks and bench marks which may be present on or in the vicinity on the site, irrespective of whether any such beacon may have been placed before or during the construction period. “Should any such beacon be distributed by any act or omission on the part of the Contractor or any officer, servant, agent or invitee of the Contractor then the Contractor shall arrange for the displaced beacon to be replaced by a registered land surveyor within such limits of time as the Engineer may prescribe and all costs, charges and expenses arising from such replacement shall be borne by the Contractor.

“Survey diagrams relating to the replacement of beacons in the circumstances described in the previous paragraph shall be submitted by the land surveyor concerned to the Director for Works of the Mpumalanga Department of Works for approval. IN this regard, attention is drawn to Clause 35(1) of the Survey Act No. 9 of 1927 (as amended).”

SCC 4 Clause (1) **Drawings and Documents**

The following shall be added to this Sub-Clause:

Upon receipt of the final payment in respect of the Contract, the Contractor shall forthwith return to the Employer’s name. “None of the documents herein before mentioned shall be used by either of the parties hereto for any purpose other than the performance of their respective obligations under the Contractor. “Drawings supplied to the Contractor by the Employer or Engineer, or supplied by the Contractor and approved of by the Engineer or Employer shall not be departed from without the written instructions of the Engineer or Employer. “All dimensions will be figures on the drawings and are to be considered correct even if not to scale. No dimension shall be obtained by scaling.”

SCC 5 Clause 24 **Competent employees**

Add the following:

Approved on-site training of the labour force by the Contractor will be required for all facets of the construction work involved under this contract.

SCC 6 Clause 16(2) **Contractor’s copies**

-
- SCC7** The Contractor will be issued free of charge two sets of paper prints of all drawings, one copy of the tender document and one copy of the signed contract document. Additional copies will be to the Contractor's account.
Clause 38(7) **Workmen's compensation**
- Amend Clause 38(7) as follows:
- The Contractor shall provide proof, that he has paid all contributions required in terms of the provisions of the Workmen's Compensation Act (Act No 30 of 1941, as amended), within 28 days of the Commencement Date.
- SCC 8** Clause 45(2) **Extension of Time for Completion**
- Where the Engineer grants the Contractor extension of time for the completion of the Works the Contractor shall not be entitled to any additional payment for items included under Quantities in respect of such extension of time. This provision shall, however, not prejudice any claim under Clause 51 of the Conditions of Contract.
- SCC 8(b) Shortage of Materials**
- The Tenderer shall ascertain that materials on which his tender based will be available on a continuous basis for the execution of the contract. No additional remuneration or extension of time will be granted should it become necessary to obtain material from other sources.
- SCC 9** Clause 49(2) **Application of Contract Price Adjustment**
- These clauses shall be deleted in total. Allowances for escalation must be made in the rates tendered for the items stated in the Schedule of Quantities, ie rates shall remain fixed for the full contract period.
- SCC 10** Clause 52(2) **Valuation of Material Brought onto site**
- Add the following:
- Payment for materials on site will only be made for those materials which are physically on site, for which proof of ownership by the Contractor is given and for which ownership has been ceded to the Employer.
- The Contractor shall remain responsible for the materials and shall insure them against all risks until such time as they are used or built into the works and taken over by the Employer.
-

Annexure E: Drawings for Tender



DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5

T05/2026

DETAILED DESIGN DRAWINGS

AUG 2026

PREPARED FOR:

DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY

Private Bag X 9011
VOLKSRUST
2470

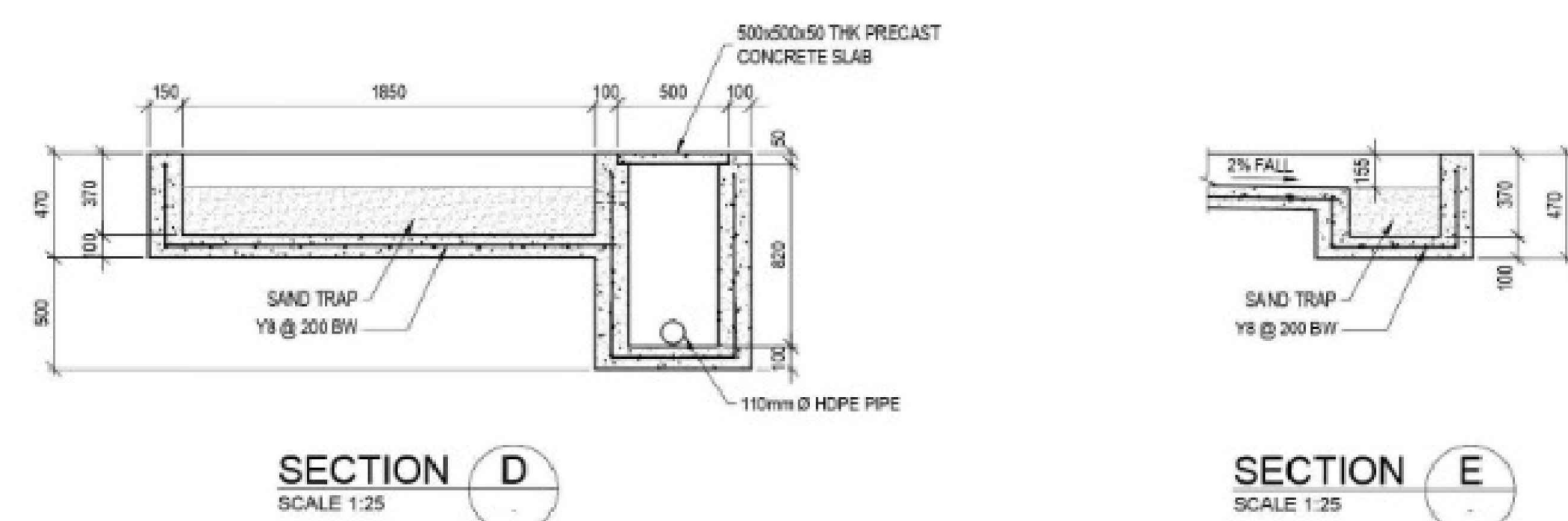
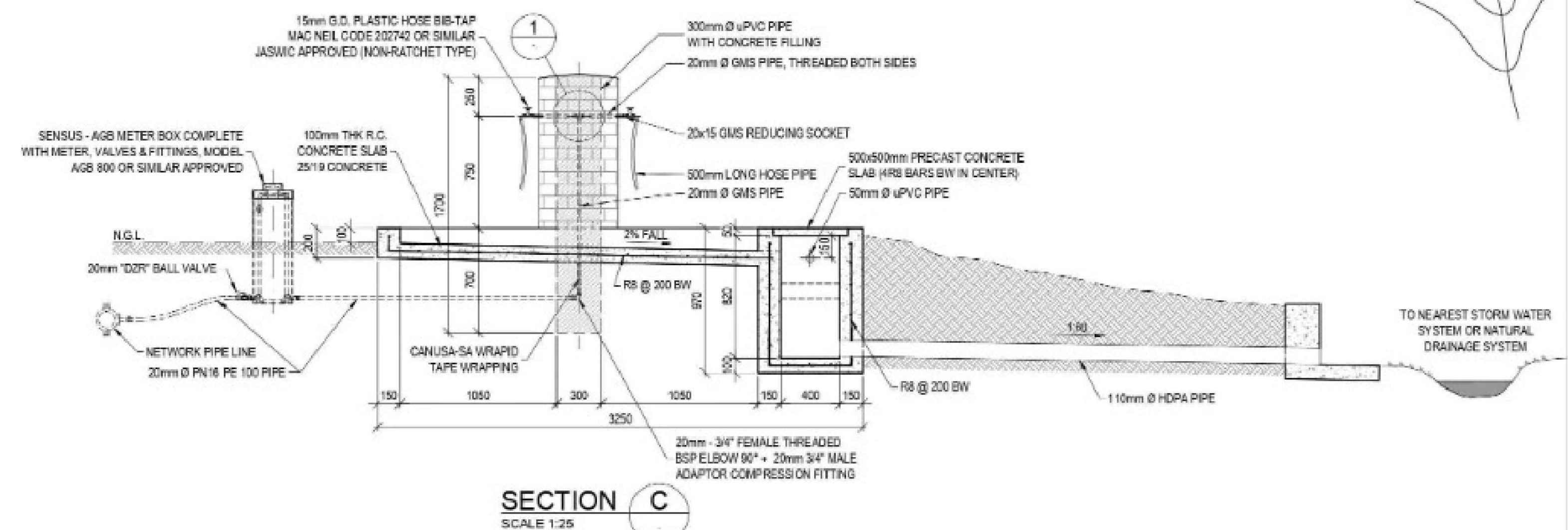
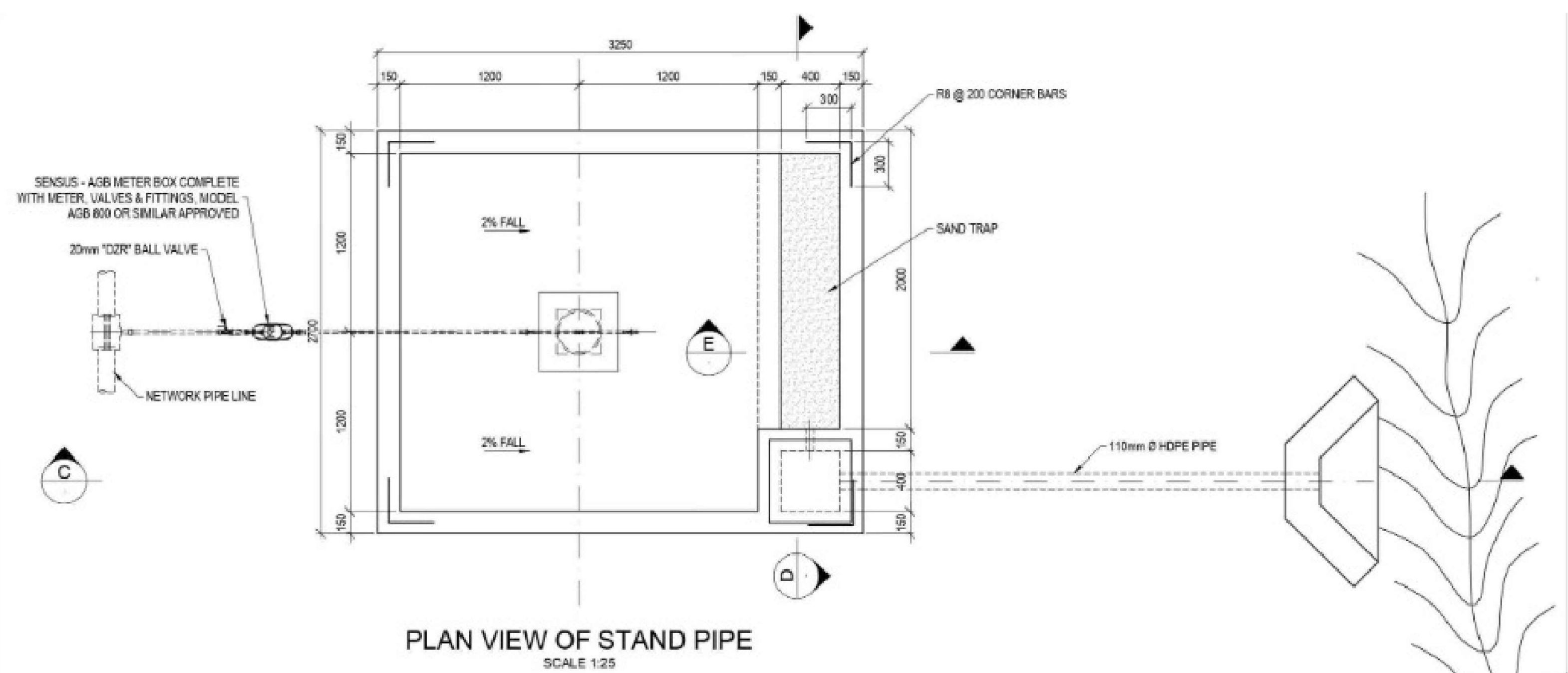
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PREPARED BY:

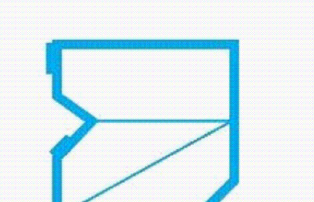


ZENKCON ENGINEERS (PTY) LTD
41 Norma Jean Square
2 Bernini Street
Die Hoewes
CENTURION
0157

Tel: (012) 001 5300
Fax: (012) 643 0204
email: office@zenkcon.co.za



LAYOUT FOR AREAS UNDERLAIN BY DOLOMITE OR WITH STEEP CROSS FALLS

AMENDMENTS				CONSULTANTS DETAIL		DESIGNED MLM		LOCATION OF PROJECT:				PROJECT STATUS				
S/N	DATE	RED BY	DESCRIPTION	 ZENKCON ENGINEERS (PTY) LTD 41 Norma Jean Square 21 Bernini Street Die Hoewes CENTURION 0157 Tel: (012) 001 5300 Fax: (012) 643 0204 email: office@zenkcon.co.za	 DR. PIXLEY KA ISAKA SEME LOCAL MUNICIPALITY Private Bag X 9011 VOLKSRUST 2470 Tel: 017 734 6100	SIGNATURE: _____	DATE: _____	WAKKERSTROOM DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5 TYPICAL STAND PIPE AND TAP DETAILS				☐ CONCEPT DRAWING ☒ DETAILED DESIGN DRAWING ☐ APPROVED FOR CONSTRUCTION ☐ AS BUILT DRAWING				
													INSPECTOR OF WORKS: _____			
													SIGNATURE _____ DATE _____			
													REMARKS: _____		ORIGINAL PAPER SIZE: PAPER SIZE: A1	
													DRAWING NO: ZNK122-26/04/06/SD01		SHEET NO: 1 OF 1	
									CONTRACT No. : T05/2026		PROJECT No. : PROJECT_NO\ZNK122-26	SCALE : 1:1000	DATE : 21 / 08 / 2026	REVISION: 		
									DRAWING APPROVED (DPKJSLM)							
									DRAWING APPROVED (DPKJSLM)							
									SIGNATURE: _____							
									SIGNATURE: _____							

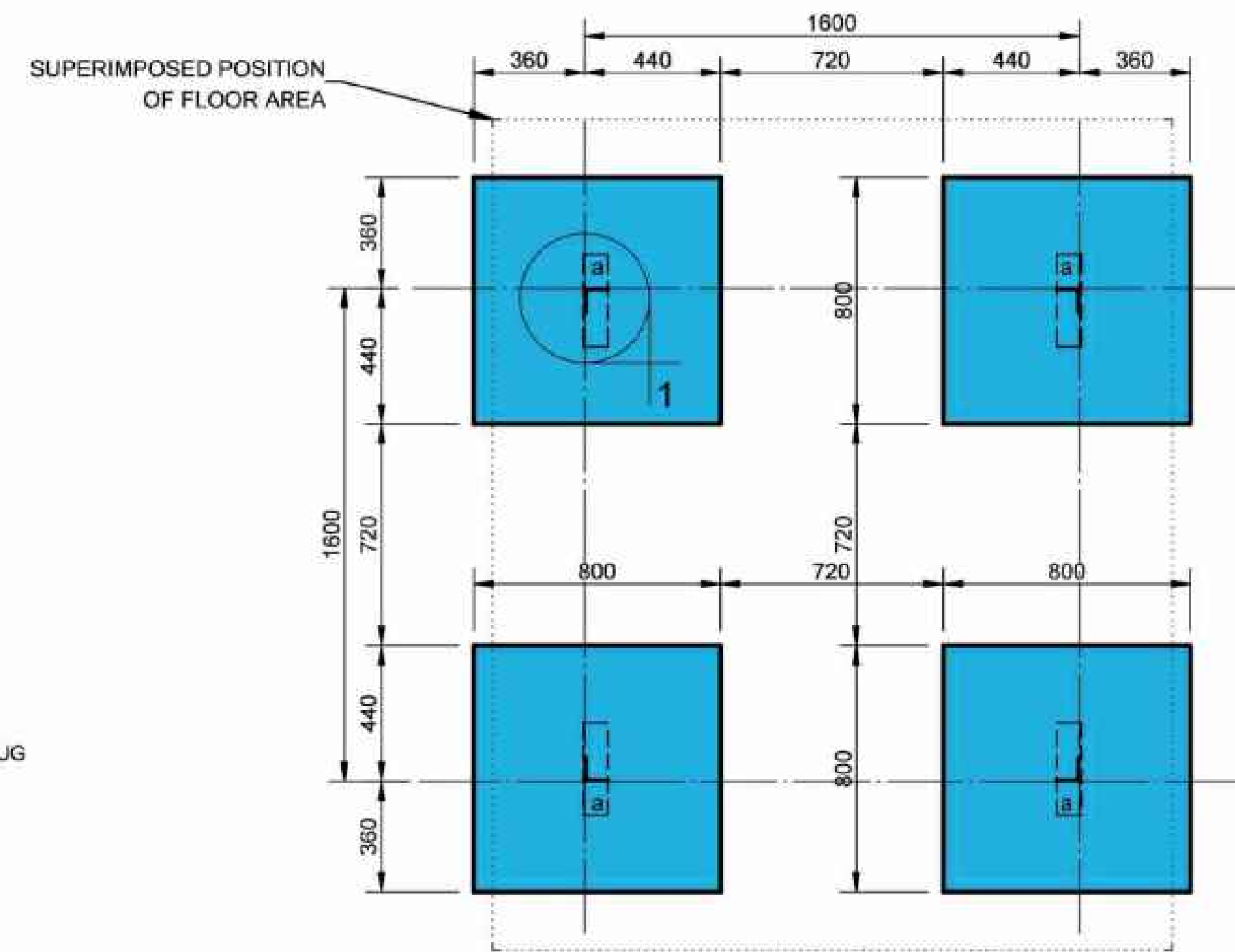


Diagram illustrating the geometry of a square floor area. The overall dimensions are 1600 (width) and 1520 (height). The diagram shows the square with its axes of symmetry (labeled ΔC and ΔD) and the superimposed position of the floor area. The corners are labeled 'a' and 'b', and the distance from the center to the corner is labeled 'e'. A circular detail is shown at the top-left corner, and a dashed line indicates the 'SUPERIMPOSED POSITION OF FLOOR AREA'.

LAYOUT PLAN E-E
1:25

 SUPERIMPOSED POSITION
OF FLOOR AREA

PROJECT STATUS			
☐	☒	☐	☐
CONCEPT DRAWING	DETAILED DESIGN DRAWING	APPROVED FOR CONSTRUCTION	AS BUILT DRAWING
INSPECTOR OF WORKS: _____			
SIGNATURE _____			DATE _____
REMARKS: _____		ORIGINAL PAPER SIZE: PAPER_SIZE: A1	
DRAWING NO. ZNK122-26/04/06/SD02		SHEET NO. 1 OF 6	REVISION 

DETAIL 2
1:5

DETAIL 3
1:5

VIEW B
1:5

BASE PLATE DETAIL 1 (4 OFF REQUIRED)
1:5

M10 U-SHAPED BOLT HAVING
125mm LONG LEGS OF WHICH
THE ENDS ARE THREADED FOR A
A DISTANCE OF 50mm, COMPLETE
WITH NUTS AND WASHERS

PIPE CLAMP DETAIL (6 OFF REQUIRED)

50mm WIDE x 70mm HIGH x 140mm
LONG SHAPED MERANTI BLOCK
HAVING 2 x 12mm DIA. HOLES
DRILLED FOR ANCHOR BOLT

Technical drawing showing the connection of a 75 PL 6 x 75 LONG (Fully Welded to 'a') with 1-12 DIA. HOLE FOR 1-M10 BOLT (No. REQUIRED : 8x) SEE FLOOR LAYOUT FOR POSITIONS.

Dimensions and labels:

- Top horizontal dimensions: 10, 35, 35, 80.
- Left vertical dimensions: 40, 2317.
- Right vertical dimensions: 25, 40, 40, 105.
- Bottom horizontal dimensions: 6, 35, 39, 80.
- Labels: 'a' (vertical plate), 'b' (horizontal plate), 'd' (diagonal plate), 'e' (horizontal plate).

VIEW A

1:5

[illegible]

CONSULTANTS DETAIL



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Tel: 017 734 6100

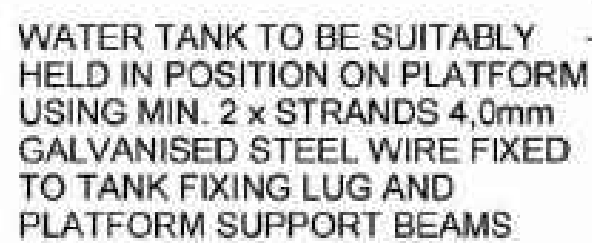
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	SIGNATURE: _____ DATE: _____
	DRAWING CHECKED BY MLM
	SIGNATURE: _____ DATE: _____
	DRAWN NS
	SIGNATURE: _____ DATE: _____
	DRAWING APPROVED (DPKISLM)
	SIGNATURE: _____ DATE: _____
	DRAWING APPROVED (DPKISLM)
	SIGNATURE: _____ DATE: _____
	SIGNATURE: _____ DATE: _____

LOCATION OF PROJECT:			
WAKKERSTROOM			
DESCRIPTION OF PROJECT			
DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5			
ELEVATED TANK DETAILING			
CONTRACT No. :	PROJECT No. :	SCALE :	DATE :
T05/2026	PROJECT_NO:ZNK122-26	1:1000	21 / 08 / 2026

PROJECT STATUS	
 CONCEPT DRAWING	 DETAILED DESIGN DRAWING
 APPROVED FOR CONSTRUCTION	 AS BUILT DRAWING
INSPECTOR OF WORKS: _____	
SIGNATURE _____ DATE _____	
REMARKS: _____ _____ _____	ORIGINAL PAPER SIZE: _____ PAPER SIZE: A1 SHEET NO: _____ 3 OF 6  REVISION
DRAWING NO: _____ ZNK122-26/04/06/SO2D	



PROJECT STATUS			
 CONCEPT DRAWING	 DETAILED DESIGN DRAWING	 APPROVED FOR CONSTRUCTION	 AS-BUILT DRAWING
INSPECTOR OF WORKS:			
SIGNATURE _____			DATE _____
REMARKS:		ORIGINAL PAPER SIZE:	
DRAWING NO: ZNK122-26/04/06/SD02		PAPER SIZE: A1	
		SHEET NO: 4 OF 6	
		 REVISION	



MISCELLANEOUS FITTINGS
1) PIPE CLAMPS AS DETAILED ON PLAN NO. 1402A0 25.3

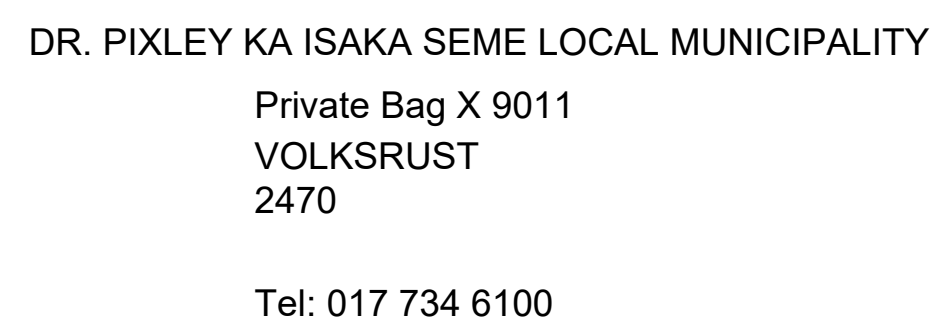
CONSULTANTS DETAIL



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WAKKERSTROOM

DRILLING OF BOREHOLES IN WAKKERSTROOM WARD 5

ELEVATED TANK DETAILING

CONTRACT No. :
T05/2026

PROJECT No. :	PROJECT NO:ZNK122-26
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SCALE :
1:1000

DATE :
21 / 08 / 2026

DRAWING NO.
ZNK122-26/04/06/SD02

SHEET NO:
5 OF 6

0	REVISION
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