TENDER DOCUMENT

TSWELOPELE
LOCAL MUNICIPALITY
A MUNICIPALITY IN PROGRESS

Project Name	Project Number
REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD)	SCM/TSW/07/2026-2027

Contact: Mr. Thabiso Matyesini / Mr. Lebohang Malokase

Tel: (051) 8531111 Fax: (051)8531332 (during office hours)

Name of the Bidder……

Amount (vat inclusive) ……

Address……

……

……

Contact Number……

E-mail Address……

Closing date: 27 January 2027 at 12H00

VERY IMPORTANT NOTICE ON DISQUALIFICATIONS:

BY SUBMITTING THE BID THE BIDDER UNDERTAKES TO ABIDE BY THE TERMS AND CONDITIONS OF THIS TENDER INCLUDING BUT NOT LIMITED TO THE RULES OUTLINED BELOW

- A bid not complying with the requirements stated hereunder will be regarded as not being an "Acceptable bid", and as such will be rejected.
- "Acceptable bid" means any bid which, in all respects, complies with the conditions of bid and specifications as set out in the bid documents, including conditions as specified in the Preferential Procurement Policy Framework Act (Act 5 of 2000) and related legislation and regulations, in terms of which provision is made for this policy.
- In this document and other documents referred to but not attached, the following words are synonymous with each other.
    a. CLIENT, EMPLOYER, TSWELOPELE LOCAL MUNICIPALITY.

    b. BID, TENDER AND VARIATIONS THEREOF

    c. JOINT VENTURE / CONSORTIUM

    d. TENDERER, BIDDER, CONTRACTOR

1. FULL DESCRIPTION OF THE TENDER

REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD)

VERY IMPORTANT NOTICE ON DISQUALIFICATIONS:

BY SUBMITTING THE BID, THE BIDDER UNDERTAKES TO ABIDE BY THE

2. RULES FOR BIDDING

2.1 The municipality is not bound to accept any of the proposals submitted and reserves the right to call for presentations from short-listed bidders before final selection,

2.2 Documents submitted by bidders will not be returned. The municipality reserves the right to return late bid submission unopened,

2.3 The municipality reserves the right to terminate this appointment or temporarily defer the work, or any part thereof, at any stage of completion should the municipality decide not to proceed with the bid,

2.4 The service provider must be a single legal entity with all other necessary expertise secured via sub-contract, or under a joint venture arrangement.

2.5 The bidding entity shall be the same entity that will execute the bid. Any bid found to be fronting for another entity or entities shall be disqualified immediately,

2.6 Bidders may ask for clarification on these bid documents or any part thereof up to close of business week before the deadline for the submission of the bids,

2.7 Bidders may not contact the municipality on any matter pertaining to their bid from the time when the bids are submitted to the time the contract is awarded. Any effort by a bidder to influence bid evaluation, bid comparisons or bid award decisions in any manner, may result in rejection of the bid concerned,

2.8 Should the contract between the municipality and the service provider be terminated by either party due to reasons not attributable to the service provider, the service provider will be remunerated for the appropriate portion of work completed up to a maximum amount of not more than the total fee bid by the service provider for the appropriate phase of the project during which the appointment was terminated,

2.9 Bidders should not scratch out without initialling next to the amended rates or information, affecting the evaluation of the bid,

2.10 The Bid document must be properly signed by a party having the authority to do so, according to the example of “Authority or Signatory”,

2.11 Evidence that the municipal rates and taxes or municipal charges owed by the preferred bidder or any of its directors to the municipality or municipal entity, or to any other municipality or municipal entity, are not in arrears for more than three months, in terms of lease agreement, proof that Municipal charges owed on the premises are not in arrears for more than 90 days must be attached (Invoice/statement from the Lessor), lease agreement alone will not be accepted,

2.12 Bidders will be disqualified if any bidders who during the last five years has failed to perform satisfactorily on a previous contract with the municipality, municipal entity or any other organ of state after a reasonable written notice was given to that bidder that performance was unsatisfactory or appears on the register / database of defaulters,

2.13 The Accounting officer must ensure that irrespective of the procurement process followed, no award may be given to a person –

2.13.1 Who is in the service of the state, or;

2.13.2 If that person is not a natural person, of which any Director, Manager, Principal Shareholder or Stakeholder, is a person in the service of the state; or;

2.13.3 Who is an advisor or consultant contracted with the municipality in respect of contract that would cause a conflict of interest?

2.14 Failure by the bidder to disclose with the bid submission any form of conflict of interest including disclosure on a person(s) who is in the service of the state or any immediate blood relative in the service of the state will lead to disqualification,

2.15 **All functionality and all other returnables will be exposed to verification process, and any returnable proven to be a fake document, the bidders document will be rejected o subjected to disqualification**.

2.26 The municipality is not liable for any documents delivered via courier companies and by post. No official is going to sign the receipt of the tender document,

2.27 Tender documents must be submitted in a sealed envelope clearly marked with the project name and number,

2.28 Fully completed and signed tender documents must be deposited into the tender box located at: 01 Bosman Street, Civic Centre, Bultfontein,9670. The sealed envelope must specify the following:

2.28.1 Bid number

2.28.2 Closing Date and time

2.28.3 The name and address of the tenderer

2.29 The service provider must ensure that all staff working under this contract are adequately trained prior to the commencement of the contract.

2.30. The Municipality has the right to enter into negotiation with a prospective contractor regarding any terms and conditions, including price(s), of a proposed contract.

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T1.1 BID NOTICE AND INVITATION TO BID

SCM/TSW/07/2026-2027: REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD).

Tswelopele Local Municipality hereby invites suitably qualified Bidder for the Replacement of old asbestos pipeline and accompanying appurtenances in Tikwana (Hoopstad). Bids marked for the attention of the Municipal Manager must be submitted in a sealed envelope marked **"SCM/TSW/07/2026-2027: REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD)** must be deposited in the tender box located at Tswelopele Local Municipality no later than **27 January 2027 at 12H00**. Offices; No. 1 Bosman Street; Civic Centre, Bultfontein; 9670.

Tender documents will be available from Tswelopele Local Municipality Website www.tswelopele.gov.za and www.etenderportal.gov.za from the **27 November 2026**.

The tenders will be evaluated and adjudicated in line with the approved Supply
Chain Management Policy of Tswelopele Local Municipality using 80/20 preference point system in accordance with the Preferential Procurement Policy Framework Act.
The tenders will also be adjudicated and evaluated using:

1. Returnables.
2. Functionality
3. PPP Calculations = 80
4. Specified Goals = 20 (Race, Gender, Disability and Youth)

Tenderers must be registered with the **CIDB Grading – 7CE or higher** class of construction works. There is no site briefing for the tender.

Tenders which are late or submitted by facsimile or electronically will not be accepted. Prices quoted must be valid for 90 days from closing date of this tender. The municipality does not bind itself to accept the lowest or any tender and reserves the right to accept any tender either wholly or a part thereof or to disclose reasons for their decision. Tenders will remain valid for 90 (ninety) days.

Enquiries can be directed to Mr LS Malokase and Mr TJ Matyesini at (051) 853 1111 during office hours.

Mr T MASUKELA
ACTING MUNICIPAL MANAGER
TSWELOPELE MUNICIPALITY
1 BOSMAN STREET
BULTFONTEIN
9670

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*NAME OF MUNICIPALITY/ MUNICIPAL ENTITY*)					
BID NUMBER:	SCM/TSW/07/2026-2027	CLOSING DATE:	27 January 2027	CLOSING TIME:	12:00
DESCRIPTION	REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD)				
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:	

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

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
DEPARTMENT		CONTACT PERSON	
CONTACT PERSON		TELEPHONE NUMBER	
TELEPHONE NUMBER		FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

Initial here: _____

PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.

1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR ONLINE**

1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.

2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.

2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.

2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.

2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.

2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.

2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

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

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER: ……

CAPACITY UNDER WHICH THIS BID IS SIGNED: ……

DATE: ……...

T1.2 BID DATA

The **Standard Conditions of Bid** makes 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.

Clause number	Data
F.1.1 ACTIONS	The Employer is: The Municipal Manager Tswelopele Local Municipality 01 Bosman Street Civic Centre Bultfontein 9670
F.2.1 ELIGIBILITY	Companies that fit all the requirements of this bid as specified.
F.2.7 CLARIFICATION MEETING	*NONE*
F.2.12 ALTERNATIVE TENDER OFFERS	*No alternative bid is to be accepted!*
F.2.13.2 SUBMITTING A TENDER OFFER	The **whole original** bid document, **as issued by the Municipality**, shall be submitted**.** Bids may only be submitted on the Bid documentation issued by the municipality
F.2.14 CLOSING TIME	The closing time for submission of bid offers is: Date: **27 January 2027** Time: **12H00** Telephonic, telegraphic, facsimile or e-mailed bid offers will **not** be accepted.
F.2.15 TENDER OFFER VALIDITY	1. The employer will have up to 90 days (working days) from the closing date within which to consider submitted bids. 2. The successful bidder will have up to 10 days to respond to the service offer.

Clause number	Data
F.1.9 INSPECTIONS, TESTS AND ANALYSIS	Access should be provided to the municipality for the inspection of the tenderer's offices if required.
F.1.10 CERTIFICATES AND ATTACHMENTS	The bidder is required to attach the following **Valid documents** to the tender document: a. Proof of registration on Central Supplier Database [Last verified between the **date of advert** and the **closing date**] detailing all compliance requirements of the Bidder; b. SARS Pin to be attached – the Municipality will be verifying the tax status of the bidder on evaluation before the award. c. Evidence (municipal account statement) that the municipal rates and taxes or municipal charges owed by the bidder or any of its directors to the municipality or municipal entity, or to any other municipality or municipal entity, are not in arrears for more than three months, in terms of lease agreement, proof that Municipal charges owed on the premises are not in arrears for more than 90 days must be attached, lease agreement alone will not be accepted, d. CIDB Grading – 7 CE or higher class of construction work. e. Attach latest complete set of Audited Financial Statements (AFS) , independently prepared and signed off by a registered Auditor or Accounting officer in good standing with a recognised professional regulatory body (e.g. IRBA, SAICA, or CIPA / relevant statutory professional board) f. Prospective bidder must comply with any related legislation. g. Submit the above documents (a to e) for each company if bidding as a joint venture h. Joint venture, consortium agreements (if applicable). **Note:** Failure to attach the above documents will lead to automatic disqualification from further evaluation
F.1.11 OPENING OF BID SUBMISSIONS	There will be public opening of bids. The Municipality will publicise the tender opening register on the website: www.tswelopele.gov.za after the closing date.
F.1.12 TWO-ENVELOPE SYSTEM	A two-envelope procedure will **not** be followed.

F.1.12 ARITHMETICAL ERRORS	a) Where there is a discrepancy between the amounts in figures and in words, the amount in figures shall govern. b) If bills of quantities (or schedule of quantities or schedule of rates) apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the rate shall govern and the line-item total shall be corrected. c) Where there is an error in the total of the prices either as a result of corrections required by this checking process or in the tenderer's addition of
Clause number	**Data**
	prices, the total of the prices shall be adjusted to reflect the arithmetically correct summation of corrected line-item totals. Consider the rejection of a tender offer if the tenderer does not accept the correction of the arithmetical errors in the manner described above.
F.1.13 EVALUATION OF BID OFFERS	The preference procedure for evaluation of responsive bid offers shall be the **80/20**-point preference system. - where 80 points will be allocated in respect of price - 20 points will be allocated towards specific goals - Note: All bids will be evaluated firstly on returnable compliance and functionality before the evaluation on 80/20-point system Add to F.1.13 The Municipality will perform a risk analysis on the tenderer having the highest ranking / number of points to ascertain if any of the following, as relevant, present an unacceptable commercial risk to the employer: *a) Unduly high or unduly low tendered rates or amounts in the tender offer;* *b) Contract data provided by the employer; or* *c) The contents of the tender returnable which are to be included in the contract.* Risk Analysis In Table below, the percentage deviation of the tendered amount is indicated. The risk to the Municipality increases where rates of tenderer's deviate by more than 10% and less than 10% below average. Too low rates result in cash flow problems to the contractor, slower progress of the works, increased safety risks and reduction in quality of work; but Alternatively, where rates are more than 10% higher than the average tendered rates, the risk to the Municipality increases with regard to a possible increase in project costs when the quantities increase substantially. The risk involved will be calculated using the below formula, where the numerator is the bidder's price over the denominator of bidder's average price (only those that made it through the functionality stage to the final stage of the evaluation) or the Engineer's estimates. Risk factor= $\left(\frac{Bid\ price\ per\ tenderer}{Bidders\ Average\ price\ or\ Engineer's\ estimates} - 1\right)$ x 100

	<table><tr><td>Critical Sections</td><td></td></tr><tr><td>High Risk, Low Rate</td><td>Deviation < - 10%</td></tr><tr><td>Low Risk, High Rate</td><td>Deviation < -+10%</td></tr></table> Stage 1: Returnable schedule Stage 2: Functionality Stage 3: Calculation of specified Goals (Race, gender, Youth and Disability).
F.1.14 ACCEPTANCE OF BID OFFER	Bids containing any one or more of the errors or omissions, or bids not having complied with any one of the required bid conditions shall not be considered and shall automatically be rejected. Administrative and arithmetic errors will be dealt with as documented in F.2.11 and F.3.9
F.1.15 PROVIDE COPIES OF THE CONTRACTS	The number of paper copies of the signed contract to be provided by Tswelopele Municipality is **one.**
ADDITIONAL CONDITIONS APPLICABLE TO THIS BID	The additional conditions of bid are: 1 The Employer may also request that the bidder provide written evidence on the adequacy of financial, labour and other resources for carrying out the contract. 2 *The Municipal shall confirm validity of all functionality documents attached with relevant person indicated, we may require Previous Purchase Orders or previous payments from the reference contact person indicated in the returnable claiming functionality points. It will take 3 attempts for the Municipality to do so if the committee fails to confirm the validity of the returnable from the reference contact person such returnable will not be awarded a point.* 3 The Employer reserves the right to appoint a firm of chartered accountants and auditors and/or execute any other financial investigations on the financial resources of any bidder. The bidder shall provide all reasonable assistance in such investigations. 4 The bidder shall be required to complete the Form of Offer and Acceptance (C1.1) and Bills of Quantity for all the regions as specified in the tender document. 5 The bid document shall be submitted as a whole and **not** in parts. 6 **List of returnable documents (PART T2) must be completed in full.** (i.e.: A bidder's company profile **will not** be used by the TLM to complete PART T2 on behalf of the bidder) **NB: If PART T2 is not completed in full by the bidder, the offer will be rejected.**

GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the “General Conditions of Contract for Construction Works –3rd Edition 2015, Third print", issued by the South African Institution of Civil Engineering. (Short title:“General Conditions of Contract 2015").

It is agreed that the only variations from the General Conditions of Contract 2015 are those set out hereafter under "Contract Specific Conditions".

CONTRACT SPECIFIC CONDITIONS

1. GENERAL

These Contract Specific Conditions (CSC) form an integral part of the Contract. The Contract Specific Conditions shall amplify, modify or supersede, as the case may be, the General Conditions of Contract 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions hereafter are numbered "CSC" followed in each case by the number of the applicable clause or sub-clause in the General Conditions of Contract 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the General Conditions, and an appropriate heading.

2. AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT

CSC 1.1.2 DEFINITIONS, INTERPRETATIONS AND GENERAL PROVISIONS

Add the following definitions:

“**Labour-based Construction”** means the effective employment of appropriate technologies and labour-intensive construction methods on projects specifically designed to maximize the workforce with limited use of machines.

“Community” shall mean all persons deemed to reside in the immediate vicinity of the project.

CSC1.10 *Add the following Sub-Clause 1.10:*

Training will be provided by the employer through various training providers. Training will be theoretical and practical and will be conducted in class rooms and on site. No separate payment of any nature will be made to the contractor for attendance of training sessions by the contractor or the contractor’s staff. The Construction Project Manager will program and manage all training to ensure limited disruption to the contractors and the overall project.

CSC 4.3 Compliance with applicable laws

CSC 3.2.4 Health and Safety

Add the following:

"The Occupational Health and Safety Act No. 85 and Amendment Act No 181 of 1993 and the Construction Regulations 2014 will in all respects be applicable to this contract."

CSC 4.4 Payment to subcontractor

Add the following:

"The above-mentioned procedure shall adhere to the **Preferential procurement regulations, 2011, pertaining to the Preferential Procurement Policy Framework Act, Act No. 5 of 2000, published by National Treasury on 1 December 2011** and to any prescribed regulations of the FREESTATE Provincial Government pertaining to procurement.

CSC 5.7 PROGRESS OF THE WORKS

Add the following to Sub-Clause 5.7 :

Delete the last sentence and add the following:

The contractor shall within 3 days of receipt of notification submit to the Engineer in writing the action(s) the contractor intends to take to expedite the rate of progress, and within 7 days of receipt of notification implement such steps. The contractor shall as part of his actions submit to the Engineer a detailed revised program accommodating the agreed steps to meet the Due Completion date.

The Employer will conduct a review on the performance of Contractor, the review will be conducted upon the contractor reaching 25%,50%,75% and 100% in terms of work done. The Contractor will receive the scorecard assessing his performance throughout the duration of the contract.

CSC 6.4 VARIATIONS

Add the following to the end of the clause:

"If the Employer's Agent requests prices or rates for extra or additional work, the Contractor shall supply the prices or rates for the work within fourteen (14) days of the request. If the Employer's Agent considers the prices or rates unreasonable, he/she shall request the Contractor to revise these prices or rates immediately if not agreement is reached the Employers Agent shall determine the appropriate rate or have the right to appoint another contractor to carry out the works. Delays that arise as a result of the Contractor's failure to supply reasonable rates within the fourteen (14) days period shall be the responsibility of the Contractor.

The prices or rates shall be accompanied by a fully detailed, complete break-down indicating mark- ups throughout and copies of suppliers/sub-contractors quotations shall be attached.

On completion of the extra or additional work, and when the Contractor has made payment to his/her suppliers/sub-contractors, the Contractor shall supply the Employer's Agent with copies of all his/her suppliers/sub-contractors, invoices and receipts."

CSC 6.8.2: CONTRACT PRICE ADJUSTMENT SCHEDULE

Paragraph 1

Adjust the definitions of "L", "P", "M" and "F" in the 4th to the 7th subparagraphs with the following:

Definition of "L":

Insert "(Consumer Price Index)" *after* "P0141.1" *in the third line*

Insert "(Consumer Price Index and Percentage Change according to Urban Area)" *after* "Table 21"in *the third line*

Definition of “P”:

Insert “(Production Price Index)” *after* “P0142.1” *in the second line*

Insert “(Production Price Index for Selected Materials, item ‘Civil Engineering Plant’)” *after* “Table 16“in *the second line*

Definition of “M”:

Insert “(Production Price Index)” *after* “P0142.1” *in the second line*

Insert “(Production Price Index for Materials used in Certain Industries, item ‘Civil Engineering Plant’)” *after* “Table 15“in *the second line*

Definition of “F”: *Insert “*(Production Price Index)” *after* “P0142.1” *in the second line*

Insert “(Production Price Index for Selected Materials, item Diesel Oil – Coast and Witwatersrand)” *after* “Table 16“in *the second line*

[Note: The indices are obtainable in www.statssa.gov.za. *The latest indices for L (certain urban areas only), P, M and F, are more readily obtainable in* www.safcec.org.za *under "CPAF Indices"]*

Paragraph 2 : Assessment of Amount subject to Adjustment: *Add the following to the paragraph defining "E":*

"Where the amount is based on current costs de-escalated to the base month, or where daywork is calculated at rates tendered in a daywork schedule, the costs shall not be included in the value of "E".

CSC 6.10.4 RIGHT TO WITHHOLD PAYMENT CERTICATE

Add the following to the last sentence of Clause 6.10.4:

“…, dated as at the date of delivery of the Contractor’s statement to the Employer’s Agent.”

Add the following to Clause 6.10.4:

“Notwithstanding the above, the Employer’s Agent shall be empowered to withhold the delivery of the payment certificate until the Contractor has complied with his obligations to report in terms of Clause

4.10.2 and has submitted any other documentation that may be requested by the Employers Agent, and as described in the Scope of Work.”

CSC 7.5.1 QUALITY MATTERS

Add the following to Clause 7.5.1:

“The Contractor shall give notice to the Employer’s Agent at least 72 hours’ notice for the inspection of the works.”

C1.2.2 CONTRACT SPECIFIC DATA

This Contract will be based on the “General Conditions of Contract for Construction Works 3RD Edition 2015", issued by the South African Institution of Civil Engineering. (Short title: “General Conditions of Contract 2015").

The above-mentioned General Conditions of Contract for Construction may be inspected at the offices of the Employer or the offices of the Employer’s Agent. Tenderers shall obtain their own copies from the South African Institute of Civil Engineering

It is agreed that the only variations from the General Conditions of Contract 2015 are those set out hereafter under "Special Conditions of Contract".

PART 1: DATA PROVIDED BY THE EMPLOYER

Ref. Clause	Data provided by the Employer
1.1.1.13	The defect liability is **12 months**, a time measured from the date of the certificate of Completion
1.1.1.15	The Employer is Twelopele Local Municipality
1.1.1.16	The Engineer is the firm Phecron Engineering Group (pty) Ltd.
1.2.1	The Employer’s address for receipt of communications is: Telephone: +27 51 853 1111 E-mail: malokase.pmu@tswelopele.org Address (Physical): 3 Bosman Street, Bultfontein,9670 The Engineer’s address for receipt of communications is: Telephone: +27 76 726 4112 E-mail: bids@phecron.co.za Address (Physical) 24 Pretorius Street, Welkom,9459
1.3.2	The governing law is the law of South Africa.
3.2.3	The Engineer is required to obtain the specific approval of the Employer for Any expenditure in excess of the Tender Sum plus 10% contingencies..
3.2.5	Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Employer’s Agent (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.
4.3.3	The Employer and the Contractor shall enter into an agreement to complete the work required for the construction of the Works in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 promulgated thereunder. Inter alia, the Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall always be available for

	inspection on Site and handed over to the Employer on Final Completion of the project An agreement is included in the Contract Document (Part C1.4 in Agreements and Contract Data) and shall be completed and submitted to the Employer together with a letter of good standing from the Compensation Commissioner (if not insured with a licenced compensation insurer) within fourteen (14) days after the Commencement insure Date. The Contractor shall ensure that any letter of good standing shall be timeously renewed in order that it remains in full force for the duration of the Contract.
5.3.1	The documentation required before commencement with Works execution are: • Health and Safety Plan (Refer to Clause 4.3) • Initial programme (Refer to Clause 5.6)(In PDF,MS project 2019) • Security/Perfomance guarantee (Guarantor must have valid FSP number)(Refer to Clause 6.2) • All-risk Insurance (Insurer must have valid FSP number) (Refer to Clause 8.6) • Personnel Curriculum Vitae • Construction Methodology • Quality Management plan •
5.3.2	The time to submit the documentation required before commencement with Works execution is **14** days.
5.4.2	Access to and possession of the Site shall not be exclusive to the Contractor insofar as the provisions of Clause 4.8 apply, and where ongoing use by the general public is required.
5.8.1	All days shall be regarded as working days exluding stated special non-working days The non-working days are Sundays. The special non-working days are: a) All gazetted public holidays falling outside the year end break. b) The year-end breaks (all dates inclusive to the yearend breaks) commencing on or around 16 December and ending on or around 7 January.
5.12.2.2	No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working days listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of Clause 5.12. During the execution of the Works, the Employer's Agent's Representative will certify a day lost due to rainfall only if at least 75% of the work force and plant on site could not work during that specific working day due to wet site conditions

	The number of days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work. • January 13 days • February 10 days • March 9 days • April 5 days • May 2 days • June 1 days • July 1 days • August 1 days • September 3 days • October 8 days • November 12 days • December 15 days Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced. Extension of time as a result of rainfall shall be calculated monthly being equal to the number days certified by the Employer's Agent's Representative as lost due to rainfall, less the number of days allowed for above, which could result in a negative figure for certain months. The total extension of time for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time shall be taken as NIL. It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.
5.13.1	The penalty for failing to complete the Works is **R 7 467,22** Monetary value per day.
5.14.1	The requirements for achieving Practical Completion will be determined by the Employer's Agent in consultation with the Contractor and Employer, but will as a minimum entail the following: • Full access to the completed works by the Employer.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is **80%** percentage.
6.10.3	The limit of retention money is **10%**
8.6.1.1.2	All insurances are to be effected by the Contractor. All insurances are to be effected by the Contractor The value of the materials supplied by the Employer to be included in the insurance sum is: Nil.
8.6.1.1.3	The amount to cover the professional fees for repairing damage and loss to be included in the insurance sum is 20% of Contract sum.
8.6.1.3	The amount for the Coupon policy for special risks is The Contract Value
8.6.1.3	The limit of indemnity for liability insurance is R10 million.
6.8.2	Contract price adjustment is *NOT* applicable to this Contract.

6.8	Price adjustments for variations in the costs of special materials is Not applicable

……..

SIGNATURE

F.1 General

F.1.1 Actions

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

a) Comparative offer means the tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered 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 tender process; and

c) Fraudulent practice means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels.

F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be 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 tenderer. The name and contact details of the employer's agent are stated in the tender data.

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

F.1.5.1 The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur

any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.2 Tenderer's obligations

F.2.1 Eligibility
Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his/ her principals, is not under any restriction to do business with the employer.

F.2.2 Cost of tendering
Accept that the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer to satisfy requirements.

It is a term of this bid that the employer is indemnified from any liability arising or accruing from expenses or damages or losses incurred by the bidder including in the event the employer opts to cancel or discontinue the bidding process of this tender.

F.2.3 Check documents
Check the tender 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 tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents
Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda
Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 Clarification meeting
Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions.
Details of the meeting are stated in the tender data.

F.2.8 Seek clarification
Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing date stated in the tender data.

F.2.9 Insurance
Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is required to seek adequate cover for covering liability that may ensue during the contract term.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes, Value Added Tax (VAT), and other levies payable to the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

F.2.10.2 Provide rates and prices that are fixed for the duration of the contract inclusive of applicable projected escalation as provided for in the conditions of contract identified in the contract data and not subject to any further adjustment; payable on a monthly basis.

F.2.10.3 State the rates and prices in South African Rand only.

F.2.10.4 The **municipality has limited resources and bids must be competitive, with market related pricing, as this will be one of the deciding factors in the final award of the contract**

F.2.11 Alterations to documents

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

F.2.12 Alternative tender offers

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

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

F.2.13 Submitting a tender offer

F.2.13.1 Submit a tender 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 tender data.
F.2.13.2 Return all returnable documents to the employer after completing them in their entirety.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English.

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

F.2.13.5 Seal the original package marking the package as “ORIGINAL”

F.2.13.6 Seal the original tender offer package in an outer package that states on the outside only the employer‘s address and identification details as stated in the tender data.

F.2.13.7 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

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

Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, will be regarded by the employer as non-responsive.

F.2.15 Closing Time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept tender offers submitted by telegraph, facsimile or e-mail.

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

F.2.16 Tender Offer Validity

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

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

F.2.16.3 The tender offer validity will be valid for 90 days.

It would be expected of the successful Service Provider to assume duty upon appointment on the date to be determined by the municipality.

F.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (Or both).

No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

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

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 tender offer, the tenderer's commercial position (including notarized joint venture agreements), referencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.19 Inspections, tests and analysis

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

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 tender documents

If so, instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to clarification

Respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until seven (7) days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

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

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

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

F.3.5 Two-envelope system

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

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

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

a. Complies with the requirements of these Conditions of Tender,

b. Has been properly and fully completed and signed, and

c. Is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

a. Detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,

b. Change the Employer's or the tenderer's risks and responsibilities under the contract,

c. Affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

F.3.9 Arithmetical errors

F.3.9.1 Check responsive tender offers for arithmetical errors, correcting them in the following manner:

a. Where there is a discrepancy between the amounts in figures and in words, the amount in figures shall govern.

b. If bills of quantities (or schedule of quantities or schedule of rates) apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the rate shall govern and the total shall be corrected.

c. Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the rate shall govern and the tenderer will be asked to revise selected item prices to achieve the tendered total of the prices.

F.3.9.2 Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his/ her arithmetical errors in the manner described in F.3.9.1.

F.3.10 Clarification of a tender offer

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

F.3.11 EVALUATION METHODOLOGY

a. In addition to all items highlighted under Page 2 titled **"Very Important Notice on Disqualifications",** the tenders will be evaluated in terms of the Municipality Supply Chain Management policy, Preferential Procurement Framework Act (Act 5 of 2000) and its regulations as enacted in 2001.
b. Tenders will be evaluated using the 80/20 points allocation system. The total points out of a possible maximum of 100 will be calculated using various formulae to calculate price as well as for preferential procurement.

F.3.13 Acceptance of tender offer

F.3.13.1 Accept tender offer only if the tenderer complies with the legal requirements stated in the Tender Data.

F.3.13.2 Notify the successful tenderer of the employer's acceptance of his/her tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful tenderer as described in the form of offer and acceptance.

F.3.14 Notice to unsuccessful tenderers

After the successful tenderer has acknowledged the employer's notice of acceptance, the employer will publicise a list of successful bidders on the municipal website

F.3.14 **Municipality's right to accept or reject any or all Bids**

The municipality reserves the right to:

- Accept or reject any bid;
- Annul the tender process and reject all bids at any time prior to contract award;
- Award the contract to one or more bidders; without thereby incurring any liability to the affected Bidder or bidders.
- Accept one or more bids submissions.
- Reject all bids submitted.
- Request further information from any bidder after the closing date.
- Cancel this bid or any part thereof any time, or
- Award this bid or any part thereof to any one or more bidders.
- Vary the site or number of sites and/or guards due to operational or budgetary requirements.

F.3.15. Prepare contract documents

Revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- **addenda issued during the tender period,**
- **inclusion of the returnable documents,**
- **other revisions agreed between the employer and the successful tenderer, and**
- **the schedule of deviations attached to the form of offer and acceptance, if any.**

F.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful tenderer for acceptance within fourteen (14) days after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of tender require the tenderer to submit, after acceptance by the employer, shall be included.

F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

3. **List of attachments required for Evaluation Purposes**

a. Proof of registration on Central Supplier Database [Last verified between the **date of advert** and the **closing date**] detailing all compliance requirements of the Bidder;

b. SARS Pin to be attached – the Municipality will be verifying the tax status of the bidder on evaluation before the award.

c. Evidence (municipal account statement) that the municipal rates and taxes or municipal charges owed by the bidder or any of its directors to the municipality or municipal entity, or to any other municipality or municipal entity, are not in arrears for more than three months, in terms of lease agreement, proof that Municipal charges owed on the premises are not in arrears for more than 90 days must be attached, lease agreement alone will not be accepted,

d. CIDB Grading – 7 CE or higher class of construction work.

e. Attach latest complete set of Audited Financial Statements (AFS) , independently prepared and signed off by a registered Auditor or Accounting officer in good standing with a recognised professional regulatory body (e.g. IRBA, SAICA, or CIPA / relevant statutory professional board)

f. Prospective bidder must comply with any related legislation.

g. Submit the above documents (a to e) for each company if bidding as a joint venture

h. Joint venture, consortium agreements (if applicable).

Note: Failure to attach the above documents will lead to automatic disqualification from further evaluation

REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN TIKWANA (HOOPSTAD)

3. EVALUATION METHODOLOGY

Stages of Evaluation

- Guidelines for Evaluation using the Points method

a. Score sheets will be prepared and provided to evaluation committee members to evaluate the bids.
b. The score sheet should contain all the criteria for points as well as the values to be applied for evaluation as indicated in the bid documents.
c. Each evaluation Committee member should after thorough evaluation independently award his / her own value to each individual points.
d. Score sheets should be signed by evaluation committee members and if necessary, written motivation may be requested from evaluation committee members where vast discrepancies in the values awarded for each point exist.
e. If the minimum qualifying score for functionality is indicated as points in the bid documents, the points scored for functionality may be calculated as follows:
i. The scores for each point should be added to obtain the total score; and
ii. The following formula should be used for the total score for functionality:

Ps = Points

Stage 1: Evaluation on functionality

Under functionality, Bidders must achieve a minimum of 60 Points of the total points (rounded to the nearest decimal point) for functionality (quality of service) in order to be considered for further evaluation in stage 2 (Evaluation on Price and Specified Goals).

	Max Points	Points Distribution	Typical PoE	Bidder score
Bidders Work Experience	40	**Categories** Projects above R20 million, full points as stated below (depending on number of projects completed). **40 points** – company with 5 – 6 of civil construction projects completed in similar assignments / projects. **30 points** – company with 3 - 4 or more of civil construction projects completed in similar assignments / projects. **10 points** – company with 1 - 2 of civil construction projects completed in similar assignments / projects. **0 points** – company with no relevant project completed.	Provide each project: 1. Appointment Letter or Purchase Order and Reference Letters or signed completion certificate. - The relevant municipal officials will verify the projects to top two bidders by site visits and/or getting confirmation emails from your Clients. If you were sub-contracting, a letter from the main contractor and the client (funding the project) must be submitted.	
Project Personnel	30	Allocated personnel to this project **Contract's Manager** **B.Tech/BSC in Civil Engineering registered with ECSA and SACPCMP (10 points)** 10 points: relevant experience of 10 years or more 5 points: relevant experience of 6 – 9 years 3 points: relevant experience of less than 5 years AND **Site Agent with ND or Higher in Civil Engineering and registered with ECSA**: 10 points: relevant experience of 10 years or more 5 points: relevant experience of 6 – 9 years 3 points: relevant experience of less than 5 years AND **Health and Safety Officer**: Relevant qualification and must be registered with SACPCMP 10 points: experience 5 years or more 5 points: experience of 2 – 4.9 years 2 points: experience of less than 2 years	Provide for each: 1. CV/Resume 2. Certified qualifications	
Financial Capacity	10	Credit rating / bank code of A to E (equivalent to tendered amount not older than 3 months from the closing date) Bank rating A – B = 10 Bank rating C = 8 Bank rating D = 6 Bank rating E = 4 Bank rating F = 0	Bank rating letter	
Reliability and operational capacity	20	Only a letter of intent (LoI) from the supplier and proof of ownership for vehicles will be accepted. 5 points: Letter of intent for the supply of material 15 points: Proof of ownership for 1x Bakkie, 2x TLB, 1x Excavator, 2x Tipper trucks OR Letter of intent for leasing the above NB: Excavator = 5 points Bakkie= 2 point TLB= 2 points x 2 = 4 points Tipper truck= 2 Points x 2= 4 points NB: If the vehicles will be leased, attach letter of Intent to Lease accompanied by an Undertaking by the prospective Lessor with registration certificates.	Signed letter of intent with company letterhead Proof of vehicle registration from the (Only e-NaTIS will serve as a proof of vehicle ownership) **No License disc will be accepted**	
Total Points	**100**	**Minimum point to attain**	**60 points**	

Initial here: _____

Failure to submit all valid/credible documents will result in the bidder not being further evaluated.

Following functionality criteria will be applied:

Stage 2: Evaluation on Price and specified Goals 80/20

2.1 Financial offer and evaluation on price points

- Score Bid evaluation points for financial offer.
- Confirm that Bidders are eligible for the Specific Goals claimed, and if so, score Bid evaluation points for specific Goals.
- Calculate total Bid evaluation points (Price points plus specified goals points)
- Rank Bid offers from the highest number of Bid evaluation points to the lowest.
- The bidder obtaining the highest number of total points will be awarded the contract.
- Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;
- Points scored must be rounded off to the nearest 2 decimal places.
- In the event that two or more bids have scored equal total points, the successful bids must be the one scoring the highest number of preference points for Specific goals Points
- However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for specific Goals, the successful bid must be the one scoring the highest score for functionality.
- Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

2.2 Price formula

$$Np = \frac{80[1 - (Pt - Pmin)]}{Pmin}$$

- Where: Np = the number of bid/tender adjudication points awarded for price.
- Pt = the bid/tender sum (corrected if applicable) of the responsive bid under consideration.
- Pmin = the bid/tender sum (corrected if applicable) of the lowest responsive tender/bid.

2.3 Scoring for Specific Goals

Bids will be evaluated in accordance with the prescripts of the Preferential Procurement Policy Framework Act (PPPFA) and the associated Preferential Procurement Regulations of 2022, which stipulate a 80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million.

Points for the specific goals for contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race:

Black-owned	Number of points on 80/20 points system	Number of points on 90/10 points system	Required Proof
51-100%Black-owned enterprise	8	3	CSD Report and ID Copy
41-50% Black-owned enterprise	6	2	CSD Report and ID Copy
31-40%Black-owned enterprise	4	1	CSD Report and ID Copy
21-30% Black-owned enterprise	2	0	CSD Report and ID Copy
0-20% Black-owned enterprise	1	0	CSD Report and ID Copy

Points for the specific goals for contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of gender:

Women-owned	Number of points on 80/20 points system	Number of points on 90/10 points system	Required Proof
51-100% Women-owned enterprise	4	3	CSD Report and ID Copy
31-50% Women-owned enterprise	3	1	CSD Report and ID Copy
11-30% Women-owned enterprise	2	1	CSD Report and ID Copy
1-10% Women-owned enterprise	1	1	CSD Report and ID Copy

Initial here: _____

Points for the specific goals for contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of disability:

Disability-owned	Number of points on 80/20 points system	Number of points on 90/10 points system	Required Proof
51-100% Disabled-owned enterprise	4	2	ID Copy, CSD Report and medical certificate
31-50% Disabled-owned enterprise	3	1	ID Copy, CSD Report and medical certificate
11-30% Disabled-owned enterprise	2	1	ID Copy, CSD Report and medical certificate
1-10% Disabled-owned enterprise	1	0	ID Copy, CSD Report and medical certificate

Points for the specific goals for contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of youth:

Youth-owned	Number of points on 80/20 points system	Number of points on 90/10 points system	Required Proof
51-100% Youth-owned enterprise	4	2	CSD Report and ID Copy
31-50% Youth-owned enterprise	3	1	CSD Report and ID Copy
11-30% Youth-owned enterprise	2	1	CSD Report and ID Copy
1-10% Youth-owned enterprise	0	0	CSD Report and ID Copy

PART T2 LIST OF RETURNABLE DOCUMENTS

The bidder must complete the following returnable documents.

T2.1 RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION PURPOSES .....

T2.2 OTHER DOCUMENTS REQUIRED FOR BID EVALUATION PURPOSES .....

T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN THE CONTRACT.....

T2.4 OTHER DOCUMENTS THAT WILL BE INCLUDED IN THE CONTRACT .....

NOTE:

Although the documents under Part T2 is headed “Returnable Documents” in line with the CIDB model, these are not the only documents to be returned together with the bid. **All** the documents indicated on Part T1 must be completed and signed where applicable and submitted as a **complete set of documents**.

T2.1 RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION PURPOSES

CONTENTS

FORM 2.1.1: SCHEDULE OF EQUIPMENTS REQUIRED FOR THE CONTRACT

FORM 2.1.2: SIZE OF ENTERPRISE AND CURRENT WORKLOAD

FORM 2.1.3: PROPOSED KEY PERSONNEL

FORM 2.1.4: SCHEDULE OF PREVIOUS WORK CARRIED OUT BY BIDDER

FORM 2.1.5: AUTHORITY FOR SIGNATORY

FORM 2.1.6: SCHEDULE OF PROPOSED SUB-CONTRACTORS

FORM 2.1.7: FINANCIAL REFERENCES

FORM 2.1.8 DETAILS OF ALTERNATIVE BIDS SUBMITTED

FORM 2.1.9 AMENDMENTS & QUALIFICATIONS BY BIDDER

FORM 2.1 SCHEDULE OF EQUIPMENTS REQUIRED FOR THE CONTRACT

FORM 2.1.1 SIZE OF ENTERPRISE AND CURRENT WORKLOAD

[please attach Annual report for the Previous financial year]

a) Total Turnover in the previous financial year? R_____

b) Estimated turnover for current financial year? R_____

Physical facilities: Provide information on Company offices/Premises

Description	Address	Area (m^2)

List current contracts and obligations [maximum]:

Description	Location	Value (R)	Start date	Expected completion date

FORM 2.1.2 PROPOSED KEY PERSONNEL

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

DESIGNATION	INITIALS & SURNAME	HIGHEST QUALIFICATION	EXPERIENCE [NO OF YEARS]
HEADQUARTERS **Partner/director**			
Project Manager (s)			

FORM 2.1.3 SCHEDULE OF PREVIOUS WORK CARRIED OUT BY BIDDER

Provide the following information on **relevant previous experience [Security sector].** Indicate comparable projects of similar or larger size. This information is material to the award of the Contract.

Give names and telephone numbers and e-mail address per reference. Please provide latest contact details.

CLIENT NAME AND PLACE WHERE PROJECT WASIMPLEMENTED	TEL NO, FAX NO, EMAIL	DESCRIPTION OF WORK	CONTRACT VALUE (R)	CONTRACT PERIOD
	_____ _____ _____			
	_____ _____ _____			

	_____ _____ _____			
	_____ _____ _____			
	_____ _____ _____			

FORM 2.1.4 AUTHORITY FOR SIGNATORY

All signatories**, including sole proprietors**, shall confirm their authority by **attaching to this bid** a duly signed and **dated original or certified copy** of the relevant resolution of their members or their board of directors, as the case may be.

FORM 2.1.5 SCHEDULE OF PROPOSED SUB-CONTRACTORS (PLEASE WRITE N/A IF NO SUBCONTRACTOR WILL BE USED)

Provide details on all sub-contractors you intend utilising for this contract

Type of work to be used for	a % of contract	Name of subcontractor	b % HDI ownership	c = a x b Total contribution to HDI ownership
Total % of contract subcontracted		Total contribution of HDI ownership:		

FORM 2.1.6 FINANCIAL REFERENCES

FINANCIAL STATEMENTS (delete which is not applicable)

I/We _____ (name of authorized representative

Confirm that we have attached a three (3) year audited copy of financial statements together with my/our Directors' and Auditors' report.

DETAILS OF BIDDING ENTITY'S BANK

If the bidder is a Joint Venture or partnership, the information requested below is required for each member / partner.

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

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO BIDDER
Name of bank	
Contact person	
Branch name & code	
Street address	
Bank Telephone number	( )
Account number	
Type of account, (i.e. cheque account)	

Attach Bank letter with Company Bank Rating

FORM 2.1.7 DETAILS OF ALTERNATIVE BIDS SUBMITTED

See condition of bid.

DESCRIPTION

FORM 2.1.8 AMENDMENTS AND QUALIFICATIONS BY BIDDER

See condition of bid
Attach additional information on a separate sheets and initial all of them

PAGE	DESCRIPTION

Initial here: _____

T2.2 OTHER DOCUMENTS REQUIRED FOR BID EVALUATION PURPOSES

CONTENTS

FORM 2.2.1 DECLARATION

FORM 2.2.2 DECLARATION OF INTEREST

FORM 2.2.3 CERTIFICATION

FORM 2.2.4 MBD 9

FORM 2.2.1 DECLARATION:

I/ We, the undersigned:

(a) Bid to provide to Replacement of old asbestos pipeline and accompanying appurtenances in TIKWANA (HOOPSTAD)at all municipal premises/facilities described both in this and the other Schedules to this Contract to which I shall annex my signature;
(b) Agree that we will be bound by the specifications, prices, terms and conditions stipulated in those Schedules attached to this bid document, regarding execution of duties;
(c) Further agree to be bound by those conditions, set out in, “PARTS T1; T2; C1; C2; and C3”, attached hereto, should this bid be accepted;
(d) Confirm that this bid may only be accepted by Tswelopele Local Municipality by way of a duly authorised Letter of Acceptance within fourteen (14) days from the date of appointment;
(e) Declare that we are fully acquainted with the Bid document and Schedules and the contents thereof and that we have signed the Bill of Quantities and completed the Returnable Schedules and declarations, attached hereto;
(f) Declare that all amendments to the bid document have been initialled by the relevant authorised person and that the document constitutes a proper contract between TLM and the undersigned;
(g) Certify that the item/s mentioned in the bid document, qualifies/qualify for the preference(s) shown.
(h) Acknowledge that the information furnished is true and correct;
(i) Accept that in the event of the contract being awarded as a result of preference claimed in this bid document, I may be required to furnish documentary proof to the satisfaction of TLM that the claims are correct. If the claims are found to be inflated, TLM may in addition to any other remedy it may have, recover from the company or me all costs, losses or damages incurred or sustained by TLM as a result of the award of the contract and/or cancel the contract and claim any damages which TLM may suffer by having to make less favourable arrangements after such cancellation;

(j) Declare that no municipal rates and taxes or municipal service charges owed by the bidder or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three (3) months; and

(k) Declare that I have not failed to perform satisfactorily during the last five (5) years on a previous contract with the Municipality, Municipal entity or any other organ of state, after written notice was given to me that my performance was not satisfactory.

Signed at_____ on this_____ day of_____20_____

Authorised Signature: _____

Name of Bidding Entity:_____

Date: _____

Sign as witness: _____

FORM 2.2.2 DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state including in instances of non-directors of the entity and also those who may be sub-contracting.
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 with honesty and submitted with the bid.

Full Name: _____

Identity Number: _____

Tax Number: _____

VAT Number: _____

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

If yes, furnish particulars _____

3.2 Have you been in the service of the state for the past twelve (12) months? **YES /NO**

If yes, furnish particulars _____

_____

3.3 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**

If yes, furnish particulars _____

 SCM 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.

_____

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

If yes, furnish particulars _____

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

If yes, furnish particulars _____

FORM 2.2.3 CERTIFICATION

I, THE UNDERSIGNED (NAME) _____
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT. THAT ANY MISREPRESENTATION OF INFORMATION MAY LEAD TO IMMEDIATE CANCELLATION OF THE AGREEMENT.

Initial here: _____

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

SHOULD THE INFORMATION REQUIRED ON THIS FORM NOT DULY BE SUPPLIED, THIS BID WILL BE AUTOMATICALLY REJECTED.

_____ _____

Signature Date

_____

_____

Company Name Position

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:

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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:

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

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 forward the matter for criminal prosecution, if deemed necessary.

SIGNATURE(S) OF TENDERER(S): .....

SURNAME AND NAME: .....

DATE: .....

ADDRESS: .....

.....

.....

MBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1 This Standard Bidding Document must form part of all bids invited.

2 It serves as a declaration to be used by institutions 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 disregarded if that bidder, or any of its directors have-

a. abused the institution's supply chain management system;
b. committed fraud or any other improper conduct in relation to such system; or
c. failed to perform on any previous contract.

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 *audi alteram partem* 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:		
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 outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
4.4.1	If so, furnish particulars:		

MBD 8

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ……
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

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

……... **Signature**

…….. **Date**

…… **Position**

…….. **Name of Bidder**

FORM 2.2.4 CERTIFICATE OF INDEPENDENT BID DETERMINATION

a) This Municipal Bidding Document (MBD) must form part of all bids[1] invited.
b) 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.
c) Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:

i. Disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
ii. Cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.

d) 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.

e) 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.

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

_____

(Bid Number and Description)

in response to the invitation for the bid made by: TSWELOPELE LOCAL MUNICIPALITY

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

I certify, on behalf of

_____

(Name of Bidder)

that:

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:

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

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding: a) prices;
   b) geographical area where product or service will be rendered (market allocation)
   c) methods, factors or formulas used to calculate prices;
   d) the intention or decision to submit or not to submit, a bid;
   e) the submission of a bid which does not meet the specifications and conditions of the bid; or bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

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

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

_____ _____

Signature **Date**

_____

_____ **Company Name**

Position

T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN THE CONTRACT

FORM 2.3.1 RECORD OF ADDENDA TO BID DOCUMENTS

We confirm that the following communications received from the Procuring Department 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		

Attach additional pages if more space is required.

Signature of Authorized person: _____ Date:_____

Name of authorized person:_____ Position: _____

PART C3 AGREEMENT AND CONTRACT DATA [WHITE]

C3.1 FORM OF OFFER AND ACCEPTANCE

C3.2 AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

C3.3 CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

C3.1 FORM OF OFFER AND ACCEPTANCE [THIS SECTION MUST BE COMPLETED AFTER APPOINTMENT]

FORM OF OFFER AND ACCEPTANCE (AGREEMENT)

1. OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works Replacement of old asbestos pipeline and accompanying appurtenances in Tikwana (Hoopstad).

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

By the representative of the Bidder, deemed to be duly authorised, 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 FOR DURATION OF THE CONTRACT.

_____

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.

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.

FOR THE BIDDER:

Signature(s) _____ Name(s) _____

Capacity_____ Company Name_____

Name of Witness _____

Signature _____

Date: _____

4. 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 Pricing Data

Part C2 Scope of Work

Part C3 Agreements and Contract Data, (which includes this Agreement)

AND Documents or parts thereof, which may be incorporated by reference into Parts C1 to C3 above.

Deviations from and amendments to the documents listed in the Bid Data and any addenda thereto 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, which must be duly signed by the authorised representative(s) of both parties.

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 fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the 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.

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.

FOR THE EMPLOYER: TSWELOPELE LOCAL MUNICIPALITY

Signature(s)_____Name _____

Capacity_____ Name of Witness _____

Signature _____

Date _____

2. SCHEDULE OF DEVIATIONS

Notes:

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

1 Subject_____

Details _____

2 Subject _____

Details _____

3 Subject _____

Details _____

4 Subject _____

Details _____

By the duly authorised representatives signing this Schedule of Deviations, 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 change 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.

FOR THE BIDDER:

Signature(s) _____

Name(s) _____

Capacity _____

(Bidder's Name) _____

Name of Witness _____

Signature _____

Date: _____

FOR THE EMPLOYER: TSWELOPELE LOCAL MUNICIPALITY

Signature(s) _____

Name _____

Capacity _____

Name of Witness _____

Signature _____

Date _____

C3.2 AGREEMENT IN TERMS OF THE OCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

THIS AGREEMENT made at _____

On this the _____ day of _____20_____

Between **TSWELOPELELOCAL MUNICIPALITY** (hereinafter called "the

Employer") herein represented by _____

In his/her capacity as_____

And

_____

(Hereinafter called "the Mandatory") of the other part, herein represented by

_____

In his/her capacity as _____

WHEREAS the Employer is desirous that certain works be undertaken as per this contract:

_____

and has accepted a Bid by the Mandatory for the provision of such services and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1 The Mandatory shall execute the work in accordance with the Contract Documents pertaining to this Contract.

2 This Agreement shall hold good from its Commencement Date, which shall be the date of a written notice from the Employer or Employer's representative requiring him to commence the execution of the Works, to either

(a) the date of the Final Approval Certificate issued

(b) the date of termination of the Contract

3 The Mandatory declares himself/herself to be conversant with the following:

(a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:

(i) Section 8 : General duties of employers to their employees;
(ii) Section 9 : General duties of employers and self-employed persons to persons other than employees;
(iii) Section 37 : Acts or omissions by employees or mandataries, and
(iv) Subsection 37(2) relating to the purpose and meaning of this Agreement.
(b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.

3 The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.

4 The Mandatory warrants that all his/her and his/her subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.

5 The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
   (a) The Mandatory shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
   (b) All incidents referred to in the Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
   (c) The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of section 32 of the Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

6 In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE EMPLOYER:

SIGNATURE _____ DATE _____

DESIGNATION _____ DATE _____

SIGNED FOR AND ON BEHALF OF THE MANDATORY:

SIGNATURE _____ DATE _____

DESIGNATION _____ DATE _____

C3.3 CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

The signatory for the company that is the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his or her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the Board of Directors.

An example is given below:

"By resolution of the Board of Directors passed at a meeting held on

_____ 20_____,

Mr/Ms

_____

whose signature

Appears below, has been duly authorised to sign the AGREEMENT in terms of THE

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 of 1993) on behalf of

_____

SIGNED ON BEHALF OF THE COMPANY:_____

IN HIS/HER CAPACITY AS: _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

WITNESS SIGNATURE _____

NAME _____

(IN CAPITALS)

N.B. MAKE SURE YOU INDEX ALL THE ATTACHMENTS FOR EASE OF IDENTIFICATION

….THE END…..

TSWELOPELE
LOCAL MUNICIPALITY
A MUNICIPALITY IN PROGRESS

PART C1 PRICING DATA

C1.1 PRICING INSTRUCTIONS

C1.2 SCOPE OF WORKS AND PROJECT LOCATION

C1.3 BILL OF QUANTITIES

C1.4 PRICING STRUCTURE

C1.1 PRICING INSTRUCTIONS

1 The General Conditions of Contract, the Contract Data, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Bill of Quantities.

2 The Bill comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.

Although the Bidder is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out.

Clause 8 of each Standardized Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations.

3 Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Company submitted on such a basis. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Bill the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail.

4 Unless stated to the contrary, items are measured net in accordance with the sites without any allowance having been made for waste.

5 The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items.

Such amounts shall cover all the costs and expenses that may be required in and for the provision of Security services in identified sites, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Bid is based.

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

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

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

Should the Bidder group a number of items together and bid one sum for such group of items, the single stated sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The stated rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

Rates quoted are fixed and quoted in ZAR currency; and shall not in any way be affected by rand/dollar exchange rate or any currency.

8 The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Bill of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities certified for payment.

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

Unit	:	The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of work at which the Bidder bids to do the work. Should be quoted in ZAR currency only

Amount : The quantity of an item multiplied by the bidder's rate of the (same) item. Should be quoted in ZAR currency only

Sum : An amount bidded for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units. Should be quoted in ZAR currency only

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

No	=	No
%	=	Percentage
Prov Sum	=	Provisional Sum

C2.3
BILL OF QUANTITIES

TSWELOPELE LOCAL MUNICIPALITY

PROJECT NAME:REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN HOOPSTAD/TIKWANA

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS 1200 A,AB	SCHEDULE 1 PRELIMARY AND GENERAL				
1.1		FIXED CHARGE ITEMS				
	A					
1.1.1	8.3.1	Contractual requirements	sum	1		
1.1.2	PSAB 1	The Contractor to provide a name board	No	2		
1.1.3	PSAB 5.5	The Contractor to provide survey assistant	sum	1		
1.1.4	PSAB 5.5	The Contractor to provide survey equipments	sum	1		
1.1.5	PSAB 3.2	The Contractor to provide offices, storage and carports	sum	1		
1.1.6		The Contractor to provide workshops	sum	1		
1.1.7		The Contractor to provide living accommodations	sum	1		
1.1.8	PS 7.1	The Contractor to provide ablution and latrine facilities	sum	1		
1.1.9		The Contractor to supply tools and equipments	sum	1		
1.1.10	PS 6.1&	The Contractor to provide water, electricity & communications	sum	1		
1.1.11	PSA 3.6	Deal with water as described in SANS 1 200 A section 5.5	sum	1		
1.1.12		The Contractor to establish access road to site	sum	1		
1.1.13	8.3.3	Other fixed charge obligations by the Contractor	sum	1		
1.1.14	8.3.4	The Contractor to remove site establishment	sum	1		
1.1.15		The Contractor to make provision for traffic control	sum	1		
1.2		TIME RELATED ITEMS				
	PSA					
1.2.1	8.4.1	Contractual requirements	sum	1		
1.2.2	8.4.2	The Contractor to maintain facilities on the site	sum	1		
1.2.3	8.4.3	The Contractor's supervision of the site	sum	1		
1.2.4	8.4.4	The Contractor's company and head office overhead costs	sum	1		
1.2.5	8.4.5	Other time related obligations by the Contractor	sum	1		
1.2.6		Time related costs for traffic control	sum	1		
1.3		PROVISIONAL SUMS BY THE ENGINEER				
	PSA					
1.3.1		Provisional sum for various tests requested by the Engineer	Prov	1	200 000,00	R 200 000,00
1.3.2		Contractor's overhead and profit on Item 1.3.1	%		200 000,00	
1.3.3		Provisional sum for the remuneration of the CLO on monthly basis as determined by the Client	Prov	1	100 000,00	R 100 000,00
1.3.4		Contractor's overhead and profit on Item 1.3.3	%		100 000,00	
1.3.5		Provisional sum for the Sitting Allowance of the PSC Members attending PSC meetings during the Construction Phase of the project	Prov	1	60 000,00	R 60 000,00
1.3.6		Contractor's overhead and profit on Item 1.3.5	%		60 000,00	
1.3.9	PASB 3.2.6	Provisional sum to provide the laptop with all accessories and	Prov	1	38 500,00	R 38 500,00
		necessary software to the Engineer.				
1.3.10		Contractor's overhead and profit on Item 1.3.9	%		38 500,00	
1.3.11		Provisional sum to provide the local sucontractors with PPE for the	Prov	1	70 000,00	R 70 000,00
		duration of the contract.				
1.3.12		Contractor's overhead and profit on Item 1.3.11	%		70 000,00	
1.3.13		Accredited and approved training courses for selected Local and other Labourers including wages during training	Prov	1	80 000,00	R 80 000,00
1.3.14		Contractor's overhead and profit on Item 1.3.13	%		80 000,00	R -
1.3.15		Protection and preservation of existing trees, shrubs and natural vegetation affected by construction activities, including temporary barriers, maintenance and removal of protective measures upon completion	Prov	1	50 000,00	50 000,00
1.3.16		Contractor's overhead and profit on Item 1.3.15	%		50 000,00	
1.3.17		EIA & EMP Compliance	Prov	1	150 000,00	150 000,00
1.3.18		Contractor's overhead and profit on Item 1.3.16	%		150 000,00	
		SCHEDULE CARRIED OVER TO PAGE C3-				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 1				
	1200A,AB	PRELIMARY AND GENERAL - DAYWORKS				
		SCHEDULE CONTINUED FROM PAGE 120				
1,4		LABOUR - NORMAL WORKING HOURS (PROVISIONAL)				
1.4.1		Skilled labour (Artisan)	hr	40		
1.4.2		Semi Skilled Labour	hr	48		
1.4.3		Unskilled Labour	hr	48		
1.4.4		Foreman	hr	32		
1.4.5		Extra -over for items 2.1.1 to 2.1.4 for working during non working hours	hr	24		
1,5		MATERIALS: (PROVISIONAL)				
1.5.1		Allowance for Materials used under Dayworks	Prov Sum	1	R50 000,00	R 50 000,00
1.5.2		Overheads, Handling and all charges on item 2.2.1	%		R50 000,00	R -
1,6		PLANT - HEAVY EQUIPMENT: (PROVISIONAL)				
		Plant shall not be more than 3 years old or have more than 3000hrs logged. Operator to be qualified and have competency certificate				
		Rates shall include transporation from site and de-establishment.				
1.6.1		Excavator - Size Cat 225	hr	10		
1.6.2		Excavator - TLB	hr	10		
1.6.3		Grader 140G or Similar	hr	10		
1.6.4		Front end loader - bucket capacity ≤ 1.5m³	hr	10		
1.6.5		Tipper Truck - 5m³ capacity	hr	10		
1.6.6		Vibratory compaction roller - 13.5 ton	hr	10		
1,7		PLANT - SMALL EQUIPMENT: (PROVISIONAL)				
1.7.1		Pedestrian roller - BW90 Or similar	hr	10		
1.7.2		Vibratory plate compactor	hr	10		
1.7.3		Vibratory rammer	hr	10		
1,8		TEMPORARY WORKS				
1.8.1		Provision and maintenance of construction access to sites, camp or pipeline routes as required by the Contractor	Sum	1		
1.8.2	PSA 8.8.3	Dealing with Existing services	Sum	1		
1.8.3	PSA 8.8.2	Dealing with surface and sub-surface water	Sum	1		
1.8.4		Wayleaves Applications	Sum	1		
		TOTAL CARRIED TO SUMMARY				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 2				
	1 200	WATER SUPPLY PIPE TRENCHES				
		DRAWING REFERS:				
12.1		SITE CLEARANCE				
	DB					
12.1.1	8.3.1	Remove vegetation and trees up to 1m girth	m	25 979		
12.1.2		Excavate by hand in all material to expose existing services as directed by Engineer.	m³	80		
12.2		EXCAVATIONS				
	DB					
12.2.1	8.3.2.a	Excavation for 75 mm Ø uPVC pipes, 800 x 1200 mm	m³	8271,000		
12.2.2	8.3.2.a	Excavation for 90 mm Ø uPVC pipes, 800 x 1300 mm	m³	5383,000		
12.2.3	8.3.2.a	Excavation for 110 mm Ø uPVC pipes, 800 x 1300 mm	m³	10425,000		
12.2.4	8.3.2.a	Excavation for 160 mm Ø uPVC pipes, 800 x 1300 mm	m³	89,000		
12.2.5	8.3.2.a	Excavation for 200 mm Ø uPVC pipes, 800 x 1300 mm	m³	958,000		
12.2.6	8.3.2.a	Excavation for 250 mm Ø uPVC pipes, 800 x 1300 mm	m³	822,469		
12.2.7	8.3.2.a	Excavation for 300 mm Ø uPVC pipes, 800 x 1300 mm	m³	31,000		
12.3		EXCAVATION ANCILLARY ITEMS				
12.3.1	8.3.2.b2	Extra over for excavation in hard rock material	m³	1 208		
12.3.2	8.3.2.b2	Extra over for excavation in boulder material	m³	1 208		
12.3.3	8.3.2.c	Extra over for additional deeper excavations	m³	1 208		
12.3.4	8.3.3.1.b	Make up deficiency in backfill material by importation	m³	1 208		
12.3.5	8.3.3.2	Open up borrow pit	sum	1		
12.3.6	8.3.3.3	Compaction in road reserves with 1:10 mix **soilcrete**	m³	15		
12.3.7		Remove and reinstate existing fences (no new material involved)	m	2 598		
12.4		DEALING WITH EXISTING SERVICES				
	DB					
12.4.1	8.3.5.a	Electrical cables crossing the new trenches	No	85		
12.4.2	8.3.5.a	Non optic post office cables and pipes crossing the new trenches	No	5		
12.4.3	8.3.5.a	House / stand connection pipes crossing the new trenches	No	5		
12.4.4	8.3.5.a	Main water pipes crossing the new trenches	No	5		
12.4.5	8.3.5.a	Main sewer pipes crossing the new trenches	No	5		
12.4.6	8.3.5.a	Other services not specified effecting the construction	No	5		
12.4.7	8.3.5.a	Open up for inspection of existing water pipes	No	5		
12.5		SURFACE FINISHING AT ROAD CROSSINGS				
	DB					
12.5.1	8.3.6.1.a	Re - instate all road surfaces to original state	m²	500		
12.5.2	8.3.6.1.a	Re - instate all walk ways, drive ways etc. to original state	m²	500		
12.6		PROVISION FOR BEDDING AND COVERING				
	LB					
12.6.1	8.2.1a	Class B bedding with selected excavated material & compacted to 90% MOD ASSHTO	m³	2 078		
12.6.2	8.2.1b	Class B blanket with approved selected fill material in 150mm thick layers and hand compacted to 90% MOD ASSHTO	m³	10 392		
12.6.3	8.2.2.2.a	Class B bedding with imported material from borrow pit and compacted to 90% MOD AASHTO	m³	104		
12.6.4	8.2.2.2.b	Class B blanket with imported material from borrow pit and hand compacted to 90% MOD AASHTO	m³	520		
12.6.5	8.2.2.2.c	Backfilling in 150mm thick layers compacted to 93% to 98% MOD AASHTO	m³	14 549		
12.6.6	8.2.2.3	15 MPa concrete encasement	m³	165		
12.6.7	8.3.4(b)	Dumprock, process and compact (from commercial source)	m³	65		
		TOTAL CARRIED TO SUMMARY				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 3				
	1 200	WATER MAINS				
		DRAWING REFERS:				
13.1		WATER PIPES				
	L					
		Supply & lay the following water pipes :				
13.1.1	8.2.1	75 mm Ø Class 9 uPVC Z - lok pipes	m	8616		
13.1.2	8.2.1	90 mm Ø Class 9 uPVC Z - lok pipes	m	5607		
13.1.3	8.2.1	110 mm Ø Class 9 uPVC Z - lok pipes	m	10859		
13.1.4	8.2.1	160 mm Ø Class 9 uPVC Z - lok pipes	m	93		
13.1.5	8.2.1	200 mm Ø Class 9 uPVC Z - lok pipes	m	997		
13.1.6	8.2.2	250 mm Ø Class 12 uPVC Z - lok pipes	m	900		
13.1.7	8.2.1	300 mm Ø Class 9 uPVC Z - lok pipes	m	31		
13.2		SPECIAL AND FITTINGS				
	L					
		Exra Over for Supply & install the following water pipe accessories :				
13.2.1	8.2.2	75 mm Ø pipe x 90 ° bend	No	10		
13.2.2	8.2.2	75 mm Ø pipe x 45 ° bend	No	7		
13.2.3	8.2.2	75 mm Ø pipe x 22.5 ° bend	No	2		
13.2.4	8.2.2	75 mm Ø pipe x 11.25 ° bend	No	2		
13.2.5	8.2.2	90 mm Ø pipe x 90 ° bend	No	1		
13.2.6	8.2.2	90 mm Ø pipe x 45 ° bend	No	3		
13.2.7	8.2.2	90 mm Ø pipe x 22.5 ° bend	No	2		
13.2.8	8.2.2	90 mm Ø pipe x 11.25 ° bend	No	1		
13.2.9	8.2.2	63 mm Ø pipe x 11.25 ° bend	No	1		
13.2.10	8.2.2	110 mm Ø pipe x 90 ° bend	No	12		
13.2.11	8.2.2	110 mm Ø pipe x 45 ° bend	No	4		
13.2.12	8.2.2	110 mm Ø pipe x 22.5 ° bend	No	3		
13.2.13	8.2.2	110 mm Ø pipe x 11.25 ° bend	No	5		
13.2.14	8.2.2	160 mm Ø pipe x 11.25 ° bend	No	1		
13.2.15	8.2.2	200 mm Ø pipe x 90 ° bend	No	7		
13.2.16	8.2.3	250 mm Ø pipe x 90 ° bend class 12	No	2		
13.2.17	8.2.4	251 mm Ø pipe x 45 ° bend class 12	No	1		
13.2.18	8.2.5	252 mm Ø pipe x 11.25 ° bend class 12	No	1		
13.2.16	8.2.2	90 x 90 Ø Tee	No	86		
13.2.17	8.2.2	90 x 75 Ø Tee	No	1		
13.2.18	8.2.2	75 x 50 Ø Tee	No	1		
13.2.19	8.2.2	75 x 63 Ø Tee	No	4		
13.2.20	8.2.2	63 x 63 Ø Tee	No	18		
13.2.21	8.2.2	160 x 160 Ø Tee	No	1		
13.2.22	8.2.2	200 x 110 Ø Tee	No	5		
13.2.23	8.2.2	200 x 200 Ø Tee	No	10		
13.2.24	8.2.2	200 x 90 Ø Tee	No	2		
13.2.25	8.2.2	200 x 63 Ø Tee	No	3		
13.2.26	8.2.2	200 x 75 Ø Tee	No	2		
13.2.27	8.2.2	110 x 110 Ø Tee	No	64		
13.2.28	8.2.3	110 x 90 Ø Tee	No	1		
13.2.29	8.2.2	110 x 75 Ø Tee	No	3		
13.2.30	8.2.2	75 x 75 Ø Tee	No	220		
13.2.31	8.2.2	75 Ø End cap	No	11		
13.2.32	8.2.2	110 Ø Cross	No	4		
13.2.33	8.2.2	90 Ø Cross	No	12		
13.2.34	8.2.2	75 Ø Cross	No	12		
13.3		WATER ANCILLARY ITEMS				
	L					
13.3.1	8.2.11	Construct anchor trust blocks and pedestals	m³	100		

TOTAL CARRIED TO SUMMARY	

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 4				
	1 200	VALVE BOX CHAMBERS				
		DRAWING REFERS:				
14,1		EARTHWORKS				
	D					
14.1.1	8.3.1.1	Excavate for valve box chamber, backfill and compact around	m³	251		
		after installation				
14,2		MISCELLANEOUS ITEMS				
	G					
14.2.1		**Supply &install complete class 16 AVKvalves as follows:**				
14.2.2		Isolating gate valves with chamber	No	157		
14.2.7		**Supply &install complete fire hydrants as follows:**				
14.2.7.1		75 mm Ø fire hydrant with hydrant chamber & hydrant tee	No	90		
14.2.8		**Supply & install complete air valve**				
14.2.8.1		supply and install complete air valve as per drawing :	No	2		
14.2.8		**Supply & install pipeline markers**				
14.2.8.1		supply and install pipeline markeres as per drawing :	No	300		
14.2.8		**Supply & install PN16 electromagnetic flow meter at asbtraction point**				
14.2.8.1		supply and install pipeline markeres as per drawing :	No	2		
		TOTAL CARRIED TO SUMMARY				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 5				
	1 200	YARD CONNECTIONS				
		DRAWING REFERS:				
18.1		EXCAVATIONS				
	LIC					
		Excavate by hand or machine in all materials for trenches, compact the				
18.1.1	8.2.1	trench base to 90% MOD AASHTO density, backfill by hand in 150mm	m	11 520		
		thick layers using excaated or imported material, compact the layers				
		to 90% MOD AASHTO, dispose of all surplus and unusable materials for				
		20, 25 and 32mm diameter pipes, trench width 700mm and depth of				
		1000mm				
18.2		METERED YARD (STAND) CONNECTIONS				
	LIC					
		Supply and install long single connection on 75-200mm diameteruPVC:				
18.2.1	8.2.2	Complete with all fittings as described on the relevant drawings	No	16		
		including a stand pipe with concrete splash block and Elster Kent				
		15mm water meter with plastic meterbox Class B V110TKSM				
		Item inclusive of all material and labour				
		The installation refers to new connection and regularizing of old				
		illegal water connections on the existing water networks				
18.2.2	8.2.2	**Supply and install long double connection on 75-200mm diameteruPVC:**	No	215		
		Complete with all fittings as described on the relevant drawings				
		including a stand pipe with concrete splash block and Elster Kent				
		15mm water meter with plastic meterbox Class B V110TKSM				
		Item inclusive of all material and labour				
		The installation refers to new connection and regularizing of old				
		illegal water connections on the existing water networks				
18.2.2	8.2.2	**Supply and install short single connection on 75-200mm diameteruPVC:**	No	29		
		Complete with all fittings as described on the relevant drawings				
		including a stand pipe with concrete splash block and Elster Kent				
		15mm water meter with plastic meterbox Class B V110TKSM				
		Item inclusive of all material and labour				
		The installation refers to new connection and regularizing of old				
		illegal water connections on the existing water networks				
18.2.2	8.2.2	**Supply and install short double connection on 75-200mm diameteruPVC**	No	351		
		Complete with all fittings as described on the relevant drawings				
		including a stand pipe with concrete splash block and Elster Kent				
		15mm water meter with plastic meterbox Class B V110TKSM				
		Item inclusive of all material and labour				
		The installation refers to new connection and regularizing of old				
		illegal water connections on the existing water networks				
		Formalizing illegal yard connections				
18.2.3	8.2.4	Removal of all existing pipes used for for unauthorized yard	No	25		
		connections.				
		Removed materials to be taken to Construction Site camp for storage				
18.3		WATER ANCILLARY ITEMS				
	LIC					
18.3.1	8.2.8	Break into and connect to existing water lines, seal and make good	No	10		
		all connections, that rate shall include all excavations, backfill and				
		re-compaction as per items 8.3.2 and 8.3.3 of SANS 1200 section DB				
		compacted to 90% MOD AASHTO density				
TOTAL CARRIED TO SUMMARY						

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 6				
	1 200	OCCUPATIONAL HEALTH AND SAFETY REQIREMENTS				
19.1		NOTIFICATION OF CONSTRUCTION WORK				
19.1.1	PS10.4.2	Notify the Provincial Director of construction work Reg.3	sum	1		
19.2		PROGRAM				
19.2.1	PS10.5	Set up a site and job specific H&S Plan including a file on site to	sum	1		
	PR10.32	contain the followings :				
	1	Copy of H&S Act 85 of 1993 including the Construction Regulations,				
		July 2003				
	2	Proof of registration with COID Insurer				
	3	Notification of construction work				
	4	Section 37(2) agreement				
	5	H&S specifications provided by the Client				
	6	Copy of tender document, drawings etc.				
	7	H&S Plan with all information as requested in the H&S specifications				
	8	Company safety policy to be signed by the CEO				
	9	Company organogrammme with respect of H&S on specific site				
	10	Letters of appointment for specific site				
	11	List of subcontractors for specific site				
	12	Evacuation plan from specific site				
	13	Training material and training records				
	14	Risk assessments and method statements				
	15	Registers as specified elsewhere				
	16	Safe work procedures and material safety data sheet				
	17	Fall protection plan				
	18	Incident recordings				
	19	Medical records				
	20	Minutes of H&S meetings				
		Note :				
		The file shall be a lever arch file with original color document of				
		acceptable standards				
		Emergency telephone numbers to be displayed on back of file				
		The file will be expanded during the project as and when required				
		by the Client				
19.3		SERVICE PROVIDER APPOINTMENTS				
19.3.1	PS10.9	Appoint a service provider to carry out a risk assessment	sum	1		
19.3.2		Appoint an H & S Induction trainer	sum	1		
19.3.3		Set up safe works procedures by a competent person	sum	1		
19.4		TRAINING COURSES				
19.4.1		Train the SHE representative	No	1		
19.4.2		Induct training of all workers	No	1		
19.4.3		Community training	No	1		
		SCHEDULE CARRIED FORWARD TO PAGE C3-9				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 6 CONTINUED				
	1 200	OCCUPATIONAL HEALTH AND SAFETY REQIREMENTS				
		\ SCHEDULE CONTINUED FROM PAGE C3-8				
19.4.4		Hold toolbox talks on environmental awareness	No	1		
19.4.5	PS10.13	Train on construction vehicles and mobile plant	No	1		
19.4.6		Hold talks on first aid awareness	No	1		
19.4.7		Hold talks on fire fighting awareness	No	1		
19.4.8		Set up HIV training - 7 units	No	1		
19.4.9		Hold tool box talks on hand tools and hand tool accidents	No	1		
19.4.10	PS10.12	Hold tool box talks on machine guarding	No	1		
19.4.11		Hold tool box talks on lifting materials by hand	No	1		
19.4.12	PS10.11	Hold tool box talks on safe loading	No	1		
19.4.13	PS10.14	Hold tool box talks on safety signs	No	1		
19.4.14		Hold tool box talks on ten commandments of safety	No	1		
19.5		SHE REPRESENTATIVE				
19.5.1	PS10.7	Appoint an SHE representative to be permanently on site	sum	1		
		Additional payment for workers appointed on specific H&S tasks :				
19.5.2		Accident investigator	sum	1		
19.5.3		Construction vehicle and mobile plant inspector	sum	1		
19.5.4		Hand tool inspector	sum	1		
19.5.5		Portable electrical equipments inspector	sum	1		
19.5.6		Stacking and storage inspector	sum	1		
19.5.7		Hygiene and hygiene facility inspector	sum	1		
19.5.8		Fire equipment inspector	sum	1		
19.5.9		First aid box inspector	sum	1		
19.5.10	PS10.8	Construction supervisor	sum	1		
19.5.11	PS10.15	Excavation inspector	sum	1		
19.5.12		Community liaison officer	sum	1		
19.6		FIRE FIGHTING EQUIPMENT				
19.6.1	PR10.28	Provide 3 kg fire fighting equipment suitable for electric fires on	No	3		
		each site				
19.6.2		Obtain inspection certificates of fire fighting equipment	No	3		
19.7		FIRST AID				
19.7.1	PR10.25	Provide a basic First Aid Kit	No	1		
19.7.2		Provide a stretcher	No	1		
19.8		PERSONAL PROTECTIVE CLOTHING				
19.8.1	PS10.37.	Shoulder length PVC Gloves	No	12		
19.8.2	PS10.37.	Plastic Trousers	No	12		
19.8.3	PS10.37.	Safety Goggles	No	40		
		SCHEDULE CARRIED FORWARD TO PAGE C3-10				

Item number	Payment reference	Item Description	Unit	Quantities tender	Rate	Amount Rands.cents
	SANS	SCHEDULE 6 CONTINUED				
	1 200	OCCUPATIONAL HEALTH AND SAFETY REQIREMENTS				
		\ SCHEDULE CONTINUED FROM PAGE C3-9				
19.8.4		Gum Boots	No	40		
19.8.5		Welding Helmet	No	40		
19.8.6	PS10.37.2	Gas Welding Safety Goggles	No	40		
19.8.7	PS10.37.4	Safety Shoes	No	40		
19.8.8		Dust Masks	No	40		
19.8.9	PS10.37.1	Hard hats	No	40		
19.8.10	PS10.37.6	Leather Aprons	No	40		
19.8.11		Respiratory masks	No	40		
19.8.12		Overalls	No	40		
19.9		MEDICAL TESTS				
19.15.1		Obtain medical fitness tests of all operators	No	10		
19.15.2		Provide Hepatitis A and B tests and vaccinations	No	10		
19.15.3		Provide Tetanus tests and vaccinations	No	10		
19.10		IDENTIFICATION CARDS				
19.10.1		Provide identification cards to employees	No			Rate only
		TOTAL CARRIED TO SUMMARY				

PROJECT NO: DATE: 11/26

TSWELOPELE LOCAL MUNICIPALITY

PROJECT NAME:REPLACEMENT OF OLD ASBESTOS PIPELINE AND ACCOMPANYING APPURTENANCES IN HOOPSTAD/TIKWANA

SUMMARY OF THE SCHEDULE OF QUANTITIES

		AMOUNTS			
		TENDER			
SCHEDULE 1	PRELIMARY AND GENERAL				
SCHEDULE 2	WATER SUPPLY PIPE TRENCHES				
SCHEDULE 3	WATER MAINS				
SCHEDULE 4	VALVE BOX CHAMBERS				
SCHEDULE 5	YARD CONNECTIONS				
SCHEDULE 6	OCCUPATIONAL HEALTH AND SAFETY REQIREMENTS				
TOTAL CONSTRUCTION VALUE					
ADD ESTIMATED CONTINGENCIES (10% OF CONSTRUCTION VALUE)					
TOTAL CONSTRUCTION & CONTINGENCY VALUE					
ADD ESTIMATED CPA (2% OF CONSTRUCTION VALUE)					
TOTAL CONSTRUCTION & CONTINGENCY VALUE & CPA					
ADD 15% VAT					
TOTAL VALUE CARRIED TO TENDER DOCUMENT'S FRONT PAGE					

PART C3: SCOPE OF WORKS

C3.1 Description of the Works

C3.2 Engineering

C3.3 Procurement

C3.4 Construction (Architectural, Civil and Structures)

C3.5 Management

Status

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Standardised Specification, or any drawings, the order of precedence, unless otherwise specified, is:

- Project Specifications
- Drawings
- Scope of Works
- The following variations and additions to the SANS 1200 Standardized Specifications referred to shall apply to this Contract.

C3.1 DESCRIPTION OF THE WORKS

CONTENTS

1. EMPLOYER'S OBJECTIVES
2. OVERVIEW OF THE WORKS
3. EXTENT OF THE WORKS
4. CONSTRUCTION PROGRAMME
5. CONTRACTOR'S CAMP SITE AND SITE FACILITIES AVAILABLE
6. SITE FACILITIES REQUIRED
7. FEATURES REQUIRING SPECIAL ATTENTION
8. ACCOMMODATION OF TRAFFIC

1. EMPLOYER'S OBJECTIVES

The objective of the project is to provide adequate, clean, reliable, safe and sustainable potable/drinking water to each household in Tikwana and Hoopstad area within the Tswelopele Local Municipality and develop SMME's in the area. The project intend to replace the old asbestos pipes posing safety issues.

This project will also be performed making use of local labour.

The project is to be completed within **15 Months** of the Commencement Date.

2. OVERVIEW OF THE WORKS

2.1 Location of the Site

The location of the works is in Hoopstad and Tikwana within the Tswelopele Local Municipality.

2.2 General description of scope of works

The work to be performed under this contract includes clearing the site/route of the pipeline, setting out, excavations, preparation of the bedding and compaction, laying of pressure pipes of sizes ranging from 75mm-200mm diameter, backfilling and making it neat, pressure testing, installation of yard connections and clearing of site in Hoopstad and Tikwana within the Tswelopele Local Municipality. This project will also be performed making use of local labour for the pipe bedding and installation of pipes and yard connections.

- Site clearance
- Setting out
- Pipeline route excavation
- Preparation of bedding and compaction
- Laying of pipes of various sizes ranging from 75 to 200mm diameter
- Backfilling and compacting
- Pressure testing according to SANS

- Installation of yard connections
- Making neat and raking
- Maximum use of local labour
- Relocation of existing services
- Reinstate existing boundary fences
- Organise for wayleaves

2.3 Temporary Works

The contractor is to design, supply, construct, demolish and spoil at his own cost any temporary works required in order to carry out the construction works as required.

2.4 Access

Furthermore, it is a requirement of this Contract that the contractor ensures that all residents have access to their properties after hours and on weekends; all businesses are to have access during business hours. The Contractor is to implement temporary measures / deviations as required in order to achieve this outcome. Prior to the implementation of any deviation, written permission for such deviations shall be obtained from the Employers Agent.

The Contractor shall advise all residents, community leaders and other stakeholders at least 2 weeks prior to the commencement of construction activities in an area. The Contractor is to employ a Community Liaison Officer in conjunction with the community structures in the area in order to achieve this outcome.

3. EXTENT OF THE WORKS

DRAINAGE WORK

The extent of drainage work involved in this contract is covered by the relevant sections of the Bill of Quantities and as shown on the relevant engineering drawings.

SERVICES

A schedule of affected services with the respective service authorities can be found in the provided tender drawings.

C.1. Telkom

The relocation of Telkom infrastructure is envisaged. If any damages occur (as a result of the Contractor's operations) the Contractor will be required to contact Telkom to arrange for timeous reparations to the services (at the Contractor's expense). The Contractor may not repair any damages himself unless specifically instructed (in writing) by Telkom to do so.

C.2. Municipal Services

Relocation of municipal services is foreseen at this stage. The existing services must be identified and clearly marked to prevent damages to these services.

C.3. Fibre Optic Cables

The relocation of fibre optic is envisaged. If any damages occur (as a result of the Contractor's operations) the Contractor will be required to contact the relevant service provider to arrange for timeous reparations to the services. The Contractor may not repair any damages himself unless specifically instructed (in writing) by the relevant service provider, to do so.

The cost of the repairs will be for the Contractors account.

The Contractor shall be responsible for applying for wayleaves where needed.

4. CONSTRUCTION PROGRAMME

The time for completion is **15 months**, excluding the special non-working days. The Contractor shall plan and programme his construction sequence for completion within the time period specified.

5. CONTRACTOR'S CAMP SITE AND SITE FACILITIES AVAILABLE

5.1 Location of Contractor's Camp Site

No specific land has been made available for the Contractor's camp site and office facilities for the Engineer. The Contractor shall make his own arrangements concerning a suitable approved site and location, as well as the provision of water, electricity and other services for the camp site and office facilities.

The Contractor's camp site shall be maintained in a neat and tidy condition and on completion of the Works, the camp area shall be cleared and reinstated; all to the satisfaction of the Engineer. Any damage to property shall be made good to the satisfaction of the Engineer and at the Contractor's expense.

5.2 Provision for Services

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

6. SITE FACILITIES REQUIRED

Office facilities as scheduled are required on the site for the Engineer or his representative.

7. FEATURES REQUIRING SPECIAL ATTENTION

7.1 Existing Services

Various types of services, both overhead and underground, exist within the boundaries of the site. It is envisaged that it will be necessary for the Contractor to arrange for the removal, relocation and protection of existing services. Should any work become necessary due to unforeseen circumstances then all work shall be done strictly in accordance with the requirements of the relevant service owner and in accordance with the requirements of these Works Specifications.

Procedures for the protection and/or relocation of such services are outlined in the Project Specifications. All costs related to the contents of this paragraph shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

7.2 Proposed Services

No new services are envisaged in this contract except water lines

7.3 Damage to Unknown Services

The Contractor shall provide service detection equipment to track all the unknown services, where damage is incurred to the unknown services at the time of construction, then the costs to repair and reinstate such services shall be borne by the Contractor. It is expected that the Contractor will include in his rate cost for such instances.

7.4 Construction in restricted areas

It will be necessary for the Contractor to work within restricted areas. No additional payment will be made for work done in such areas, despite indications to the contrary in the Standard Specifications.

7.5 Water for construction purposes

The Contractor must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

7.6 Weatherproof Protection for Workers

All staff required to continue working during rain shall be provided with approved protective clothing and footwear.

7.7 Night Work and Work on Public Holidays

Where the Contractor requires staff to work overtime, in accordance to the Basic Condition of Employment Act, he shall make the necessary arrangements with the Engineer and obtain written approval from the Engineer. The Contractor shall bear the cost of his overtime work.

7.8 Environmental Requirements

The Contractor shall take particular note of the environmental requirements contained in Part C of the Works Specifications.

Personnel and plant shall not enter property beyond the road reserve boundary irrespective of whether or not the boundary is fenced.

The Contractor shall take every precaution to avoid damage to vegetation within that area of the road reserve which falls outside the designated work area as indicated on the drawings. Any damage caused is to be repaired at the Contractor’s expense.

Storage and stockpiling of materials within the road reserve will not be permitted without the written consent of the Engineer. Excess material from excavations and waste material shall be spoiled off site at suitable locations.

7.9 Materials Supplied By The Client (MSC)

No material will be supplied by the Employer.

8. ACCOMMODATION OF TRAFFIC

8.1 General

The safety and convenience of the travelling public is to be considered of utmost importance and every effort must be made to ensure that all temporary road signs, cones, flagmen and speed controls are maintained and effective, and that courtesy is extended to the public at all times.

It is important that the traffic accommodation requirements described in these specifications are adhered to and that all installations meet with the approval of the relevant traffic authority.

Construction work, including the erection and removal of traffic control facilities, shall be executed between sunrise and sunset on Monday to Saturday, inclusive. Accommodation of traffic on the existing traffic lanes will be required throughout the construction contract period. The existing number of lanes for each traffic movement affected by construction shall not be reduced without the written authorisation of the Engineer.

It should be noted that Holidays are specified as “Special non-working days” in the Contract Data. In terms of the General Conditions of Contract the Engineer’s permission has to be obtained for work to be carried out on special non-working days, for which permission shall be applied for at least 2 days prior to the day.

The travelling public has 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 public roads.

Failure to maintain road signs, warning signs or flicker lights, etc, in good condition shall constitute ample reason for the Engineer to bring the works to a stop until the road signs, etc, have been repaired to his satisfaction and to impose the penalties as described in the Contract Data.

The Contractor may not commence construction activities before adequate provision has been made to accommodate traffic in accordance with the requirements of these specifications and Chapter 13 of Volume 2 of the South African Road Traffic Signs Manual (SARTSM).

The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Engineer for approval.

Access to properties shall be provided at all times. Should any access need to be temporarily closed, such a closure shall be communicated with the affected parties. The Contractor shall only commence with access restriction or closures upon approval of the affected parties and such approval shall be provided to the Engineer.

The safe ongoing use of the roadway under construction, including all planned detours and intersections shall be the full responsibility of the Contractor.

C3.2 ENGINEERING

DRAWINGS

The Works shall be constructed in accordance with the design drawings included in the Contract Documents.

The reduced drawings listed and included as part of the tender documents shall be used for tender purposes only.

The Contractor will be supplied with three (3) A1 prints of each of the drawings and any others required for construction. These copies are issued free of charge and the Contractor shall make any additional copies he may require at his own cost. No additional prints will be issued apart from revisions.

Only figured dimensions shall be used and drawings shall not be scaled unless otherwise instructed.

The levels given on construction drawings are subject to confirmation on site, and the Contractor shall submit all levels to the Engineer for confirmation before he commences any construction work. The Contractor shall also check all clearances given on the drawings and shall inform the Engineer of any discrepancies. The initial setting-out pegs shall be done by a registered land surveyor.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer’s Representative on a regular basis.

Any information in the possession of the Contractor, which the Engineer requires to complete his record drawings shall be supplied to the Engineer’s Representative before a certificate of completion will be issued.

C3.3 Procurement

PROCUREMENT

Requirements

The contractor shall be required to adopt labour based techniques through the full spectrum of the works with the proviso that the Clients specific objectives regarding time and quality are not compromised. Maximisation of employment shall be of the essence on this contract.

Together with their tenders, all Tenderers are required to submit a comprehensive implementation plan clearly stating the EPWP labour content and number of jobs that shall be created. The employment of labour shall be reflected in a programme in sufficient details to enable the Project Manager to monitor and compare it with the implementation plan.

The Contractor shall be required to submit employment data on a monthly basis to the Project Manager

The contractor and his subcontractors who makes use of EPWP labour, shall enter into written contracts with all the individuals classed as targeted labour and during the performance of the contract, furnish the Engineer with copies of all contracts entered into.

Tenderers are to also note that it is an explicit condition of this tender that all unskilled labourers on the project are to be employed from the local community. The Contractor shall in general, maximise the involvement of the local community and employ a minimum of 20 people or more.

3.3.2 Subcontracting – Special Conditions of Contract

Participation and Advancement of Start-Up, Small and Micro Enterprises

The Tswelopele Local Municipality (TLM) has identified job creation and access to procurement opportunities by Start-ups, Small and Micro enterprises (SMMEs) as an essential requirement towards building an economically viable City. In this regard the following definitions are applicable:

“Start-up Enterprises” means an enterprise that has been in existence and operating for less than two years.

“Small Enterprises” means an enterprise that has a CIDB grading designation of 1 or 2.

“Micro Enterprises” means an enterprise that has a CIDB grading designation of 3.

“Locally based SMMEs” means enterprises that have their operational base in the ward in which the project is to be executed or, alternatively, the members of the enterprise are resident in the particular ward. Should suitable locally based SMME contractors as defined above not be available in the particular ward, then they shall be sourced from adjacent wards.

C3.4 CONSTRUCTION

WORKS SPECIFICATIONS

The Standard Specifications on which this contract is based are the South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SANS 1200, and the General Condition of Contract, 3rd Edition 2015

Although not bound in or issued with this document, the following SANS 1200 Standardized Specification for Civil Engineering Construction as approved by the Council of the South African Bureau of Standards shall apply to this Contract.

SANS 1200 A	:	General
SANS 1200 AB	:	Engineer's Office
SANS 1200 C	:	Site Clearance
SANS 1200 D	:	Earthworks
SANS 1200 G	:	Concrete (Small Works)
SANS 1200 H	:	Structural Steelwork

CONTENTS

C3.4.1 PART A: GENERAL

A1 GENERAL

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A 1	Particular Generic Specifications
A 2	Plant and Materials
A 3	Construction Equipment
A 4	Existing Services
A 5	Site Usage
A 6	Permits
A 7	Inspection of Adjoining Properties
A 8	Electricity for Construction Purposes
A 9	Survey Control and Setting Out of the Works
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A 11	Software Application for Programming
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A 23	Schedule of penalties for non-compliance	

C3.4.1 PART A: GENERAL

A GENERAL

A 1 Particular generic specifications

For the purpose of this Contract:

where gender terms are used, it shall be applicable to both male and female.

“VAT” shall mean Value Added Tax in terms of the Value Added Tax Act 89 of 1991 as amended.

A 2 Plant and materials

The Contractor is required to provide all plant and materials necessary to carry out the works as required.

A 3 Construction equipment

The Contractor is required to provide all equipment necessary to carry out the works as required. No additional allowances other than those already specified in the schedule of quantities shall be allowed for with respect to equipment.

A 4 Existing services

The Contractor:

must make provision for the possible existence of numerous services (e.g.: Stormwater, Water, Electrical, Eskom, Telkom, etc.) within and in close proximity to the work areas.

shall be provided with record information from services authorities to enable him to apply for wayleave at the responsible authority.

is to record on as built drawings the location of existing services or services which have been relocated during Contract Period.

must inform the relevant service provider immediately (within 2 hours of incident) such that procedures for the reinstatement of the service can be effected, should he damage or break an existing service (whether known or unknown).

is responsible to provide his own equipment in order to determine the location of existing services. The provision of such equipment shall be deemed to have been included in the rates.

A 5 Site usage

Site usage shall be limited to hours as specified in the Contract Data, unless prior arrangement is made with the Engineer.

A 6 Permits

The Contractor will be required to obtain permits from all the applicable service provider’s within the jurisdiction of the Municipality. It is the Contractor’s responsibility to obtain final permit approval according to applicable procedures and specifications. Permits associated costs shall be deemed to have been included in the scheduled rates for excavation and location of existing services under the relevant section of SANS 1200 A.

A 7 Inspection of adjoining properties

The Contractor shall carry out inspections and evidence collection of properties adjoining the works to ensure that in the event of a claim arising from any of the owners of the adjoining properties for damage to property and the like, the Contractor has substantial evidence to support or refute such claims. The Contractor accepts full liability and responsibility for damage which he causes to adjoining properties as well as any costs involved in refuting or processing of such claims.

A 8 Electricity for construction purposes

The Contractor shall make arrangements with the relevant authority for the supply and distribution of power for purposes of this Contract, the cost of which shall be deemed to be included in the rates inserted in the Schedule of Quantities.

Power used for carrying out of the works in accordance with these Specifications will not be subject to measurement or payment.

A 9 Survey control and setting out of the works

The Contractor is to confirm the levels and coordinates of all benchmarks prior to commencing with construction.

A10 Method Statement

The Contractor shall provide the Engineer with a method statement indicating the manner and sequence in which he intends to construct the works, for each work area, with the program. In the method statement the Contractor must address at least the following items:

1. Sequence of the works for the relevant works area
2. Target dates for the tasks identified in sequence of the works for the relevant works area
3. Materials requirements
4. Construction Plant to be used
5. Services affecting construction
6. Any factors that could affect construction progress after commencement

The method statement must be approved by the Engineer before commencement of construction. In order to minimize the impact on traffic, pedestrians and business the Contractor will be required to segment the works in such a manner that no portion of the works is more than one day ahead of the following position i.e. trenches cannot be excavated more than one day ahead of pipe laying, pipes more than one day in advance of manhole construction and finishing off etc. These segments of the works shall be clearly defined in the Contractor's method statement for each work area.

The approval by the Engineer of any program shall have no contractual significance other than that the Engineer would be satisfied if the work is carried out in accordance to such program and that the Contractor undertakes to carry out the work in accordance with the program. It shall not limit the right of the Engineer to instruct the Contractor to vary the program should circumstances make this necessary.

A11 Software application for programming

The construction programme shall be completed in Microsoft ® Project 2019 or compatible software. The construction programme and updated versions thereof shall be made electronically available to the Engineer.

A12 Methods and procedures

The methods and procedures for the execution of the works shall be in accordance with the standard specifications and the variations and additions thereto.

A13 Quality plans and control

The Contractor shall be required to provide and maintain a quality plan to ensure that the quality of all work components is of a high standard. Such a quality plan shall be approved by the Engineer.

A14 Accommodation of traffic on public roads occupied by the Contractor

Accommodation of traffic

The Contractor shall ensure the safe accommodation of traffic at all areas where the work may impact on traffic and shall provide all drums, watching, lighting, signs and barricades required by the road authorities, and in accordance with the South African Road Traffic Signs Manual. Penalties shall be imposed on the Contractor for non-compliance.

Access to properties

Adequate access shall at all times be maintained to public and private properties unless otherwise arranged and approved. Details of the proposed means of access shall be submitted before any such access is restricted. Claims arising from impeded access shall be the responsibility of the Contractor.

At least 2 days before commencing any work affecting access to a property, the Engineer and the occupier/owner of each such property shall be notified of the Contractor's intention to commence work, the date of commencement, expected duration and arrangements which will be made regarding maintenance of access.

Transport Department requirements

The Contractor must provide a bridge with side rails across excavations to allow pedestrians access to the sidewalk. Allowance for the costs associated with providing pedestrian access to sidewalks will be deemed to have been included under relevant Items in the Schedule of Quantities.

Services

Services to a property shall remain unimpeded. Where necessary for access or egress, excavated and filled works, concrete or asphalt surfaces shall be satisfactorily covered temporarily to protect the work from damage and to maintain access.

No by-passes shall be constructed by the Contractor without consulting with the Engineer, the approval shall be given by the engineer in writing.

A15 Other contractors on site

There may be other contractors working in close proximity and/ or within the site boundaries road reserve completing other projects. As such, the Contractor is required to make adequate allowances for such possibilities. No claims with respect to works being carried out by other contractors will be entertained by the Employer.

A16 Testing, completion, commissioning and correction of defects

The onus is on the Contractor to produce work which will conform in quality and in accuracy of detail to the requirements hereinafter specified. The Contractor must clearly understand that it is not a duty of the Engineer or his representative to act as foreman or surveyor on the Works.

The Contractor shall, at his own expense, provide experienced engineers, foremen and surveyors together with all transport, instruments and equipment for supervising, checking and controlling the work.

The act of passing any completed work for payment by the Engineer shall not be construed as signifying approval or acceptance there-of. Failure on the part of the Engineer to reject any defective work or material shall not in any way relieve the Contractor of his obligations under the Contract, nor prevent later rejection when such work or material is discovered.

The contractor shall keep files of all the test results, which shall be accessible by the Engineer at any time. Two copies of these files shall be provided to the Engineer at the end of the project.

A17 Key personnel

The Contractor is to provide the Curriculum Vitae's of key personnel to be employed on the project as well as the person's position and responsibilities within the project team. The Contractor shall provide the following minimum key staff:

Contracts manager;

Site Agent;

Health and Safety Officer; and

Foremen.

A18 Management meetings

Bi-Weekly site meetings shall be arranged and facilitated by the Engineer. Senior Contractor management staff attendance shall be compulsory. The Contractor shall be required to provide reporting with regard to project progress, resources (human, plant and equipment), community issues, environmental and health and safety aspects.

In an event that the senior Contractor management doesn't attend the meeting without notifying the Engineer 2 days prior to the meeting, the Engineer will levy a penalty of R2500/meeting.

A19 Forms for contract administration

The Contractor shall maintain files which shall contain project information related to project progress, resources (human, plant and equipment), community issues, environmental, health and safety aspects, penalties imposed, claims lodged and outcomes, disputes and resolutions, payment and variations.

A20 Daily records

The Contractor shall keep daily site records as required by the Employer and as specified herein. Daily records shall include, labour, plant, materials, rainfall, daily diary and the like and must be signed by the Engineer. If the Contractor fails to provide/keep the information the Engineer will levy a penalty of R450/day.

A21 Payment certificates

Payment certificates shall be submitted to the Engineer, in the format required, for approval and final submission to the Employer monthly.

A22 FEATURES REQUIRING SPECIAL ATTENTION

A22.1 Security

The Contractor is responsible to provide his own security on site, as he deems necessary. The Employer shall not be held responsible for any loss or damage suffered by the Contractor, his plant, equipment, materials, subcontractors or employees as a result of a security incident of any nature.

A 22.2 Community liaison and community relations

The Contractor will be required to employ a community liaison officer for each section of the works for the duration of the construction activities, taking place within such area. The community liaison officer is to be appointed in consultation with the relevant ward councillor.

A 22.3 Notices and warning to the public

The Contractor must provide written notice to all consumers affected by the construction activities. The written notice shall outline the:

nature of the works;

expected inconvenience / disruption that the consumers can expect;

timeframes for construction; and

contact details in case of problems encountered.

A 22.4 Causes for rejection

Causes for rejection of the works shall include but is not limited to:

incorrect grades and crossfalls;

poor kerbing alignment and broken kerbs

incorrect vertical and horizontal alignments

layerworks and surfacing fail density and other prescribed tests

Incorrect pipe grades, water infiltration at joints, poor workmanship to kerb inlets, manholes, etc.

A23 SCHEDULE OF PENALTIES FOR NON-COMPLIANCE

The following amounts will be deducted from the Contractor for non-compliance throughout the duration of the contract. The penalty will be effect after 48 hours after the Engineer notified the Contractor of the non-compliance thereof.

Non-compliance with the OHS regulations e.g., unsafe conditions on site, un-updated safety file etc = R1500/incident.

Non-compliance with supplying all or one of the items required for the site establishment indicated on PSAB 1.2, PSAB 2.1 and PSAB 2.2 = R850/day.

Failure by Contractor’s senior management to attend project meetings without giving 2 days’ notice to the Engineer prior the meeting date = R2500/meeting.

Failure to complete project at the due completion date = R8000/day.

Failure to keep or record daily information on the site diary = R450/day.

C3.4.1 PART B: PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS

Notes to the tenderer

VARIATIONS AND ADDITIONS TO SANS 1200 STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

The following variations and additions to the SANS 1200 Standardized Specifications referred to shall apply to this Contract.

The prefix “PS” indicates an amendment to SANS 1200. The prefix “PSA” indicates an amendment to SANS 1200 A, “PSDB” to SANS 1200 DB and so on.

The letters and numbers following these prefixes respectively indicate the relevant Standardized Specification and clause numbers in SANS 1200 to which the variation or addition thereto applies.

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

The terms “project specification” or “Portion 2 of the project specification” appearing in any of the SANS 1200 Standardized specifications shall be replaced with the term “Scope of Work”.

The term “Scope of Work” shall mean Part 3 of The Contract.

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

The variations and additions to the SANS 1200 Standardized Specifications follows herewith:

PSA GENERAL

PSA 1 SCOPE

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

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

PSA 2 INTERPRETATIONS

PSA 2.3 DEFINITIONS

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

a) General

Add the following definitions:

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

Specified As specified in the Standardized Specifications, the Drawings or the Scope of Work. “Specifications” shall have the corresponding meaning.”

c) Measurement and payment

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

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

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

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

PSA 2.4 ABBREVIATIONS

a) Abbreviations relating to standard documents

Add the following abbreviation:

“CKS: SANS Co-ordinating Specification.”

PSA 3 MATERIALS

PSA 3.1 QUALITY

Where applicable, materials shall bear an official standardization mark.

Add the following:

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

“PSA 3.3* ORDERING OF MATERIALS

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

PSA 4 PLANT

PSA 4.1 SILENCING OF PLANT

Replace the contents of Clause 4.1 with the following:

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

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

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

PSA 4.2 CONTRACTOR'S OFFICES, STORES AND SERVICES

Add the following at the end of the first paragraph of Clause 4.2:

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

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

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

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

PSA 5 CONSTRUCTION

PSA 5.1 SURVEY

PSA 5.1.1 Setting out of the Works

The installed benchmarks and erf boundary pegs shall be used by the Contractor for setting out the works.

Add the following paragraph:

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

PSA 5.1.2 Preservation and replacement of survey beacons and pegs subject to the Land Survey Act

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

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

Replace the third sentence of Clause 5.1.2 with the following:

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

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

(a) cannot reasonably be re-established in their original positions by reason of the finished dimensions of the Permanent Works; and

(b) the Contractor can prove beyond reasonable doubt and to the satisfaction of the Engineer, were disturbed, damaged or destroyed by others beyond its control, and

(c) were in close proximity to the work and which would unavoidably be removed, subject to the Engineer’s approval being given to remove such pegs.”

PSA 5.2 WATCHING, BARRICADING AND LIGHTING AND TRAFFIC CROSSINGS

Add the following:

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

PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

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

"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES

PSA 5.4.1 Location of existing services

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

Without in any way limiting its liability in terms of the Conditions of Contract in relation to damage to property and interference with services, the Contractor shall, in collaboration with the Engineer, obtain the most up-to-date plans as are available, showing the positions of services existing in the area where it intends to work.

Neither the Employer nor the Engineer offer any warranty as to the accuracy or completeness of such plans and because services can often not be reliably located from plans, the Contractor shall ascertain the actual location of services depicted on such plans by means of careful inspection of the Site.

Thereafter, the Contractor shall, by the use of appropriate methodologies, carefully expose the services at such positions as are agreed to by the Engineer, for the purposes of verifying the exact location and position of the services. Where the exposure of existing services involves excavation to expose underground services, the requirements of Clauses 4.4 and 5.1.2.2 of SANS 1200 D (as amended) shall also apply.

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

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

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

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

(a) Known Services, anywhere along the entire lengths of their routes, as may reasonably be deduced from the actual locations at which their positions were verified as aforesaid, due cognisance being taken of such deviations in line and level which may reasonably be anticipated; and

(b) any other service which ought reasonably to have been a Known Service in accordance with the provisions of this Clause;

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

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

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

PSA 5.4.2 Protection during construction

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

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

PSA 5.4.3 Alterations and repairs to existing services

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

Should damage occur to any existing services, the Contractor shall immediately inform the Engineer, or when this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases, the Contractor shall take appropriate steps to minimise damage to and interruption of the service. No repairs of telecommunication cables or electric power lines and cables shall be attempted by the Contractor, unless approved by the Engineer.

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

PSA 5.7 SAFETY

Replace the contents of subclause 5.7 with the following:

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

(a) Provide to its Employees on the site of the works, all safety materials, clothing and equipment necessary to ensure full compliance with the provisions of the Occupational Health

and Safety Act (Act No 85 of 1993) and associated Regulations as amended (hereinafter referred to as the Act) at all times, and shall institute appropriate and effective measures to ensure the proper usage of such safety materials, clothing and equipment at all times; and

(b) Provide, install and maintain all barricades, safety signage and other measures to ensure the safety of workmen and all persons in, on and around the site, as well as the general public; and

(c) Implement on the site of the works, such procedures and systems and keep all records as may be required to ensure compliance with the requirements of the Act at all times; and

(d) Implement all necessary measures so as to ensure compliance with the Act by all subcontractors engaged by the Contractor and their employees engaged on the works; and

(e) Full compliance with all other requirements pertaining to safety as may be specified in the Contract.

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

Where any such investigations reveal, or where it comes to the Employer's attention that the Contractor is in any way in breach of the requirements of the Act or is failing to comply with the provisions of this clause, the Engineer shall, in accordance with the provisions of Clause 5.11 of the Conditions of Contract, be entitled to suspend progress on the works or any part thereof until such time as the Contractor has demonstrated to the satisfaction of the Employer, that such breach has been rectified.

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

Persistent and repeated breach by the Contractor of the requirements of the Act and/or this clause shall constitute grounds for the Engineer to act in terms of Clause 9.12 of the Conditions of Contract and for the Employer to terminate the Contract in accordance with the further provisions of the said Clause 55."

"PSA 5.9* MAINTAINING SERVICES IN USE

The Contractor shall take note that he shall not cut off any service in use without the prior approval of the Engineer and the knowledge of the residents. Further, no existing services in use shall remain cut off for more than 8 hours or overnight.

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

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

"PSA 5.10* DEALING WITH AND ACCOMMODATING TRAFFIC

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

Traffic accommodation and signage shall be erected and maintained by the Contractor and the number and layout of the traffic signs shall comply with the South African Development Community's South African Road Traffic Signs Manual, Volume 2 – Chapter 13, Roadworks Signing.

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

Payment will be made for the cost of dealing with and accommodating traffic in accordance with 8.8.2. Further, the provision of PSA 5.2 shall apply."

"PSA 5.11* SITE MEETINGS

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

"PSA 5.12* PROVIDING ACCESS TO ERVEN AND PROPERTIES

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

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

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

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

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

"**PSA 5.13* ACCOMMODATION OF OTHER CONTRACTORS**

The Contractor shall be required to accommodate other contractors on the Site of the Works during the entire Contract period.

Adequate access to the site of their works shall be given the contractors at all times.

No direct payment will be made for the cost of providing adequate access and accommodating the stated contractors on the Site of the Works, as well as the cost of any inconvenience or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract.

"PSA 5.14* ENVIRONMENTAL MANAGEMENT PLAN, RECORD OF DECISION AND SPECIFICATIONS

The Contractor shall be required to comply with and assume responsibility for compliance with the National Environmental Management Act, (Act 107 of 1998) in respect of the execution and completion of the Works.

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

No extension of time will be considered for delays due to non-compliance with the abovementioned.

No direct payment will be made for the cost of complying with the above-mentioned or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract. (Refer also to the contents of Clause 4.3 of the Conditions of Contract."

PSA 6 TOLERANCES

"PSA 6.4* USE OF TOLERANCES

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

Except where the contrary is specified, or when clearly not applicable, all quantities for measurement and payment shall be determined from the 'authorized' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Engineer, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorized' dimensions.

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

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

PSA 7 TESTING

PSA 7.1 PRINCIPLES

PSA 7.1.2 Standard of Finished Work Not to Specification

Insert the words “or checks by an approved laboratory ..." after the words “Where the Engineer’s checks ...” in the first line of Clause 7.1.2.

PSA 7.2 APPROVED LABORATORIES

Replace the contents of Clause 7.2 with the following:

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

(a) any testing laboratory certified by the South African National Accreditation Systems (SANAS) in respect of the nature and type of testing to be undertaken for the purposes of the Contract;

(b) any testing laboratory owned, managed or operated by the Employer or the Engineer;

(c) any testing laboratory established and operated on the Site by or on behalf of the Employer or the Engineer;

any testing laboratory designated by the Engineer.”

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 MEASUREMENT

PSA 8.1.1 Method of measurement, all sections of the Schedule

Delete the words "and South West Africa".

PSA 8.1.2 Preliminary and General item or section

PSA 8.1.2.1 Contents

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

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

PSA 8.1.2.2 Tendered sums

Replace the contents of this Sub-Clause with the following:

"Except only where specific provision is made in the Specifications and/or the Bill of Quantities for separate compensation for any of these items, the Contractor's tendered sums under items PSA 8.3.1 and PSA 8.4.1 shall collectively cover all charges for:

- risks, costs and obligations in terms of the Conditions of Contract and of this standardized specification; and
- head-office and site overheads and supervision; and
- profit and financing costs; and
- expenses of a general nature not specifically related to any item or items of the permanent or temporary work; and

providing such facilities on site as may be required by the Contractor for the proper performance of the Contract and for its personnel, including, but without limitation, providing offices, storage facilities, workshops, ablutions, services such as water, electricity, sewage and rubbish disposal, access roads and all other facilities required, as well as for the maintenance and removal on completion of the works of these facilities and cleaning-up of the site of the Contractor’s establishment and reinstatement to not less than its original condition, and

- providing the facilities for the Engineer and his staff as specified in the Contract and their removal from the site on completion of the Contract."

Cost for checking and verifying benchmark and pegs at commencement of the contract.

PSA 8.2 PAYMENT

PSA 8.2.2 Time-related items

Replace the contents of Clause 8.2.2 with the following:

"Subject to the provisions of sub clauses 8.2.3 and 8.2.4, payment under item 8.4.1 (time-related item) will be made monthly in equal amounts, calculated by dividing the sum tendered for the item by the tendered Contract period in months, provided always that the total of the

monthly amounts so paid for the item is not out of proportion to the value of the progress of the Works as a whole.

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

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

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

Sum of Tendered amounts for Time Related Items x

Extension of Time authorised by Variation Order

Tender Contract period

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

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

In the case of fixed price contracts, the amount by which the Time-Related Items is adjusted shall not be subject to the Contract Price Adjustment formula. Similarly, in the case of contracts subject to Contract Price Adjustment the amount by which the time-related items are adjusted shall be subject to the Contract Price Adjustment formula."

PSA 8.3 SCHEDULED FIXED-CHARGES

PSA 8.3.1 Contractual requirements

Add the following:

"The sum tendered shall cover all costs incurred in complying with the requirements of the Conditions of Contract, the Scope of Work as well as the fixed costs applicable to the obligations and requirements applicable to the Micro Enterprises Subcontract work as detailed under C3.3: Procurement and C3.5 Management of Part 3: Scope of Work, including the calling and evaluations of such tenders.

Where applicable in terms of the Contract, the sum tendered shall include for the cost of providing and maintaining the special risks insurance stipulated in the Conditions of Contract."

PSA 8.3.2.1 Facilities for Engineer

Replace the contents of this Clause with the following:

“(a) Two Contract Nameboards Unit: Sum

(b) Engineers Offices Unit: Sum

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

PSAB 1 MATERIALS (Subclause 3)

PSAB 1.1 Nameboards (Subclause 3.1)

In the third line delete "with the recommendations for the standard board of the South African Institution of Civil Engineers" and substitute " as shown on the drawings".

PSAB3.2 Office Building(s) (Subclause 3.2)

Add to the Sub-Clause:

In addition to the furnishings listed under sub-items (a) to (i), the following shall be provided and properly maintained: This Specification covers the requirements for office, laboratory, storeroom, locker room, car ports, laboratory equipment and the minimum associated facilities for the use of the Engineer on the site. The Contractor shall provide and lay crusher stones on the entire area of the site camp.

(j) If power is to be used by the Contractor on site electrical installation is to include a light and two 15A plug points plus an adequately sized air conditioning unit * (for heating and cooling) or, alternatively, one 2000 W electric heater and one 375 mm diameter electric fan.

or

(j) If power is unlikely to be available on site:

One gas operated light and one gas operated heater plus an adequate supply of gas.

(k) One refrigerator of at least 100 litre capacity to suit power supply

(l) One kettle of at least 2 litre capacity to suit power supply

(m) One tea set comprising 7 cups and saucers, 7 teaspoons, one tea pot, one sugar bowl and one milk jug

(n) Covered parking for 4 vehicles made of steels poles and net

(o) Uncovered parking space for 4 vehicles

(p) One A1 sized drawing board and matching tee-square

(q) One electric or battery-operated calculator

(r) A4 Triplicate Books (300 Sheets) of which the Engineer will supply sheet templates, 8 x Site Diary Books and 2 x Site Instruction Books.

(y) A WiFi router with uncapped data.

PSAB 2 PLANT (Subclause 4)

PSAB 2.1 Cellular Telephone, Laptop Computer and Printer

Delete the Sub-Clause and substitute the following:

The Contractor shall, subject to availability from communication service provider, arrange for the purchasing of a mobile phone in the Engineer's office, for the sole use of the Engineer or his representative. The contractor shall make available a laptop and printer for the sole use of the engineer

PSAB 5.5 Survey Equipment (Subclause 4.2)

Add new Sub-Clause:

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

One theodolite capable of reading to twenty seconds of arc plus tripod

One automatic level and tripod

One levelling staff (4 m long, 1 cm gradations)

Two tacheometric staffs ;(5 m long, 1 cm chess board pattern)

One spirit level (one metre long)

Six steel-tipped ranging rods each 2,5 m long

One 100 m stilon tape

One 5 m steel tape

One hammer (2 kg)

One electronic detector for locating underground services

Steel pegs in sufficient quantities as required

The theodolite may be shared by arrangement between the Contractor and the Engineer or his representative on Site, but the remaining instruments shall be provided for the exclusive use of the Engineer or his representative on Site. The Contractor shall maintain the equipment in good working order and keep it clean until the completion of the Works. The Contractor shall keep the equipment continuously insured against any loss, damage, or breakage and he shall indemnify the Engineer and the Employer against any claims in this regard. Upon completion of the Works the survey equipment as listed above shall revert to the Contractor. The Contractor shall provide the Engineer with an assistant to hold the staff during the project.

PSA 8.3.2.2 Facilities for Contractor

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

PSA 8.3.3 Other Fixed-charged Obligations

Add the following:

"The sum tendered shall in addition cover the fixed costs of all obligations and requirements applicable to the subcontract work as detailed under C3.3: Procurement and C3.5 Management of Part 3: Scope of Work."

PSA 8.4 SCHEDULED TIME RELATED ITEMS

PSA 8.4.1 Contractual requirements Unit: Sum

Add the following:

"The sum tendered shall cover all costs incurred in complying with the requirements of the Conditions of Contract, the Scope of Work as well as any time-related costs applicable to the obligations and requirements applicable to the Subcontract work as detailed under C3.3: Procurement and C3.5 Management of Part 3: Scope of Work, including the calling and evaluations of such tenders.

Where applicable in terms of the Contract, the sum tendered shall include for the cost of providing and maintaining the special risks insurance stipulated in the Conditions of Contract.

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

The maintenance of his whole organisation as established for this Contract.

The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract, where applicable.

Compliance with all general conditions and requirements which are not specifically measured elsewhere for payment in these Contract Documents.

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

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

PSA 8.4.2.1 Facilities for Engineer

Replace the contents of this Clause with the following:

"(a) Two Contract Nameboards Unit: Sum

(b) engineers Offices……..Unit:Sum

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

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

PSA 8.4.2.2 Facilities for Contractor

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

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

"duration of construction as defined in PSA 8.1.2.1".

PSA 8.4.5 Other Time-related Obligations

Add the following:

"The sum tendered shall in addition cover the time-related costs of all obligations and requirements applicable to the subcontract work as detailed under C3.3 Procurement and C3.5 Management of Part 3: Scope of Work."

"PSA 2* Dayworks

The labour classes shall be defined as follows;

a) Skilled – Site Management Staff e.g., Contract Manager, Site Agent

b) Semi-Skilled – Site Foremen, Operator etc

c) Un-skilled – General labour

The use of daywork rates shall only be paid for work that was agreed in writing by the Engineer.

PSA 8.5 SUMS STATED PROVISIONALLY BY THE ENGINEER

Replace the contents of Clause 8.5 with the following:

"PSA 8.5.1 Works Executed by the Contractor Unit: Prov Sum

Note that these Provisional Sums are allocated for anticipated work that must be executed by the Contractor and which, at tender stage, could not have been determined or quantified. Refer Clause 6.6 of the Conditions of Contract.

The work identified and stated will not constitute a variation in terms of the Contract although the value of such work will be determined in accordance with the principals pertaining to the value of a Variation Order as set out in Clause 6.4 of the Conditions of Contract.

The Contractor will be reimbursed in substitution of the Provisional Sums (if any) allowed in the Bill of Quantities for work to be executed by the Contractor, in the amounts determined in accordance with the provisions of Clauses 6.4 and 6.6.1 of the Conditions of Contract.

The description of the payment item in the Bill of Quantities will specify and dictate the work to be executed."

"PSA 8.5.2* Additional testing required by the Engineer Unit : Provisional Sum

The provisional sum provided in the Schedule of Quantities is to cover the payment of the SANAS registered soils Laboratory to conduct CBR, MOD's and Atterberg Limit tests as directed by the Engineer."

PSA 8.5.3* Overhead, charges, profit etc on item PSA 8.5.2 Unit : %

The percentage tendered shall be paid to the Contractor on the actual amount paid to the soils laboratory and shall cover the following:

- all costs involved in rectifying and arranging the tests with the laboratory.
- setting out the positions for the tests to be taken by the laboratory as indicated by the Engineer.
- making good all test holes with subbase.
- the cost of all overheads, charges and profits

PSA 8.8 TEMPORARY WORKS

PSA 8.8.2 Dealing with Traffic

Delete the entire Clause. The provision of PSA 5.10 shall apply. Refer also PSA 5.2, PSA 5.3, PSA 5.7 and PSA 5.12”

an extension of time be considered for delays due to non-compliance with the Contractor's health and safety plan.

The sums will be paid to the Contractor in equal monthly amounts.

Refer also PSA 5.2, PSA 5.3, PSA 5.7 PSA 5.10, PSA 5.12, PSA 5.13 and PSA 5.14”

PSAB ENGINEER'S OFFICE

PSAB 3 MATERIALS

PSAB 1.1 NAMEBOARDS

Notwithstanding the provisions of this Sub-Clause, two Contract Nameboards shall be provided. The nameboards shall further comply with regard to size, painting, decorating and detail as detailed on the drawings.

PSAB 1.2 OFFICE BUILDING(S)

Add the following after “Engineer.” in the second last sentence:

“The Engineer will require an office, as follows :

At least 15 m2

One desk

3 chairs

Two lights

Air conditioner

2 electric plugs

One car port”

WiFi router with uncapped data

PSAB 4 PLANT

PSAB 4.1 TELEPHONE

The contractor shall provide the Engineer with the cellphone in accordance with PSAB 2.1.

PSAB 5 CONSTRUCTION

PSAB 5.1 NAMEBOARDS

Replace the contents of this Clause with the following:

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

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

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

PSAB 5.4 TELEPHONE

Delete the entire contents of this Clause.

PSAB 5.5 SURVEY ASSISTANTS

A survey assistant will be required from time to time to assist the Engineer's Representative. The Contractor shall include the cost in his rates.

PSAB 8 MEASUREMENT AND PAYMENT

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

PSC SITE CLEARANCE

PSC 3 MATERIALS

PSC 3.1 DISPOSAL OF MATERIAL

Delete the first two sentences of this clause and replace with:

“Debris arising from clearing and grubbing operations or from the demolition of structures on site shall be removed by the Contractor and disposed of at the St Francis tip site or any other alternate approved tip site.

The rates tendered for the various items under this section shall further cover the cost of loading, transporting and disposing of material at the approved tip site as well as for any fees payable.”

PSC 5 CONSTRUCTION

PSC 5.3 CLEARING

Add the following after subclause f):

“g) The clearing, breaking up, removal and spoiling of all concrete, brick-paved or bitumen surfaced slabs, walkways and roadways as well as any obstructions, concrete edging, slabs, playground equipment, bollards and other unwanted debris within the road verges and park areas.”

PSC 5.5 RECLEARING OF VEGETATION

Add the following:

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

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.1 BASIC PRINCIPLES

Add the following:

"The thickness layer that will unavoidably be stripped during clearing of vegetation will be taken as 100mm.

This implies that levels used in earthworks quantity calculations shall be 100mm lower than the original levels excluding stripping of topsoil to stockpile, where applicable.”

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

PSC 8.2 PAYMENT

PSC 8.2.1 Clear and grub

Replace the first line with the following:

"The areas designated by the Engineer to be cleared and grubbed will be measured in square metre or to the nearest square metre or,"

Delete "(except where 8.2.9 is applicable)" in the seventh line of this Clause.

Add the following:

"The tendered rate shall also cover the cost of loading, transporting and disposing of all rubble, spoil and other unwanted debris encountered in the parks, road reserves or along service routes, irrespective of distance. (Refer also PSC 8.1)"

PSC 8.2.9 Transport material and debris to unspecified sites and dump

Delete this subclause.

Notwithstanding the fact that a disposal site will not be designated by the Engineer, the transportation of all material and debris generated by any clearing and grubbing operations, will not be measured for payment."

PSD EARTHWORKS

PSD 2 INTERPRETATIONS

PSD 2.1 SUPPORTING SPECIFICATIONS

Replace Clause 2.1.2 with the following:

"PSD 2.1.2: Any of the other SANS 1200 Specifications or Particular Specifications may form part of the Contract Documents."

PSD 2.3 DEFINITIONS

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

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

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

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

Replace the definition for "stockpile" with the following:

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

Add the following definitions:

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

Fill: An embankment or terrace constructed of material obtained from excavations or borrow pits.

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

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

PSD 3 MATERIALS

PSD 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

PSD 3.1.1 Method of Classifying

Add the following:

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

The Contractor shall immediately inform the Engineer if and when the nature of the material being excavated changes to such an extent that a new classification is warranted for further

excavation. Failure on the part of the Contractor to advise the Engineer in good time shall entitle the Engineer to reclassify, at his discretion, such excavated material."

PSD 3.1.2 Classes of excavation

Notwithstanding the provisions of this subclause no distinction will be made between soft and intermediate excavation. All excavation, other than in hard rock and boulder excavation, shall for measurement and payment purposes be classified as soft excavation.

PSD 3.2.1 Material suitable for embankments and terraces

Add the following to paragraph (b):

Provided sufficient fines are mixed with the rock to ensure a dense compacted mass can be achieved.

PSD 3.2.3 Material Suitable for Backfill or Fill against Structures

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

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

(a) The material shall not contain an excessive number of stones retained on a 50 mm sieve; and

(b) The material shall not contain large clay lumps that do not break up under the action of the compaction equipment; and

The liquid limit of the material shall not exceed 40, neither shall the PI exceed 18.

The minimum compaction shall be 93% of modified AASHTO maximum density."

PSD 3.3 SELECTION

PSD 3.3.1 General

Replace the second paragraph with the following:

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

PSD 3.3.2 Backfilling and embankments

With reference to the last line of this subclause the material to be used for backfill shall be either 15MPa/19 concrete or material complying with 3.2.2 compacted in 150mm layers to 90% of modified AASHTO maximum density, as ordered on site.

"PSD 3.3.3* Selection in Excavations and Borrow Pits

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

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

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

PSD 4 PLANT

PSD 4.4 DETECTORS

Replace the contents of Clause 4.4 with the following:

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

PSD 5 CONSTRUCTION

PSD 5.1 PRECAUTIONS

PSD 5.1.1 Safety

PSD 5.1.1.1 Barricading and lighting

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

PSD 5.1.1.2 Safeguarding of excavations

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

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

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

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

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

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

PSD 5.1.1.3 Explosives

Replace the contents of this subclause with the following:

“No overbreak allowance shall apply to this Contract.

The Contractor will generally be permitted to use explosives for breaking up hard material during excavations, for demolishing existing structures, and for other purposes where explosives are normally required, subject to the following conditions:

The Engineer may prohibit the use of explosives in cases where, in his opinion, the risk of injury to persons or damage to property or to adjoining structures is too high. Such action by the Engineer does not entitle the Contractor to additional payment for having to resort to less economical methods of construction.

The Engineer's prior written approval shall be obtained for each and every blasting operation. This approval may be withheld if the Contractor does not use explosives responsibly and carefully.

The Contractor shall comply fully with the requirements of the Explosives Act, Act 83 of 1997 and all other legislation and regulations as may be applicable to blasting and the use of explosives.

Before blasting is undertaken, the Contractor shall satisfy the Engineer that he has established whether or not the insurers concerned require pre- and post-blasting inspections of buildings and structures within a certain radius of the proposed blasting.

Should such inspections be required, the Contractor shall, together with the Engineer and the insurer, examine and measure the buildings, houses or structures in the vicinity of the proposed blasting site and establish and record, together with the owner, lessee or occupier, the extent of any existing cracking or damage before the commencement of blasting operations.

When there is a possibility of damage to power and telephone lines or any other services or property, the Contractor shall adapt his method of blasting and the size of the charges and shall use adequate protective measures (e.g. cover-blasting, to reduce the risk of damage.

All accidents, injury to persons and animals and damage to property shall be reported to the Engineer in detail and in writing as soon as is practicable.

The Engineer shall be given 24 hours' notice by the Contractor before each blasting operation is carried out.

When blasting to specified profiles, the Contractor shall so arrange the holes and charges that the resulting exposed surfaces are as sound as the nature of the material permits. The Contractor shall make good, at its own expense, any additional excavation necessitated by the shattering of rock in excess of any overbreak allowances specified in the Scope of Works or given on any drawing.

Notwithstanding the Contractor's compliance with the above provisions, the Contractor shall remain liable for any injury to persons and animals and loss of or damage to property occurring as a result of blasting operations."

PSD 5.1.2 Existing services

PSD 5.1.2.2 Detection, location and exposure

Replace the contents of Clause 5.1.2.2 with the following:

"The exposure by the Contractor of underground services, as required in terms of Clause 5.4 of SANS 1200 A and PSA 5.4 shall be carried out by careful hand excavation at such positions and to such dimensions as are agreed to by the Engineer.

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

(a) In roadways: 95% Mod AASHTO density; and

(b) In all other areas: 93% Mod AASHTO density.

Where hand excavations to expose underground services have to be carried out in roadways, the Contractor shall reinstate the road layerworks in accordance with the provisions of the Contract or as directed.

Payment in respect of the exposing of the services by means of hand excavation as described above shall be deemed to be covered by the rates tendered under items PSA 8.8.4(c)."

Payment in respect of the reinstatement of layerworks in road ways will be made in accordance with PSDB 8.3.6.1 and subclause 8.3.6.1 of SANS 1200 DB."

PSD 5.1.2.3 Protection of cables

Replace Clause 5.1.2.3 with the following:

"5.1.2.3 Protection during Construction

Further to the requirements of PSA 5.4.2 and Subclause 5.4.2 of SANS 1200 A, major excavating equipment and other Plant shall not be operated dangerously close to Known Services. Where necessary, excavation in close proximity to Known Services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional payment will apply to such more difficult work.

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

PSD 5.1.2.4 Negligence

The Contractor shall repair any service damaged. Where the damage is the result of the Contractor's negligence he shall bear all costs of the repairs undertaken by the owner, as well as the costs of associated damages."

PSD 5.1.6 Road traffic control

Delete the contents of Clause 5.1.6 and replace with the following:

"The provisions of PSA 5.10 shall apply as applicable. Where the work affects the operation or safety of public road traffic, vehicular and/or pedestrians in addition, to complying with the requirements of 5.1.1.1, the Contractor shall provide, erect and maintain traffic signs, personnel and equipment that conform to the requirements, layout and guidelines of the "South African Road Traffic Signs Manual", as well as the Site Manual entitled "Safety at Roadworks in Urban Areas" as published by the Department of Transport, in number and in layout, as shown in these manuals.

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

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

PSD 5.2 METHODS AND PROCEDURES

PSD 5.2.1 Site preparation

PSD 5.2.1.2 Conservation of topsoil

Add the following:

“Topsoil ordered to be stripped and conserved for later use shall be stockpiled in a manageable heap where designated by the Engineer. The material together with such vegetation and small roots as may occur within the specified depth shall be stripped, loaded, transported to stockpile within a freehaul distance of 0,5 km, maintained and wetted (dust control) for the full duration of the Contract or until use.”

PSD 5.2.2 Excavation

PSD 5.2.2.1 Excavation for General Earthworks and for Structures

Add the following to paragraph (b):

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

Replace the first sentence of paragraph (e) with the following:

"Where excavations have been carried below the authorised levels, the Contractor shall backfill such excavations to the correct level with approved gravel material compacted to 98% of modified AASHTO density or to the density of the surrounding material, whichever is the higher density.

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

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

PSD 5.2.2.3 Disposal

Replace the second sentence with the following:

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

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

No direct payment will be made for locating and making arrangements for suitable spoil sites and for the spoiling and haul of material at and to such sites. Payment will be deemed to be covered by the various rates tendered and paid.”

PSD 5.2.2.4* Selection and Stockpiling

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

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

When required, or when ordered by the Engineer, material shall be temporary stockpiled at sites indicated by the Engineer for later use. The additional costs of stockpiling material shall be paid to the Contractor in accordance with the provisions of Sub-clause PSD 8.3.14.

PSD 5.2.3 Placing and Compaction

PSD 5.2.3.1 Embankments

Replace the first sentence of the sixth paragraph with the following:

"Each layer shall be compacted at OMC to a density as specified and in the case of cohesive soil and 100% of modified AASHTO maximum density in the case of non-cohesive soil."

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

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

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

"PSD 5.2.3.4 Backfilling over-excavation and overbreak

The material to be used shall comply with 3.2.1, except that the maximum particle size shall not exceed ²/3 of the thickness of the layer being placed, and shall be compacted to at least 95% of modified AASHTO maximum density.

PSD 5.2.4.3 Grass and other vegetation

Add the following:

"Grass sods shall be fine kweek (Cynodon Dactylon) as specified by the Engineer.

The grass sods shall be nursery grown, cut, delivered and laid within 36 hours from harvesting. It shall be free of weeds and disease and contain a minimum soil thickness of at least 30 mm.

The area to be harvested shall be well watered prior to harvesting and handled with extreme care to retain the maximum amount of moisture and soil within the roots. The contractor shall place and plant the sods on the areas indicated by the Engineer. Prior to the placement, the area to receive sods shall be fertilized by applying 40g/m² of super phosphate fertiliser and thereafter be well watered.

Sods shall be fitted closely together and any hollows shall be filled with topsoil to produce an even and smooth surface. During and directly after the laying the sods, the sods shall be well watered and rolled to obtain a level and even surface."

PSD 5.2.5 Transport for Earthworks

Replace the entire contents of Sub-clause 5.2.5 with the following:

"The transport and haul of all materials, as well as material imported from commercial sources or borrow pits selected by the Contractor, irrespective of the distance and source, shall be deemed to be freehaul, the cost of which shall be included in the Contractor's tendered rates and prices for the excavation of the materials.

No separate compensation shall apply for the transportation of excavated materials."

PSD 6 TOLERANCES

PSD 6.1 POSITIONS, DIMENSIONS, LEVELS, ETC.

Add the following:

“PSD 6.1(c) Bulk earthworks

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

PSD 7 TESTING

PSD 7.2 TAKING AND TESTING OF SAMPLES

Replace the contents of this subclause with the following:

"The Contractor shall arrange with the approved independent laboratory engaged by the Contractor in terms of clause C3.4.9 of the Scope of Works, to carry out sufficient tests on a regular basis as agreed between it and the Engineer to determine whether the degree of compaction, and, where applicable, the quality of materials used, comply with the Specifications and shall submit the results of these tests to the Engineer in a form approved by him.

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

PSD 8 MEASUREMENT AND PAYMENT

PSD 8.3 SCHEDULED ITEMS

PSD 8.3.1 Site Preparation

Replace Clauses 8.3.1.1 and 8.3.1.2 with the following:

"Where Site preparation such as clearing, grubbing, the removal of large trees or the removal and stockpiling of topsoil or surface obstructions are required, the provisions and scheduled items of SANS 1200 C shall apply."PSD 8.3.6

Overhaul

Delete Sub-clause 8.3.6.

No overhaul will be paid on material for the purposes of this Contract and all costs for transporting material shall be included in the applicable tendered rates and amounts.

PSDA EARTHWORKS (SMALL WORKS)

PSDA 3 MATERIALS

PSDA 3.1 Classification For Excavation Purposes

Delete SANS 1200 D Clause 3.1 and replace with the following:

PSDA 3.1.1 Method of Classifying

The Contractor may use any method he chooses to excavate any class of material but his chosen method of excavation shall not determine the classification of the excavation. The Engineer or his Representative will decide on the classification of materials. In the first instance classification will be based on inspection of the material to be excavated and on the criteria given in PSD 3.1.2(a) and (b).

PSDA 3.1.2 Classes of Excavation

All materials encountered in any excavation for any purpose including restricted excavation will be classified as follows:

(a) Hard rock excavation

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

This classification includes materials such as:

solid unfractured rock occurring in bulk

solid ledges thicker than 200mm

igneous rock intrusions

cemented sedimentary rocks.

(b) Soft Excavation

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

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

PSDA 5 CONSTRUCTION

PSDA 5.1. Precautions

PSDA 5.1.1.2 Safeguarding of excavations

Safeguarding of excavations will be the contractors full responsibility.

PSDA 5.1.1.3 Explosives

No blasting will be allowed

PSDA 5.1.2.4 Negligence

The applicable requirements of subclause 5.4 of SANS 1200A shall apply.

PSDA 5.1.8 Road traffic control

Traffic signs, barriers and flagmen will be required and shall be installed / placed as required. The requirements of subclause PSA 5.11* will also apply.

PSD 5.2.6.2 Overhaul

Delete the contents of this clause. For the purpose of this contract, all haul shall be deemed to be freehaul, and the contractor is to include the cost of haul / transport in the relevant tendered rates.

PSGA CONCRETE (SMALL WORKS)

PSGA 1 SCOPE

Add the following:

“This specification shall also cover the construction of the concrete walkways, traffic circles and concrete slabs.”

PSGA 3 MATERIALS

PSGA 3.2 CEMENT

PSGA 3.2.1 Applicable Specifications

Replace the contents of this subclause with the following:

“Notwithstanding the contents of this Clause, where reference is made in this specification or the standard specifications to any cement specification, it shall be replaced with the following specification, SANS EN 197-1-Cement-Part 1: Composition, specifications and conformity criteria for common cements.

On this Contract cement grade CEM I 42, 5 shall be used.”

PSGA 3.2.2 Storage of cement

Add the following:

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

“PSGA 3.8* Curing compound

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

“PSGA 3.9* STAINLESS STEEL

The following grades of stainless steel shall be used:

316L for welded applications,

316 for not-welded applications.”

“PSGA 3.10* MATERIALS FOR BUILDING WORK

PSGA 3.10.1 Cement

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

PSGA 3.10.2 Sand

Sand for mortar shall comply with SANS 1090.

PSGA 3.10.3 Bricks

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

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

All bricks shall comply with SANS 227 and shall be NFX burnt clay masonry units free of stones, cracks and othcompafects. The bricks shall be obtained from an approved manufacturer and samples of the bricks shall be submitted to the Engineer for approval.

PSG 3.10.4 Mortar

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

Cement: 50 kg

Lime: 0 – 40L

Sand: 130L (measured loose and damp)"

PSGA 4 PLANT

"PSG 4.4.2 Finish

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

PSGA 5 CONSTRUCTION

PSGA 5.4 CONCRETE

PSGA 5.4.1.5 Strength Concrete

Add the following:

"The Contractor shall when requesting approval of a mix design, submit the constituent proportions of the proposed mix together with the results of compressive strength tests carried out."

PSGA 5.4.2 Batching

Notwithstanding the requirements of this Clause, the method of batching shall be subject to approval.

PSGA 5.4.7 Curing and protection

Notwithstanding the provisions of this subclause, all cast in situ concrete shall, except where otherwise authorised, be cured in accordance with the requirements of subclause (c) using curing compound of the type specified in PSGA 3.8.

PSGA 5.4.8 Concrete surfaces

All unformed concrete surfaces shall, except where otherwise ordered, be given a wood float finish.

"PSGA 5.5* CONSTRUCTION OF CONCRETE SURFACING

The surfaces on which concrete are to be cast shall, after being trimmed and compacted, be covered with a sprayed bitumen emulsion primer or polyethylene sheeting of nominal thickness 0, 25 mm, all joints in the sheeting being overlapped at least 150mm. Care shall be taken not to

damage the bitumen layer or the polyethylene sheeting (as relevant) during the placing of reinforcement and during concreting.

Joints in concrete shall be sealed and shall be constructed as shown on the drawings. The paving shall be cast in alternate panels and, after the concrete in the alternate panels has set, the exposed end surfaces shall be painted with bituminous emulsion before the intermediate slabs are cast.

The exposed surfaces of the concrete shall be given a broom textured finish and shall be cured as specified in 5.4.7 and PSGA 5.4.7."

"PSGA 5.6* BRICKWORK

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

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

Mortar joints shall not exceed 10 mm in thickness and shall be pointed. The mortar used shall be mixed in small quantities and used within 2 hours of mixing. Bricks shall further be clay fire bricks to SANS 227."

PSGA 6 TOLERANCES

PSGA 6.4 PERMISSIBLE DEVIATIONS

Add the following:

"Notwithstanding the tolerances specified for the construction of the embankment, the following tolerances shall apply to the construction of the apron slab:

Position in plan	:	Within 100mm of its designated position, provided that over any length of 30m, the deviation from a straight line joining the extremities of the 30m section, shall not exceed 25mm.
Thickness	:	Not less than 95mm.
Width	:	± 25mm provided the requirements with respect to alignment are met.
Level	:	± 10mm provided the requirement with respect to thickness is met and that the distance between the surface and a 3m straight edge placed on the apron slab is nowhere more than 5mm.

PSGA 7 TESTS

PSGA 7.1.2 Frequency of sampling

Notwithstanding the requirements of this subclause, the Contractor shall take note that he is responsible for taking an adequate number of tests to ensure that the concrete being used complies with the specification. The Engineer will only carry out such control testing as he may require.

PSGA 8 MEASUREMENT AND PAYMENT

PSGA 8.1.2 Reinforcement

Replace the contents of this clause with the following:

"The unit of measurement for steel bars shall be the ton of reinforcement in place in accordance with the drawings or as authorised by the Engineer.

The unit of measurement for welded steel fabric shall be the square metre of fabric reinforcement in place and the quantity shall be calculated from the nett area covered by the mesh, excluding laps.

Clips, ties, separators, stools and other steel used for positioning reinforcement shall not be measured unless shown on the bending schedules.

The rate tendered shall cover the cost of the supply, delivery, cutting, bending, placing and fixing of the steel reinforcement, including all tying wire, stools, supports and waste."

PSGA 8.1.3 Concrete

Delete all references to "intermediate excavation" throughout this subclause.

Notwithstanding the provisions of subclause 8.1.3.1 (b) and (d) concrete required to replace overbreak or over-excavation will not be measured for payment (refer PSD 3.2.2, PSD 5.1.1.3 and PSD 5.2.2.1).

Add after “testing” in the second line of subclause 8.1.3.3(a) “including transport to an approved laboratory.”

PSGA 8.4.4 Unformed surface finishes

Add the following :

“(c) Broom textured finishUnit : m²”

“PSGA 8.4.5* Concrete surfaces (Surface area to be paved, thickness and grade of concrete specified)

Unit: m²

The unit of measurement shall be the plan area of concrete surfacing to be placed, irrespective of shape, cross-sectional slope or longitudinal grade.

The rate tendered shall cover the cost of all labour, plant, materials, formwork and incidentals required to construct the surfacing complete as detailed on the drawings, including for the rounding the edges, trimming and compaction of the layer to receive concrete, in the positions

and to the extent shown on the drawings, or directed on site, including sprayed bitumen emulsion primer or polyethylene sheeting, formwork, mesh reinforcement, where applicable, and for texturing. (Expansion joint will be measured elsewhere).

Note :

The testing of the surfacing will be carried out in terms of the applicable requirements of Clause 7 of SANS 1200 MK and PSMK 7 and payment for testing will be effected in terms of PSMK 8.2.3.

The acceptance criteria stated in PSMK 8.2.1 shall also apply to concrete surfacing placed in terms of this specification.

No additional payment will be made for forming voids or boxing out holes.

“PSGA 8.6* Construct raised pedestrian crossing complete (Table Top) Unit: m

The unit of measurement shall be the linear meter of crossing constructed measured from one end to the other across the roadway. It should be noted that the average length of crossing is approximately 14 500 mm.

The rate tendered shall cover the cost of all labour, plant, materials, formwork and incidentals required to saw cut the existing bituminous surfacing, to excavate into the existing road surface and layerworks, and to construct the crossing complete as detailed on the drawings, including mortar layer under paving, for trimming and compaction of the layer to receive concrete, in the positions and to the extent shown on the drawings or directed on site, including sprayed bitumen emulsion primer or polyethylene sheeting, formwork, concrete, and for texturing and colouring where applicable as shown. Road signs, road mark painting, kerbing and paving will be measured elsewhere.

PSM ROADS (GENERAL)

PSM 6 TOLERANCES

"PSM 6.4* DIMENSION AND LEVEL CONTROL

The Contractor shall submit to the Engineer a record of the surface levels of the section of layer under consideration, prior to requesting inspection and acceptance control testing.

The levels shall be taken at chainage intervals and co-ordinates that coincide with those given on the drawings.

PSM 7 TESTING

PSM 7.1 GENERAL

Notwithstanding the provisions of this Clause, the Contractor shall note that the random sampling method of TMH 5 for the spotting of positions for field density testing will not necessarily be applied by the Engineer.

Testing shall be carried out where in his opinion the density is suspect.

The Contractor shall further present the full width of the layer between the stated linear stake values for acceptance. Only in exceptional cases may partial widths be presented.

PSM 7.2 PROCESS CONTROL

Add the following:

“Process control to be carried out by the Contractor shall be executed by an independent testing laboratory approved by the Engineer.”

PSM 7.3 ROUTINE INSPECTION AND TESTING

Add the following to Clause 7.3.1:

"All requests for acceptance control testing shall be submitted in writing to the Engineer. Each request shall clearly specify the exact location of the section and the description and type of the layer, and shall be accompanied by the dimension and level control data for the section under consideration (refer PSM 6.4), as well as the results of the Contractor's process control testing (refer 7.2).

On receipt of the aforementioned the Engineer will undertake, or arrange as the case may be, for the necessary inspection and acceptance control tests to be carried out to satisfy himself that the layer complies with the specification.

Testing will be carried out as expeditiously as possible and the results of tests made available within 48 hours from the time the request was made, plus the normal time required to do the test.

The written approval of the submitted section of a layer shall be obtained from the Engineer before the Contractor may proceed with the placing of material for the following layer. The Contractor shall also, before proceeding with the placing of the material for the following layer, make good any test holes left in the layer using material complying with the specification for that layer and compacting it to the specified density applicable to for that layer. Concrete shall not be used."

PSM 8 MEASUREMENT AND PAYMENT

Add the following:

“Should the layer submitted for acceptance control testing fail to comply with the specification, the Contractor shall, in the case where the tests arranged for by the Engineer were carried out by a designated laboratory (refer PSA 7.2), bear the invoiced cost of the tests. Conversely, should it be found that the layer complies with the specification, the cost of the acceptance control tests will be borne by the Employer. The cost of refilling and compacting the test holes shall be covered by the rate tendered for the construction of that layer.”

PSMJ SEGMENTED PAVING

PSMJ 5 CONSTRUCTION

PSMJ 5.1 PREPARATION

Notwithstanding the provisions of this Clause, the construction of the earthworks and controlled layers shall be completed in accordance with the applicable requirements of SANS 1200 DM and SANS 1200 ME, and any amendments thereto, as well as the details shown on the drawings.

PSMJ 5.4 LAYING OF UNITS

Notwithstanding the provisions of this Clause, filler units shall be cut such that they are close fitting. No chopping or breaking of the units will be permitted.

PSMJ 5.5 FILLING GAPS IN UNIT PATTERN

Delete the contents of this Clause. Clause 5.4 and PSMJ 5.4 shall apply.

PSMJ 8 MEASUREMENT AND PAYMENT

PSMJ 8.2.2 Construction of Paving Complete

Delete the word "unit" in the fourth sentence of this Clause, and replace with “units / pavers to be supplied by Client”, at the end of the clause.

Add the following:

“Jointing sand applied to concrete interlocking pavers shall include a 2.5% cement stabilising agent and the rate tendered shall include all costs associated with the addition of this stabilising agent.”

PSMJ 8.2.3 Cutting units to fit edge restraints

Delete the word "raking" in the first sentence of this Clause.

Add the following:

"The cutting of units to suit radii > 1,0m shall be classified as straight cutting."

PSMJ 8.2.6 Laying pavers on existing concrete slab bedded on stabilised grit screed …….m2

Add the following new clause:

"Pavers to be laid on the existing concrete slab will be bedded on a 20 mm stabilised (1:10) cement grit (smaller than 5mm) screed.

If additional screed is required, over and above the 20mm already allowed for in order to achieve the desired longitudinal grades, then this additional screed will be paid for as an extra over item "

PSLB BEDDING (PIPES) (applicable to SABS 1200 LB - 1983)

PSLB 1 INTERPRETATIONS

PSLB 1.1 Definitions (SUBCLAUSE 2.3)

Main Fill

Delete "150 mm" in second line and substitute "300 mm".

PSLB 2 MATERIALS (subclause 3)

PSLB 2.1 Selected Granular Material (SUBCLAUSE 3.1)

Delete the Sub-Clause and substitute:

Selected Granular Material. Selected granular material shall be a granular material with a PI not exceeding 10, grading modulus not less than 1,2, free from lumps or stones retained on a 19 mm sieve and having a compatibility factor (as determined by the test given in Section LB of Part 3 of SABS 0120) not exceeding 0,4.

PSLB 2.2 Bedding (SUBCLAUSE 3.3)

Add to the Sub-Clause:

All pipes laid under this Contract will be considered as being rigid pipes and the bedding shall be of Class A or C (Drawing LB-1) as applicable and scheduled except that joint holes (pockets) shall be provided in the bedding, as per Drawing LB-2, at each pipe joint and coupling. No sharp-edged stones shall be allowed to come into contact with either the pipes or the couplings (joints). No extra payment will be made for forming joint holes (pockets).

PSLB 2.3 Selection (subclause 3.4)

PSLB 2.4.1 Suitable Material Available from Trench Excavation (SUBCLAUSE 3.4.1)

Add to the Sub-Clause:

Notwithstanding the foregoing, if, in the opinion of the Engineer bedding material can be produced from the excavated material and if ordered by the Engineer, the Contractor shall screen the excavated material in order to produce material suitable for bedding.

PSLB 3 CONSTRUCTION (SUBCLAUSE 5)

PSLB 3.1 General (SUBCLAUSE 5.1)

Add to the Sub-Clause:

The pipeline is to be laid on the class C bedding except where indicated otherwise in the Schedule of Quantities.

PSLB 3.2 Placing and Compacting Rigid Pipes (SUBCLAUSE 5.2)

PSLB 3.2.1 Class 'A' Bedding (SUBCLAUSE 5.2.1)

Delete the first sentence of 5.2.1(a) and substitute the following:

The pipes shall be supported on a continuous cradle of grade 20/19 concrete.

PSLB 3.2.2 Class B and C Beddings (SUBCLAUSE 5.2.2)

Delete the third, fourth and portion of the fifth lines up to the words "as relevant" and substitute the following:

The pipes shall be bedded on a continuous mound of selected granular material in the manner shown on Dwg LB-3(b) or (c) as relevant. The remainder of the bedding shall be placed in

layers under the overhang and up the sides of the pipe, each layer being compacted until levels are reached as shown on Dwg LB-1(a) or (c) as relevant.

PSLB 3.2.3 Stone Bedding (SUBCLAUSE 5.2.5)

Add new Sub-Clause:

Where ordered by the Engineer, special drains consisting of a 200mm thickness (See PSDB 5.1.2.2) of 6 mm to 20 mm graded stone extending the full width of the trench shall be provided below the bedding to the pipes. The excavation for these drains will be measured in cubic metres at the contract rate applying to unsuitable excavation below the bottom of the trench. The stone filling will be paid for per cubic metre. All measurements in this connection will be to a width equal to the base widths and depths ordered.

PSLB 3.4 Selected Fill Blanket (SUBCLAUSE 5.3 (B))

Delete "200 mm" from title.

PSLB 3.5 Concrete Casing to Pipes (subclause 5.4)

Add to the Sub-Clause:

Where concrete casing is ordered by the Engineer it is to be of grade 20/19 concrete with a minimum thickness of 150 mm above the top of the pipe.

PSLB 4 TOLERANCES (subclause 6)

PSLB 4.1 Moisture Content and Density (subclause 6.1)

The permissible deviations applicable are to be those for Degree of Accuracy II class of work.

PSLB 5 MEASUREMENT AND PAYMENT (subclause 8)

PSLB 5.1 Volume of Bedding Materials (SUBCLAUSE 8.1.3)

Add to the Sub-Clause:

(c) The volume of bedding material shall be measured net i.e. the volume of the pipe is to be deducted.

PSLB 5.2 Freehaul (SUBCLAUSE 8.1.6)

Delete the Sub-Clause and substitute the following:

Except as provided for in Sub-Clause 8.2.2.2 and 8.2.2.3 the freehaul distance within which the Contractor will be required to move material without separate compensation shall be as per Sub-Clause 5.2.6.1 of SABS 1200 DA as amended or per Sub-Clause 5.2.5.1 of SABS 1200 D as amended, whichever is applicable.

PSLB 5.3 Provision of Bedding from Trench Excavation (SUBCLAUSE 8.2.1)

Delete the Sub-Clause and substitute:

No payment will be made for the provision of bedding materials which complies with the specification where such material is available from trench excavations within 15 m of the point where it is required.

Provide bedding without the need for screening:

(a) Selected granular material Unit: m3

(b) Selected fill material Unit: m3

The rates shall cover the cost of acquiring, from any point as may be selected by the Engineers beyond 15 m but within 1,0 km, bedding that complies with the relevant requirements of the specification, or which after screening will comply with the specification, of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, of making good any backfill deficiency from points where backfill has been acquired, and of disposing of displaced material within the freehaul material.

The freehaul distance for transporting bedding materials and for disposal of surplus material shall be 1,0 km.

PSLB 5.4 Screening Material for Bedding (SUBCLAUSE 8.2.1)

Add the following Sub-Clause:

Screening material for bedding:

(c) Selected granular material Unit: m3

(d) Selected fill material Unit: m3

The rates for screening shall cover the extra-over cost for screening (where so ordered by the Engineer) material obtained and paid for in accordance with PSL 8.2.1 (a) or (b) above in order to obtain bedding material as specified.

PSLB 5.5 Encasing of Pipes in Concrete (SUBCLAUSE 8.2.4)

Delete the words "4 m centres" and substitute along the length of the pipeline as shown on the drawings or scheduled, or, if instructed by the Engineer, on either side of collars, couplings, joints, etc."

PSLB 5.6 Overhaul of Material for Bedding Cradle and Selected Fill Blanket (SUBCLAUSE 8.2.5)

Delete the Sub-Clause and substitute the following:

(a) Long overhaul: beyond the freehaul distance

(provisional) m3 km

This item will be applicable only to such bedding from the trench and other necessary excavation as is hauled for distances beyond the freehaul distance (see Sub-Clause 8.2.1) with the written approval of the Engineer.

The volume in both cases will be computed as specified in Sub-Clause 8.1.3 while in the case of Long Overhaul the distance shall be the distance measured by the shortest practicable route in one direction only measured to the nearest 0,1 km beyond the freehaul distance. The rate shall cover the cost of transporting, and of loading and disposing of material displaced by such bedding within the freehaul distance.

PSL MEDIUM-PRESSURE PIPELINES (Applicable to SABS 1200L - 1983)

PSL1 MATERIALS

PSL1.1 AC Pipes and Specials (Subclause 3.2)

In the first and second lines delete the words "SABS 286 for COD pipes or SABS 946 for CID pipes" and substitute "SABS 1223".

In the second line delete "200 mm" and substitute "150 mm"

Add to the Subclause

Fittings for AC pipes shall be cast iron where these are listed in pipe manufacturer's brochures and catalogues and which are still available. Should the Engineer be satisfied that CI fittings are not available, he may agree that steel fittings, suitably protected against corrosion, be substituted in lieu thereof."

PSL1.2 Steel Pipes, Fittings and Specials (Subclause 3.4)

PSL1.2.1 General (Subclause 3.4.1)

"All steel pipes, fittings and specials shall be to the dimensions and details shown on the drawings or scheduled."

PSL1.2.2 Steel Pipes of NB up to 150 mm (Subclause 3.4.2)

Where pipes and fittings are scheduled, or shown on the drawings, which are neither "screwed" nor of "medium class" (or neither of these) then the requirements for the pipes and fittings so scheduled shall take precedence.

Long runs of pipework may comprise pipes supplied in random lengths subject to the total length of the run being that specified or scheduled. The range of random lengths to be supplied shall be between 4 m and 7 m.

Exact length of pipe shall be supplied where individual lengths of 7 m or less are scheduled or called for on the drawings.

Tests certificates for the pipework are to be provided in terms of Subclauses 3.7(a) and 3.7(b) where so called for by the Engineer.

PSL1.2.3 Pipes of nominal bore over 150 mm NB (Subclause 3.4.3)

Steel pipes of a nominal bore over 150 mm shall comply with the applicable requirements of SABS719 appropriate to the nominal size, grade of steel, and nominal wall thickness scheduled in the Bill of Quantities or shown on the Drawings. In addition the following shall apply:

Each pipe shall be hydraulically tested in accordance with SABS 719 Clause 6.3 copies of factory test certification shall be submitted to the Engineer.

Pipes shall be supplied in exact lengths in accordance with SABS 719 Clause 5.1.1.3 (b) subject to a minimum length of 9.144 m.

Unless otherwise scheduled pipes with a nominal size less than 600 m shall be plain ended suitable for couplings. The ends of pipes with a nominal size of 600 mm or larger shall be prepared for field welding.

The height of the inner weld reinforcement shall not exceed 1 m.

Lining and coating of pipes shall be in accordance with Clause 3.9 of SABS 1200 L as amended by this project specification.

PSL1.2.4 Fitting and Specials (Pipes over 150 NB) (Subclause 3.4.4)

Delete the Subclause and substitute:

3.4.4.1 General All fittings and specials shall be manufactured from straight pipe complying with these specifications and having satisfactorily passed the stipulated hydraulic pressure tests.

Fittings and specials shall be manufactured and tested in accordance with the specification for straight pipe and additionally with Section 4 of BS 534. The nominal dimensions of each fitting and special required are itemised in the Bill of Quantities and 'exact length' tolerances shall be adhered to.

Bends shall generally be of the gusseted type having dimensions as given by Table 4 of BS 534 except where specified to the contrary in the Bill of Quantities.

The manufacturer shall be responsible for providing strengthening webs, crotch plates, gussets, etc. necessary to prevent excessive deflection or deformation of fittings and specials when subjected to hydraulic tests.

3.4.4.2 Thrust and Puddle Collars Thrust collars used as pipe anchorages shall be undrilled and of the same dimensions as corresponding flanges. The collar shall be welded to the pipe with sufficient strength to be capable of transmitting a longitudinal force 33% greater than the internal hydraulic pressure to be applied when testing multiplied by the area of the bore and under that condition the stress in the weld metal shall not exceed its yield stress.

Puddle collars not being used as anchorages shall be undrilled and have the same dimensions of corresponding flanges, except that the flange thickness shall be 50% of the standard thickness, subject to a minimum of 10 mm and a maximum of 15 mm.

3.4.4.3 Closure Pipes Closure pipes which will be cut on site to the exact lengths required, shall have the diametrical tolerances specified for the pipe ends applied over the full length of the pipe. Closure pipes shall be supplied in standard lengths.

PSL1.3 Other Types of Pipe (SUBCLAUSE 3.7)

PSL1.3.1 uPVC Pipes (Subclause 3.7.1)

Add to the end of the Subclause “Unless otherwise shown on the drawings or scheduled”.

PSL1.3.2 Polyethylene Pipes (Subclause 3.7.2)

Add to the Subclause: HDPE and LDPE pipes shall be of the classes scheduled. Jointing of pipes shall be by means of welding, by bolting up welded-on flanges or by the use of approved external compression type fittings (Plasson or similar approved) as shown on the Drawings or scheduled.

PSL1.3.3 Concrete Non Pressure Pipes (Subclause 3.7.3)

Add new Subclause : Concrete non-pressure pipes shall conform to SABS 677 for the classes stated in the Bill of Quantities or shown on the drawings pipes with ogee joints, and be in standard lengths of 2,44 m.

PSL1.4 Jointing Materials

PSL1.4.1 Flexible Couplings (Subclause 3.8.2.1)

Delete the Subclause and substitute the following:

Flexible couplings shall conform generally to Clause 15 of BS 534 for slip-on type steel couplings and shall be of approved manufacture. They shall not be provided with a central register, except where shown on the Drawings or scheduled. They shall be capable of being tightened and released without damaging or improperly distorting the rubber seating rings and shall be designed to prevent the rubber rings being blown out under pressure or sucked in under vacuum.

The steel used shall conform to the appropriate British Standard Specification and each coupling is to be capable of withstanding the test pressure applicable to the pipes with which they are to be used without exceeding a stress in the steel of 67% of the yield stress.

PSL1.4.2 Flanges and Accessories (Subclause 3.8.3)

Add to the Subclause:

The sizes and drilling of flanges shall generally comply with Table 1600/3 or Table 1000/3 of SABS 1123 for working pressures of 1 600 and 1 000 kPa respectively, as called for in the Schedule of Quantities. However, higher pressures may be scheduled in which case Table 2500/3 flanges shall be used.

Where low pressure interconnecting pipework for working pressures up to 1 000 kPa is being supplied and installed, the fourth line of the Subclause shall be deemed to read "SABS 1123, table 1000/3 except that"

Flanges cut from steel plate shall be machined flat on the front face, i.e. without a raised joint. No machining need be carried out on the back face provided that face is sufficiently flat to ensure square bedding of the bolt heads and nuts and provided that all weld reinforcement is removed.

Cast or forged flanges shall be machined flat on the front faces and either spot faced at the bolt holes, or fully machined, on the back faces. Spot facing shall be at least 3 mm greater in diameter than the washers to be used, shall be truly parallel to the front face and the distance between the two faces shall be not less than the specified flange thickness.

Flange jointing material, when installed in the completed pipeline, shall be capable of withstanding transient pressures up to the specified field test pressure. Under this condition no damage shall be caused to the jointing materials or leakage occur through the joint. Bolts and nuts shall comply with SABS 135.

PSL1.5 Corrosion Protection (SUBCLAUSE 3.9)

PSL1.6 Valves

Delete the Subclause and substitute:

Valves supplied under this Contract shall comply with the requirements of Particular Specification PC and PCA as applicable.

PSL1.7 Manholes and Surface Boxes

PSL1.7.1 Bricks (Subclause 3.11.1)

Delete the first sentence and substitute Subclause : Bricks for manholes and surface boxes shall be engineering bricks type FBXE45 or better, with a water absorption not exceeding 7% and complying with the applicable requirements of SABS 227.

PSL1.7.2 Manhole Covers (Subclause 3.11.5.1)

Delete the Subclause and substitute:

Manhole covers shall comply with SABS 558 for the types shown on the drawings and/or the Bill of Quantities.

Add new Subclauses.

PSL1.7.3 Sand

Sand used for mortar (general purpose) and for plaster (external) shall comply with the applicable requirements of SABS 1090.

PSL1.7.4 Concrete Works

Concrete work shall comply with the requirements of SANS 2001-CC2.

PSL2 PLANT

Add the following Subclauses.

PSL2.1 Packing (PSL 4.4)

Goods should be suitably packed in such manner as will ensure safe and efficient transport to site, and the Contractor shall include in his prices for whatever packing may be necessary in this respect. Small items particularly liable to damage or loss in transit should be crated. All crates and packing material shall, after use, become the property of the Employer unless distinctly specified otherwise, or if returnable, shall be so at the Contractor's expense.

PSL2.2 Protection of Linings during Transportation (Subclause 4.5)

The ends of every pipe, fitting and special shall be fitted with suitable end closures as a precautionary measure against damage being caused to the lining material. The end closures shall be capable of preventing the ingress of dirt but at the same time allowing air to ventilate through the pipework which they protect. They shall be secured in such manner that they cannot be dislodged or damaged by normal pipe handling operations.

PSL2.3 Marking (SUBCLAUSE 4.6)

Pipes, fittings and special shall be marked as follows :

(a) Each pipe fitting, special, coupling and valve shall bear the Contract Number followed by the Item Number given by the Engineer and a Despatch Number allocated consecutively by the manufacturer.

In addition to :

(b) Closure pipes (trued for diameter throughout their length) shall, in addition to the marking required above, carry two longitudinal brown stripes, 50 mm wide, diametrically opposite to each other and extending the full length of the pipe.

(c) Every bend shall be marked as stated above and, in addition, shall have its deflection angle in degrees and minutes painted on the outer surface.

(d) Packaged items such as nuts and bolts, insertion rings etc shall be marked with a metal label bearing the Contract Number and the Item Number(s) with which they are to be used.

PSL2.4 Advice Notes and Invoices (SUBCLAUSE 4.7)

The Contractor shall submit one copy of every advice note in respect of each individual consignment, quoting the Contract Number, the truck or vehicle number, item numbers and brief description of the articles so consigned. The advice note shall be lodged with the Engineer's Representative on Site at least two days before the arrival of the goods.

PSL2.5 Delivery and Acceptance (SUBCLAUSE 4.8)

The material to be supplied under this Contract shall be consigned and delivered to approved areas adjacent to the pipeline route, or to an approved storage area if not required for immediate use.

PSL3 CONSTRUCTION

PSL3.1 Laying

PSL3.1.1 General (Subclause 5.1.1)

Add to the Subclause:

PSL3.1.2 Acceptance and Storage of Pipework Items

The Contractor will be responsible for clearing the areas required for pipe storage which shall include the removal of rock, stones and all combustible material. He shall also be responsible for maintaining the area in a clean and tidy condition for the duration of the Contract. No separate payment will be made for this operation.

Pipes, fittings, specials and valves, shall be inspected on delivery. Any material found to be damaged shall be returned to the factory for repair or replacement at the cost of the Contractor.

The Contractor will be held fully responsible for the care and safety of all pipes and fittings, etc, on site, and shall bear the cost of all renewals which may be necessary to make good losses, damages or breakages. Furthermore, he shall be fully responsible for handling and re-loading material at the storage areas and for transporting and offloading all such materials at their correct places along the pipeline route.

PSL3.1.3 Distribution of Material

Before commencing pipelaying, the Contractor shall properly distribute pipes, fittings and specials, along the trenches. Valves and couplings shall not be distributed until they are actually required for laying in their designated positions.

PSL3.1.4 Pipelaying Personnel

The laying of all pipework items shall be performed only by qualified persons who are registered by the local authority as artisans in the plumbing, pipefitting or drainlaying trades or who are qualified by reason of having attended and passed the course on pipelaying held by the Civil Engineering Industry Training Board.

PSL3.1.5 Damage (Subclause 5.1.2)

Add to the Subclause:

The Contractor shall be responsible for protecting pipes etc from grass fires at all times. He shall keep grass cut short in the vicinity of all unlaid pipework items.

PSL3.2 Depths and Cover (Subclause 5.1.4)

Add the following new clause.

The Contractor shall ensure that trenches are not flooded by stormwater and that pipes laid in the trench are backfilled as soon as possible after laying, except at joints made with couplings or flanges which must be kept visible until the pipeline has been satisfactorily tested. Welded joints may, after all specified testing has been satisfactorily completed and with prior approval from the Engineer, be backfilled at the same time as backfilling the pipeline.

Should movement of the pipes occur, the Contractor shall remove the pipes from the trench and thoroughly clean and relay the pipes on bedding repaired or replaced as necessary. This work shall be carried out at the Contractor's expense.

PSL4 Jointing Methods (STEEL PIPELINES) - (SUBCLAUSE 5.2)

PSL4.1 Flanged Joints (Subclause 5.2.2)

Add to the Subclause:

Before being brought together, the ends of the pipes, fittings, couplings and all flanges are to be inspected and cleaned to ensure that all parts forming the joint are undamaged and clean.

When jointing flanges after cleaning, approved jointing material, cut properly to size, is to be inserted immediately before bringing the two flanges together. Before closing the joints, the flanges must be parallel to each other, with all bolts inserted in the bolt holes. After the fittings have thus been aligned and well supported, the joint shall be bolted up to a uniform tightness around the periphery.

PSL4.2 Welding (Steel Pipelines of Diameter 600 mm or Greater)

PSL4.2.1 Site Welded Joints (Subclause 5.2.3)

Add to the Subclause:

The pipe ends are to be prepared in accordance with that Standard. Welding shall generally commence at the top of the joint and proceed downwards. In addition to the root weld, at least two further passes shall be made, none of which is to exceed 3 mm in depth.

The Engineer shall have the right to specify that Qualification Tests be carried out for each welder employed on the works. No welder shall be employed who has not passed such tests and for whom a recent pass certificate issued by a competent authority cannot be produced.

After jointing and testing, the protective lining and wrappings are to be rendered continuous with the same materials as applied to the body of the pipe. Holiday detection tests shall be carried out in the field to ensure continuity of lining and wrapping.

PSL4.2.2 Concrete Spigot and Socket Pipelines (Subclause 5.2.4)

Delete the first five lines of the Subclause and substitute:

Where rubber joint sealing gaskets are required as flexible joints in a concrete pipeline, the applicable requirements of SABS 676 (or SABS 677) for the type of joint recommended by the approved manufacturer shall be used for making the joint.

PSL4.2.3 Flexible Coupling Joints (Subclause 5.2.5)

Add new Subclause:

Where ordered, steel flexible couplings are to be of a superior quality, approved type, each comprising one centre collar, two special flanges, two rubber rings and mild steel bolts.

Adaptor couplings shall be of a similar design, but one end shall be flanged to enable connection of plain ended pipes to flanged specials.

Steel couplings shall be assembled strictly in accordance with the manufacturer's instructions.

In the event of the coupling collar having an internal central ring of register, the pipes shall be brought together until both pipe ends are in contact with the register, after which one pipe shall then be drawn back by 6 mm. Where the coupling has no internal register a 6 mm joint gap shall be central within the coupling.

PSL4.2.4 Cut Pipes (Subclause 5.2.6)

Cut pipes may be used where required as closure lengths. The cut ends shall be dressed square and to a smooth even finish which shall not be inferior to that of the ends of uncut pipes. The finished dimensions of ends cut at Site must be within the tolerances applicable to the ends of the particular types of pipe to be laid. The cost of cutting and trimming pipes shall be included in the rates tendered for laying and jointing pipes. The corrosive protection shall be repaired on any cut pipe end.

PSL4.2.5 Setting Valves, Specials and Fittings (SUBCLAUSE 5.3)

Add to the Subclause:

Valves shall be supported on concrete stools, unless otherwise directed by the Engineer. Valve spindle guide brackets and stays where provided shall be secured into position against concrete work and set and carefully adjusted in order to give true vertical alignment of the spindle.

PSL4.2.6 Concrete Casing (SUBCLAUSE 5.4)

In the first and second lines delete "a strength 15 MPa/37,5 mm or such other strength as scheduled" and substitute "concrete grade 20/19".

PSL4.2.7 Anchor/Thrust Blocks and Pedestals (PSL 5.5)

In the fourth line delete "15 MPa/37,5 mm" and substitute "20/19"

PSL4.2.8 Valve and Hydrant Chambers (Subclause 5.6)

PSL4.3 General

Delete the references to drawings L1, L2 and L3 and substitute "the Drawings".

PSL4.4 Brickwork in Chambers and Manholes (SUBCLAUSE 5.8)

Delete the eleventh line and substitute the following:

Mortar for brickwork and plasterwork shall be composed of one part of cement to four parts of sand.

Delete the twelfth and thirteenth lines.

Add to the Subclause:

Plaster is to be applied in one coat not less than 12 mm in thickness.

PSL5 TOLERANCES

PSL5.1 Control Points (SUBCLAUSE 6.2)

In the third line delete "6 100 mm" and substitute "6 50 mm"

PSL5.2 Alignment (Plan and Level) (SUBCLAUSE 6.3)

In the third line delete "6 100 mm or 6 20%" and substitute "6 50 mm or 6 10%". In the fourth line delete "6 20 mm" and substitute "6 10 mm". In the sixth line delete "6 50 mm or 6 10%" and substitute "6 25 mm or 6 5%"

PSL6 TESTING

PSL6.1 TESTS ON WELDED STEEL PIPELINES

PSL6.1.1 Qualification Tests for Welding Procedure (New Subclause 3.4.5.1)

The qualification tests for welding procedure shall be carried out generally in accordance with the requirements of the American Petroleum Institute API 1104. Manufacture shall be established and the quality of the welds so produced shall be determined by carrying out ONE transverse tensile weld test and TWO guided cold bend tests on suitable coupon plates.

The tests are to be carried out either before manufacture of the pipes to be supplied under this contract is commenced or before the manufacture of pipes in excess of a number previously agreed by the Engineer is carried out.

The coupon plates shall be prepared either from plates of the same material as the pipe and welded in a similar manner to that to be used during production, or by cutting suitable specimens from a pipe selected at random by the Engineer from the first production pipes. The coupon plate for the tensile weld test and those for the guided cold bend tests shall be prepared in accordance with the requirements of SABS 719.

The qualification tests shall be considered satisfactory if:

(a) The weld has a joint efficiency greater than 95% of the minimum specified tensile strength of the parent metal and,

(b) the bend test specimens are capable of being bent around a former with a diameter equal to six times the nominal thickness of the plate to an angle of 180 degrees without developing a crack, except at the arises of the specimen, of length or width greater than 3 mm.

Failure to pass the above qualification tests shall result in the rejection of any pipes welded with the procedure used and the preparation of a new qualification of procedure test.

Any changes in the electrode case type used or change of flux used shall require a qualification test before approval of the procedure is granted.

PSL6.2 Standard Hydraulic Pipe Test (SUBCLAUSE 7.3)

PSL6.2.1 Test Pressure and Time of Test (Subclause 7.3.1)

Delete second line and substitute:

“attained the strength specified in terms of Subclause 5.5.”

PSL6.2.2 Delete this Subclause (Subclause 7.3.1.2)

Delete the Subclause and substitute the following:

The field test pressure applied to any section of the pipeline under test, taking differences in elevation along the pipeline into account, shall be such that the pressure at any point along the section under test shall not exceed the appropriate of the values set out in Subclause 7.3.1.4 and that the minimum pressure shall be not less than the design (working) pressure.

The test pressure horizon for the pipeline(s) shall be as shown on the Drawings.

Pipeline Reference Field T.P. Horizon

Permissible Leakage Rates

Delete the title of Subclause and substitute the following:

Permissible Make-up Water

Delete the sixth line and substitute the following:

(a) Asbestos cement pipes and concrete-lined steel pipes:

Add to the Subclause:

(c) Concrete Pipes

0,40 x D x L x $\sqrt{}$ p

Where D = diameter of pipes in millimetres

L = length of test section in kilometres

P = test pressure in megapascals"

PSL7 MEASUREMENT AND PAYMENT

PSL7.1 Supply, Lay & Bed Pipes Complete with Couplings (SUBCLAUSE 8.2)

Delete the fourth and fifth lines and substitute the following:

the handling, inspecting, transporting, forming joint holes, bedding, laying, jointing, cutting, testing and, when relevant, disinfecting of the pipes and the joints. See Subclause 8.2.4 regarding extra-over costs for cut pipes where applicable.

PSL7.2 Recover Old Pipeline (Subclause 8.2.8)

Delete the sixth line and substitute the following:

salvaged recovered materials, and the backfilling and compaction of the trench

PSL7.3 Anchor/Thrust Blocks and Pedestals (Subclause 8.2.11)

Delete the last line and substitute the following:

formwork, concrete, reinforcement (if any), and screeding to top surfaces.

PSL7.4 Continuity Bonding at Joints (Subclause 8.2.16)

Add the following:

Extra over payment for electrical continuity bonding and repair of pipe coating will be made per joint completed as specified. Each joint bonding comprises two copper cables fastened with eight thermite welds and all necessary repairs to damaged pipe coatings.

Unit: No

PSL7.5 DRAWINGS L-1, L-2 AND L-3

References to mortar mixes to read 1 to 4 mortar

C4 SITE INFORMATION

C4.1 Scope of Site Information

The project site is located in Hoopstad, within the Free State Province. The town lies in a predominantly agricultural region of the Lejweleputswa District and is situated approximately 250 kilometres southwest of Johannesburg. The site can be accessed via the R34 Provincial Road, which connects Hoopstad to Bultfontein and Bloemhof.

The geographical coordinates of the site are as follows:

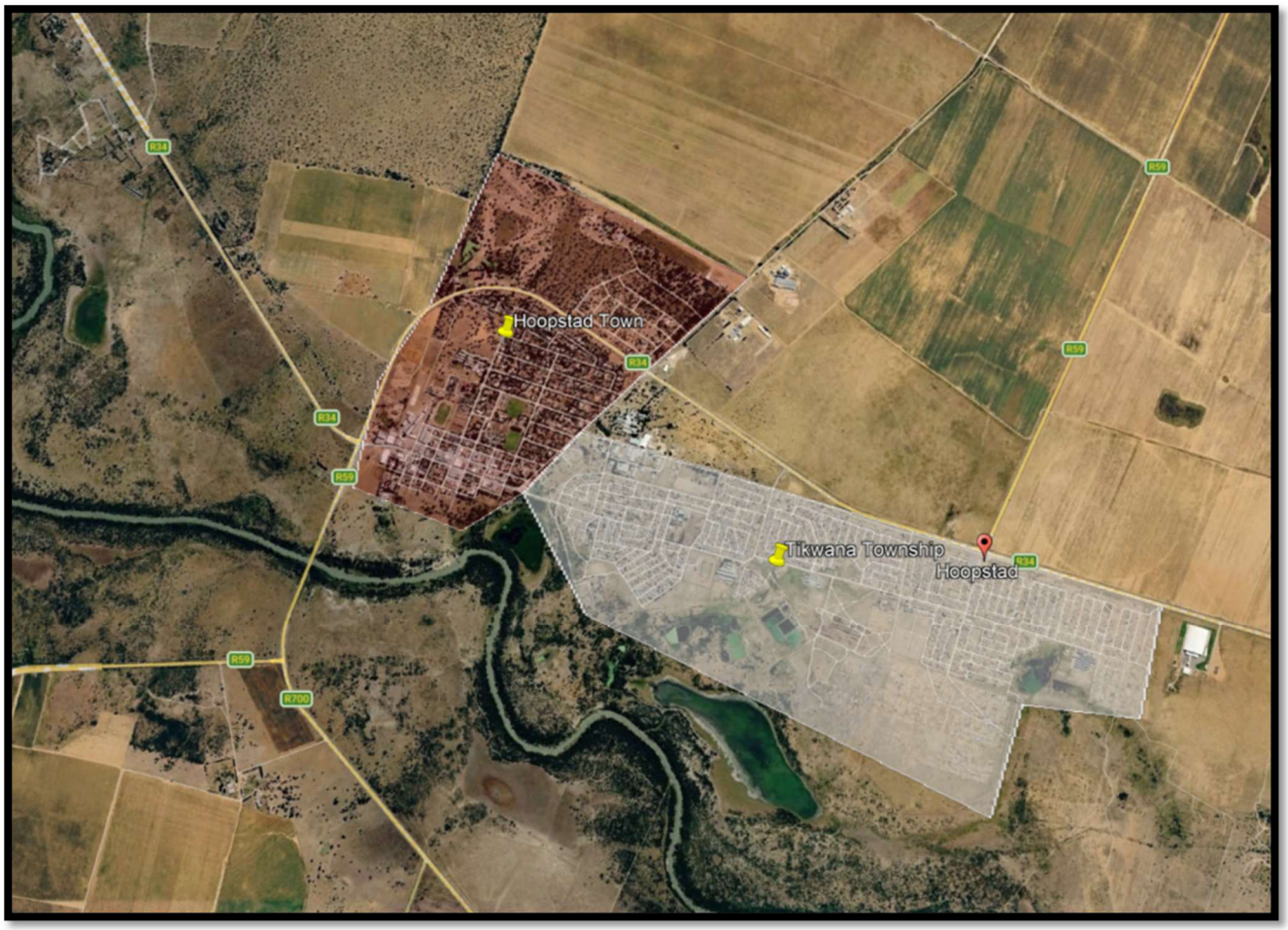


Figure 1 SITE locations

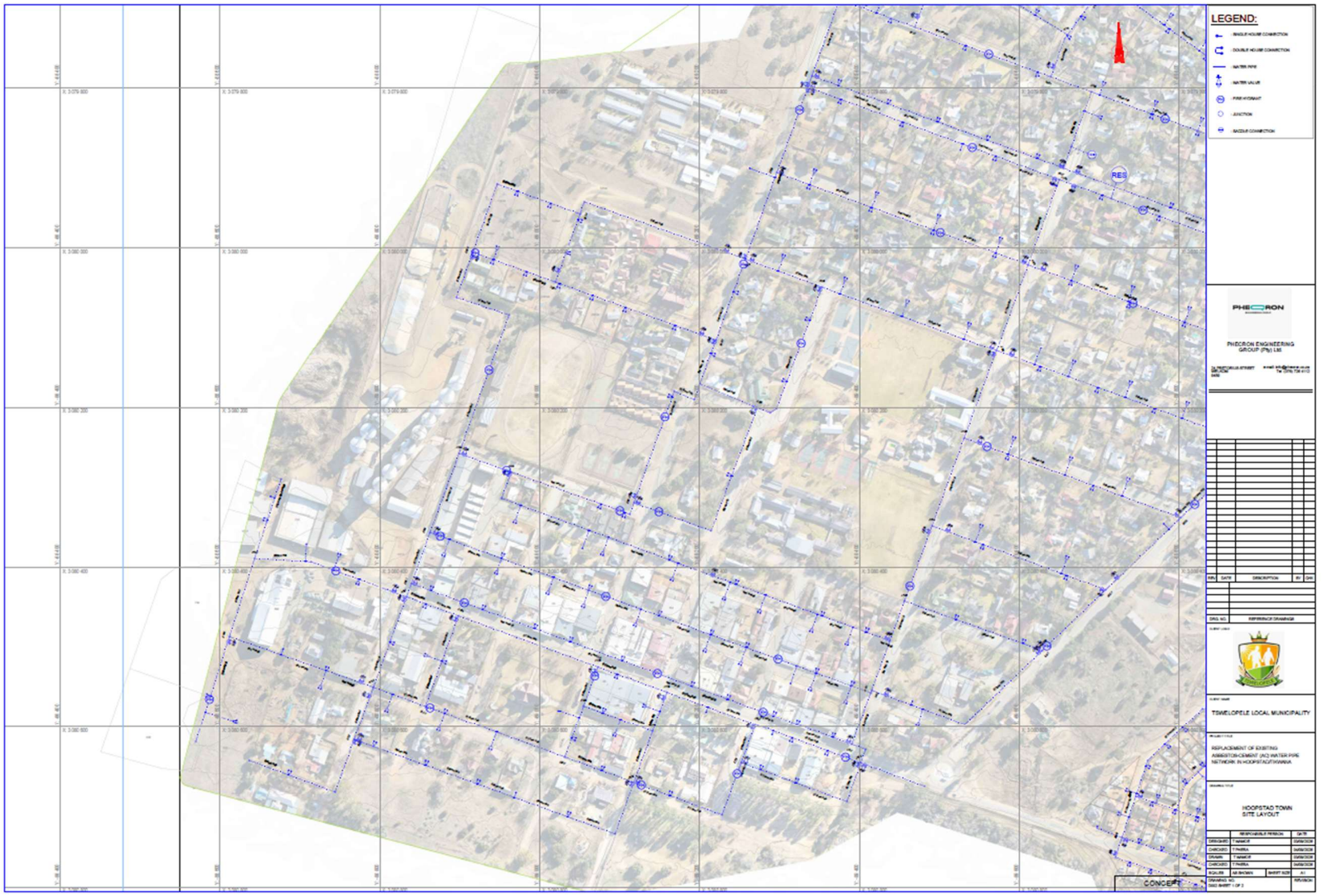
Site Topography and Environmental Factors

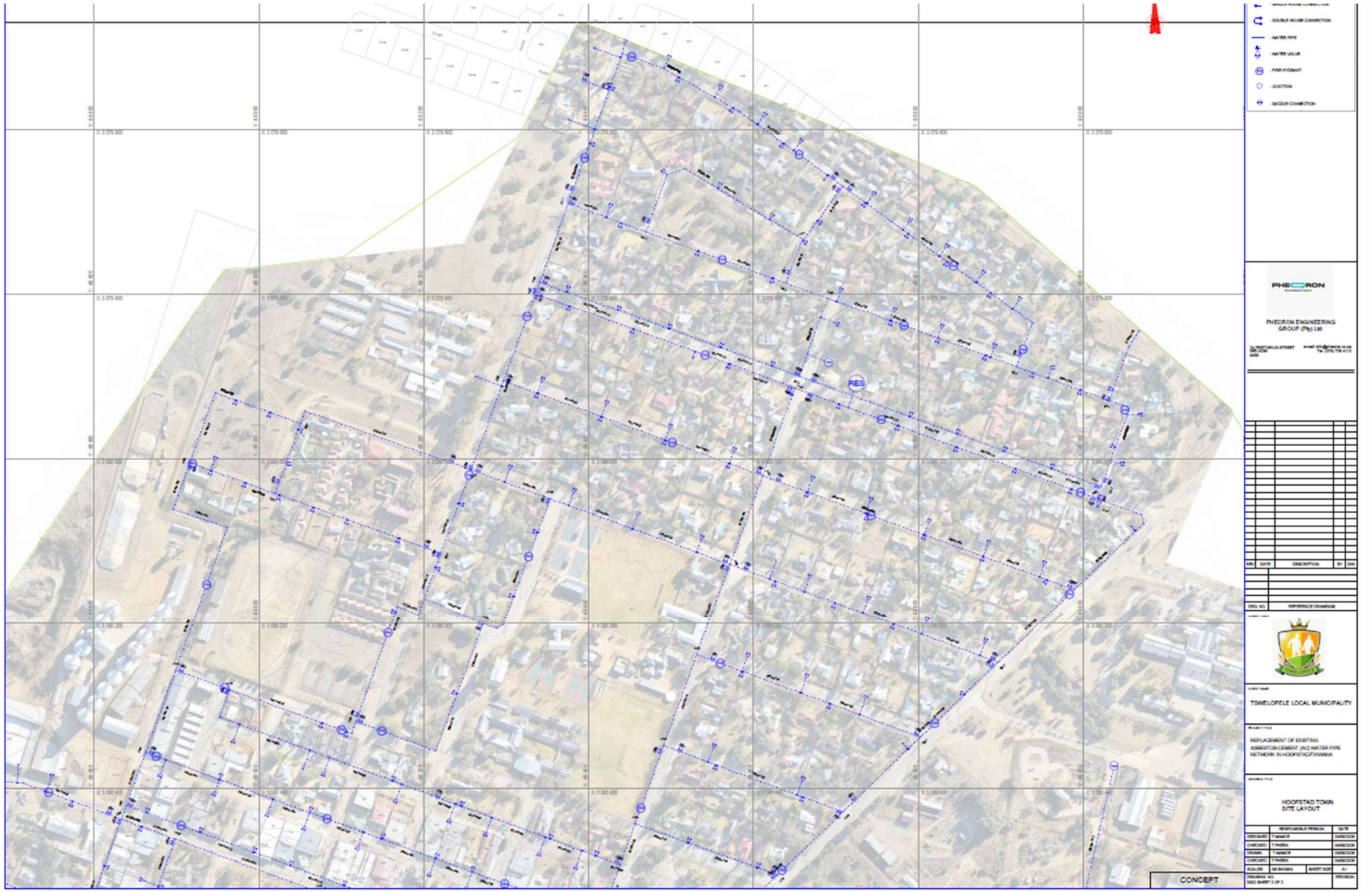
The soil in Hoopstad generally consists of clayey and sandy loam textures, typical of the region's agricultural landscape. These soils are moderately suitable for construction activities but may require proper compaction and moisture control to ensure adequate bearing capacity. Drainage considerations are important to prevent water accumulation, particularly after heavy rains. Subsoils are generally firm and stable, making them favourable for most foundation types

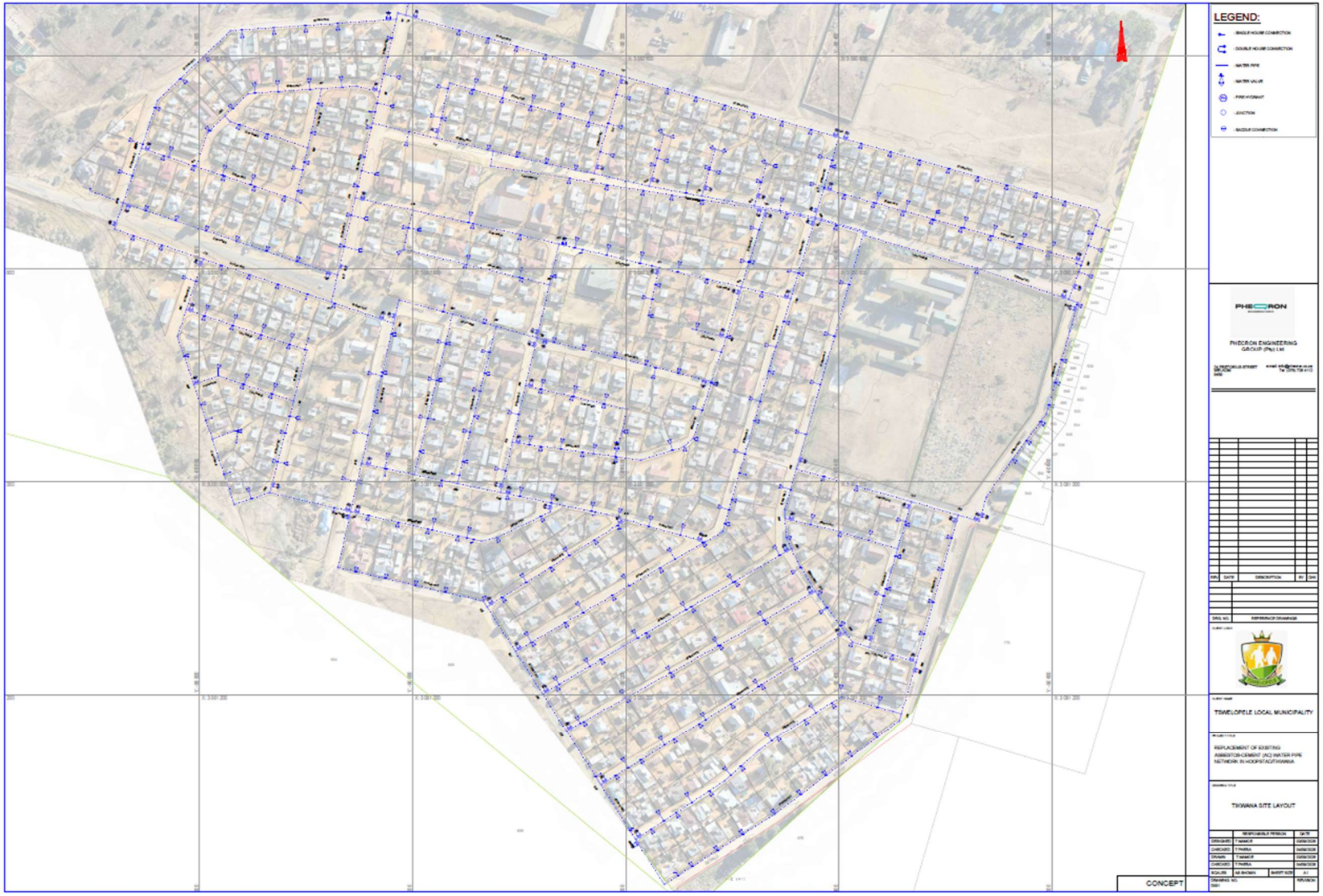
PART C5
ANNEXURES

TENDER DRAWINGS

The work shall be carried out in accordance with the following drawings which form part of these contract documents:


LEGEND:
PHEORON ENGINEERING GROUP (Pty) Ltd
TSWELOPELE LOCAL MUNICIPALITY
REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/KWANA
HOOPSTAD TOWN SITE LAYOUT
CONCEPT


RES
CONCEPT
PHEDRON ENGINEERING GROUP (Pty) Ltd
TSWELOPELE LOCAL MUNICIPALITY
REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/THABANA
HOOPSTAD TOWN SITE LAYOUT


LEGEND:
PHECRON ENGINEERING GROUP (Pty) Ltd
TSWELOPELE LOCAL MUNICIPALITY
REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/TWAANA
TWAANA SITE LAYOUT
CONCEPT

STRUCTURE LIST-Bulk Water		
STRUCTURE NAME	Y	X
J1	-29 715.620	3 079 906.532
J2	-29 982.644	3 079 685.635
J3	-29 630.310	3 080 091.375
J4	-29 583.212	3 080 152.804
J5	-29 536.497	3 080 230.539



LEGEND:

- SINGLE HOUSE CONNECTION
- DOUBLE HOUSE CONNECTION
- WATER PIPE
- WATER VALVE
- FIRE HYDRANT
- JUNCTION
- BACKUP CONNECTION
- AIR VALVE

PHECRON ENGINEERING GROUP (Pty) Ltd

NGL
EGL
HGL

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 1243.000

REFERENCE	J1	J2	J3	J4	J5
DISTANCE (m)					
GROUND LEVEL					
PIPE INVERT LEVEL					
SLOPE / LENGTH		0.45% L=219.7 133.25m	1.05% L=96.3 138.00m	1.28% L=92.4 136.00m	0.53% L=188.3 222.71m
CHANGE IN DIRECTION (HOR / VERT)					
FITTINGS	GATE VALVE	STRAIGHT	AIR VALVE	STRAIGHT	
HYDRAULICS DESIGN Q(l/s)	10.00	10.00	10.00	10.00	10.00
HYDRAULICS DESIGN V(m/s)	10.0	10.0	10.0	10.0	10.0

REV	DATE	DESCRIPTION	BY	CHK

DRG. NO. | REFERENCE DRAWINGS

TSWELOPELE LOCAL MUNICIPALITY

REPLACEMENT OF EXISTING ASBESTOS CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/TAVANNA

WATER PUMPING MAIN

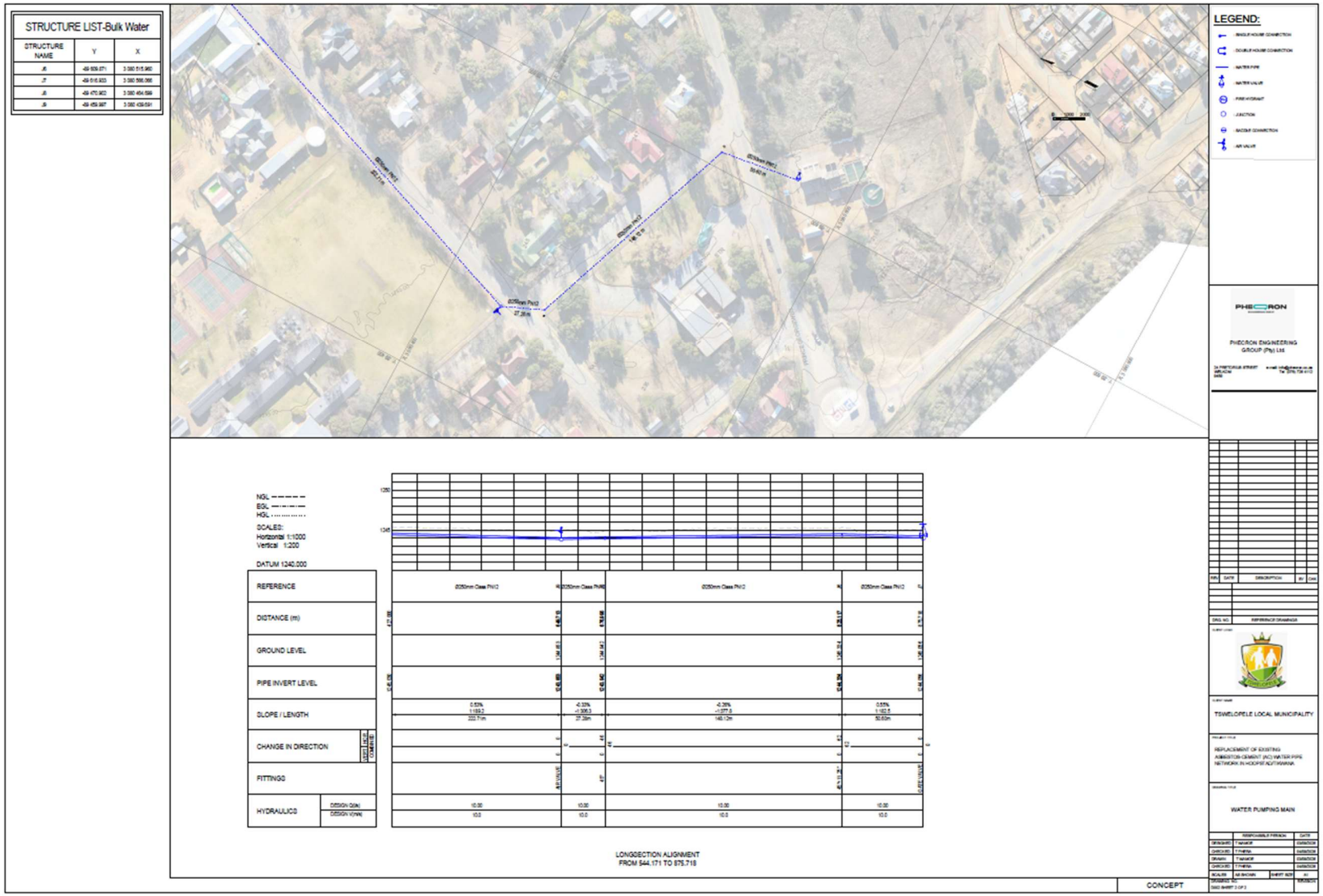
	RESPONSIBLE PERSON	DATE
DESIGNED	T HAMER	DATE/2024
CHECKED	T PHERA	DATE/2024
DRAWN	T HAMER	DATE/2024
CHECKED	T PHERA	DATE/2024
SCALES	AS SHOWN	SHEET SIZE A1

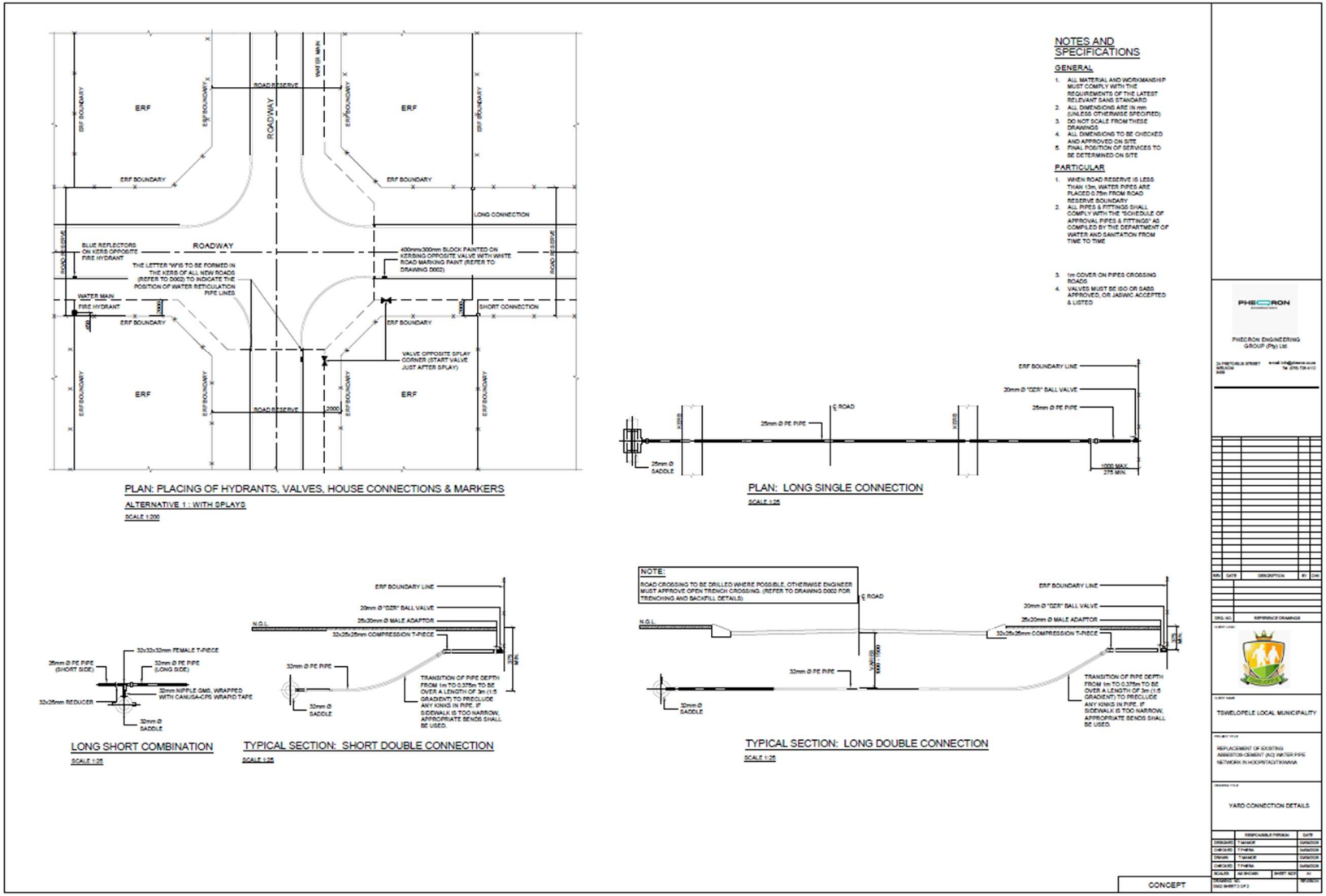
PROJECT NO. 1650/2024

SHEET 1 OF 3

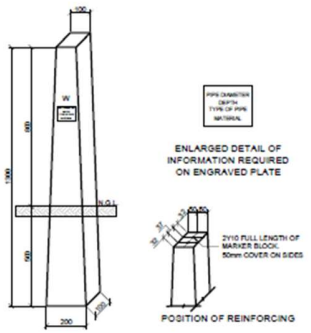
LONGSECTION ALIGNMENT
FROM 0.000 TO 544.171

CONCEPT


STRUCTURE LIST-Bulk Water
STRUCTURE NAME
Y
X
LEGEND:
PHECRON ENGINEERING GROUP (Pty) Ltd
NGL
EGL
HGL
SCALES:
Horizontal 1:1000
Vertical 1:200
DATUM 1240.000
REFERENCE
DISTANCE (m)
GROUND LEVEL
PIPE INVERT LEVEL
SLOPE / LENGTH
CHANGE IN DIRECTION
FITTINGS
HYDRAULICS
LONGSECTION ALIGNMENT
FROM 544.171 TO 875.718
TSWELOPELE LOCAL MUNICIPALITY
WATER PUMPING MAIN
CONCEPT

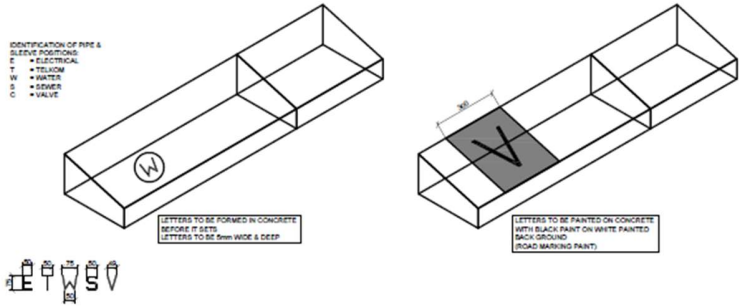


ERF
ROADWAY
ROAD RESERVE
WATER MAIN
ERF BOUNDARY
LONG CONNECTION
BLUE REFLECTORS ON KERB OPPOSITE FIRE HYDRANT
THE LETTER "W"IS TO BE FORMED IN THE KERB OF ALL NEW ROADS (REFER TO D002) TO INDICATE THE POSITION OF WATER RETICULATION PIPE LINES
400mm/300mm BLOCK PAINTED ON KERBING OPPOSITE VALVE WITH WHITE ROAD MARKING PAINT (REFER TO DRAWING D002)
WATER MAIN
FIRE HYDRANT
SHORT CONNECTION
VALVE OPPOSITE SPLAY CORNER (START VALVE JUST AFTER SPLAY)
2000
PLAN: PLACING OF HYDRANTS, VALVES, HOUSE CONNECTIONS & MARKERS
ALTERNATIVE 1 : WITH SPLAYS
SCALE 1:200
NOTES AND SPECIFICATIONS
GENERAL
1. ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS STANDARD
2. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED)
3. DO NOT SCALE FROM THESE DRAWINGS
4. ALL DIMENSIONS TO BE CHECKED AND APPROVED ON SITE
5. FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE
PARTICULAR
1. WHEN ROAD RESERVE IS LESS THAN 13m, WATER PIPES ARE PLACED 0.75m FROM ROAD RESERVE BOUNDARY
2. ALL PIPES & FITTINGS SHALL COMPLY WITH THE "SCHEDULE OF APPROVAL PIPES & FITTINGS" AS COMPILED BY THE DEPARTMENT OF WATER AND SANITATION FROM TIME TO TIME
3. 1m COVER ON PIPES CROSSING ROADS
4. VALVES MUST BE ISO OR SABS APPROVED, OR JASWIC ACCEPTED & LISTED
ERF BOUNDARY LINE
20mm Ø "DZR" BALL VALVE
25mm Ø PE PIPE
℄ ROAD
25mm Ø PE PIPE
25mm Ø SADDLE
1000 MAX. 275 MIN.
PLAN: LONG SINGLE CONNECTION
SCALE 1:25
32x32x32mm FEMALE T-PIECE
25mm Ø PE PIPE (SHORT SIDE)
32mm Ø PE PIPE (LONG SIDE)
32mm NIPPLE GMS, WRAPPED WITH CANUSA-CPS WRAPID TAPE
32x25mm REDUCER
32mm Ø SADDLE
LONG SHORT COMBINATION
SCALE 1:25
ERF BOUNDARY LINE
20mm Ø "DZR" BALL VALVE
25x20mm Ø MALE ADAPTOR
32x25x25mm COMPRESSION T-PIECE
N.G.L.
32mm Ø PE PIPE
32mm Ø SADDLE
TRANSITION OF PIPE DEPTH FROM 1m TO 0.375m TO BE OVER A LENGTH OF 3m (1:5 GRADIENT) TO PRECLUDE ANY KINKS IN PIPE. IF SIDEWALK IS TOO NARROW, APPROPRIATE BENDS SHALL BE USED.
TYPICAL SECTION: SHORT DOUBLE CONNECTION
SCALE 1:25
NOTE:
ROAD CROSSING TO BE DRILLED WHERE POSSIBLE, OTHERWISE ENGINEER MUST APPROVE OPEN TRENCH CROSSING. (REFER TO DRAWING D002 FOR TRENCHING AND BACKFILL DETAILS)
℄ ROAD
N.G.L.
32mm Ø PE PIPE
32mm Ø SADDLE
TRANSITION OF PIPE DEPTH FROM 1m TO 0.375m TO BE OVER A LENGTH OF 3m (1:5 GRADIENT) TO PRECLUDE ANY KINKS IN PIPE. IF SIDEWALK IS TOO NARROW, APPROPRIATE BENDS SHALL BE USED.
TYPICAL SECTION: LONG DOUBLE CONNECTION
SCALE 1:25
PHECRON
PHECRON ENGINEERING GROUP (Pty) Ltd.
TSWELOPELE LOCAL MUNICIPALITY
REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/TIKWANA
YARD CONNECTION DETAILS
CONCEPT



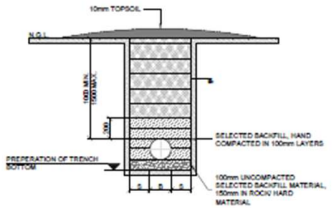
CONCRETE MARKER BLOCK

SCALE 1:10



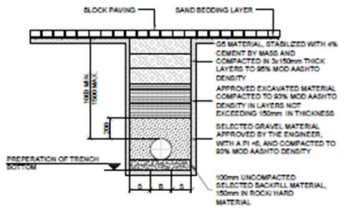
MARKERS ON CONCRETE KERBS

SCALE 1:10



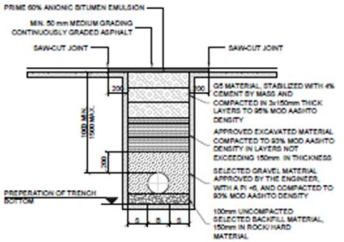
TRENCHING - SIDE WALKS

SCALE 1:20



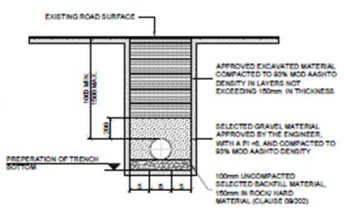
TRENCHING - PAVED AREAS

SCALE 1:20



TRENCHING - SURFACED ROADS

SCALE 1:20



TRENCHING - GRAVEL ROADS

SCALE 1:20

TYPICAL BEDDING & BACKFILL DETAILS FOR WATER PIPES

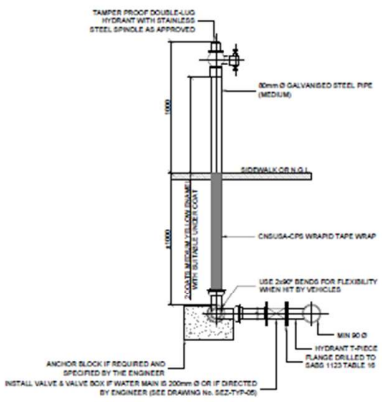
CONCEPT

PHEORON ENGINEERING GROUP (Pty) Ltd

TSWELOPELE LOCAL MUNICIPALITY

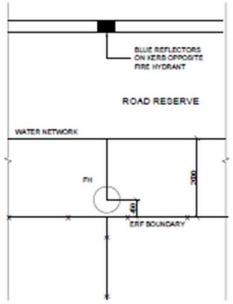
REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORKS IN HOOPSTAD/TAVANNA

BEDDING DETAILS



STANDARD FIRE HYDRANT

SCALE 1:15



STANDARD HYDRANT POSITION

SCALE 1:50

NOTES AND SPECIFICATIONS

GENERAL

1. ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS STANDARD
2. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED)
3. DO NOT SCALE FROM THESE DRAWINGS
4. ALL DIMENSIONS TO BE CHECKED AND APPROVED ON SITE
5. FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE

PARTICULAR

1. HYDRANTS MUST BE LOCATED IN COLLABORATION WITH THE CITY ELECTRICAL ENGINEER'S DEPARTMENT TO PRECLUDE CLASHES WITH ELECTRICAL HOUSE CONNECTIONS BOXES
2. STEEL PIPES & FITTINGS BELOW GROUND SHALL BE WRAPPED WITH CANUSA-CPS WRAPID TAPE
3. POSITION OF REFLECTOR CAN VARY TO AFFORD BEST VISIBILITY

PHECRON ENGINEERING GROUP (Pty) Ltd

REV	DATE	DESCRIPTION	BY	CHK

DRG. NO. REFERENCE DRAWINGS

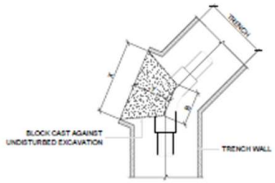
TSWELOPELE LOCAL MUNICIPALITY

REPLACEMENT OF EXISTING ASBESTOS CEMENT (AC) WATER PIPE NETWORK IN HOOPSTADTKWANA

FIRE HYDRANT

	RESPONSIBLE PERSON	DATE
DRAWN BY	T MAKOR	DATE/DOB
CHECKED	T PHERA	DATE/DOB
DRAWN	T MAKOR	DATE/DOB
CHECKED	T PHERA	DATE/DOB
SCALES	AS SHOWN	SHEET SIZE A1
DRAWING NO. DWG SHEET 2 OF 2		REVISION

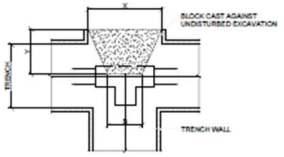
CONCEPT



PLAN: THRUST BLOCK FOR 45° BEND

SCALE 1:25

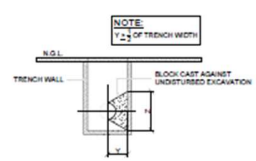
NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	DIMENSIONS (m)				AREA PROVIDED	VOL
		B	Z	X	Y		
(mm)	(m²)					(m²)	(m³)
75	0.061	0.300	0.400	0.400	0.350	0.160	0.049
110	0.109	0.300	0.500	0.500	0.375	0.250	0.075
160	0.245	0.300	0.500	0.500	0.400	0.250	0.080
200	0.435	0.300	0.600	0.600	0.400	0.480	0.132
250	0.680	0.350	0.650	1.100	0.450	0.715	0.212
300	0.979	0.400	0.700	1.400	0.500	0.980	0.315
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER.						



PLAN: THRUST BLOCK FOR T-PIECE

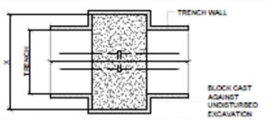
SCALE 1:25

NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	DIMENSIONS (m)				AREA PROVIDED	VOL
		B	Z	X	Y		
(mm)	(m²)					(m²)	(m³)
75	0.079	0.150	0.400	0.400	0.350	0.160	0.039
110	0.141	0.200	0.500	0.500	0.375	0.250	0.066
160	0.318	0.300	0.500	0.700	0.400	0.350	0.100
200	0.565	0.300	0.600	1.000	0.400	0.600	0.156
250	0.833	0.350	0.650	1.400	0.450	0.910	0.256
300	1.272	0.400	0.700	1.900	0.500	1.330	0.403
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER.						



TYPICAL SECTION: THRUST BLOCK FOR 22.5° & 45° BEND

SCALE 1:25



PLAN: THRUST BLOCK FOR PUDDLE FLANGE

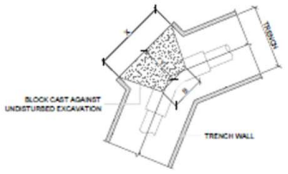
SCALE 1:25



SECTION: THRUST BLOCK FOR PUDDLE FLANGE

SCALE 1:25

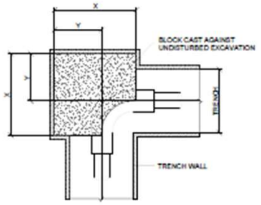
NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	TRENCH WIDTH	DIMENSIONS (m)			AREA PROVIDED	VOL
			X	Y	Z		
(mm)	(m²)	(m)				(m²)	(m³)
75	0.075	0.475	0.675	0.500	0.575	0.410	0.250
110	0.139	0.500	0.900	0.500	0.600	0.420	0.270
160	0.312	0.550	0.950	0.700	0.650	0.450	0.420
200	0.555	0.600	1.000	0.700	0.900	0.740	0.610
250	0.867	0.650	1.250	1.000	0.950	0.950	1.140
300	1.250	0.700	1.500	1.000	1.000	1.250	1.430
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER.						



PLAN: THRUST BLOCK FOR 22.5° BEND

SCALE 1:25

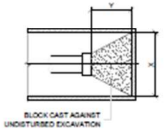
NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	DIMENSIONS (m)				AREA PROVIDED	VOL
		B	Z	X	Y		
(mm)	(m²)					(m²)	(m³)
75	0.031	0.300	0.400	0.400	0.350	0.160	0.049
110	0.055	0.300	0.500	0.500	0.375	0.250	0.075
160	0.124	0.300	0.500	0.500	0.400	0.250	0.080
200	0.220	0.300	0.500	0.600	0.400	0.360	0.106
250	0.344	0.350	0.650	0.650	0.450	0.423	0.146
300	0.496	0.400	0.700	0.800	0.500	0.560	0.210
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER.						



PLAN: THRUST BLOCK FOR 90° BEND

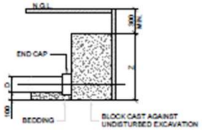
SCALE 1:25

NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	DIMENSIONS (m)			AREA PROVIDED	VOL
		Z	X	Y		
(mm)	(m²)				(m²)	(m³)
75	0.078	0.400	0.350	0.350	0.140	0.049
110	0.139	0.500	0.360	0.375	0.190	0.072
160	0.314	0.500	0.650	0.400	0.330	0.211
200	0.576	0.600	1.000	0.400	0.600	0.600
250	0.871	0.650	1.400	0.450	0.910	1.274
300	1.225	0.700	1.800	0.500	1.260	2.268
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER.					



PLAN: THRUST BLOCK FOR DEAD END

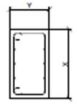
SCALE 1:25



SECTION: THRUST BLOCK FOR DEAD END

SCALE 1:25

NOMINAL PIPE DIAMETER Ø	AREA REQUIRED	DIMENSIONS (m)				AREA PROVIDED	VOL
		B	Z	X	Y		
(mm)	(m²)					(m²)	(m³)
75	0.075	0.075	0.300	0.475*	0.200	0.140	0.017
110	0.139	0.100	0.300	0.500*	0.200	0.150	0.018
160	0.312	0.150	0.600	0.550*	0.200	0.330	0.063
200	0.555	0.200	0.650	0.600*	0.200	0.570	0.076
250	0.867	0.250	0.700	1.250	0.500	0.880	0.263
300	1.248	0.300	0.750	1.700	0.700	1.260	0.525
>300	NOTES: THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURE THAN 16 BAR SHALL BE DESIGNED BY THE ENGINEER. * = TRENCH WIDTH						



THRUST BLOCK THICKNESS = 500mm
CONCRETE CLASS = 25MPa
HORIZONTAL REBAR = Y10 @ 200
VERTICAL REBAR = 3 LAYERS Y10 @ 200
75mm COVER OVER REINFORCEMENT

PLAN : 75mm Ø & 110mm Ø PIPES



THRUST BLOCK THICKNESS = 700mm
CONCRETE CLASS = 25MPa
HORIZONTAL REBAR = Y12 @ 200
VERTICAL REBAR = 3 LAYERS Y12 @ 200
75mm COVER OVER REINFORCEMENT

PLAN : 160mm Ø & 200mm Ø PIPES



THRUST BLOCK THICKNESS = 1000mm
CONCRETE CLASS = 25MPa
HORIZONTAL REBAR = Y12 @ 150
VERTICAL REBAR = 4 LAYERS Y12 @ 150
75mm COVER OVER REINFORCEMENT

PLAN : 250mm Ø & 300mm Ø PIPES

REINFORCEMENT DETAILS FOR PUDDLE FLANGE THRUST BLOCKS

SCALE 1:25

NOTES AND SPECIFICATIONS

GENERAL

1. ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS STANDARD
2. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED)
3. DO NOT SCALE FROM THESE DRAWINGS
4. ALL DIMENSIONS TO BE CHECKED AND APPROVED ON SITE
5. FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE

PARTICULAR

1. THRUST BLOCK DIMENSIONS ON THIS DRAWING ARE ONLY APPLICABLE UNDER THE FOLLOWING CONDITIONS: UNDISTURBED VIRGIN GROUND MOISTURE OR DRIER, UNIFORM SAND WITH A BEARING CAPACITY OF AT LEAST 150 kPa UNDER NORMAL CONDITIONS MAXIMUM INTERNAL PIPE PRESSURE OF 16 MPa IF THE CONTRACTOR IS NOT IN A POSITION TO IDENTIFY THE ABOVE CONDITIONS, AN ENGINEERING GEOLOGIST OR AN ENGINEER MUST BE CONSULTED. IN ALL OTHER CONDITIONS THE ACTUAL IN-SITU BEARING PRESSURE SHALL BE CALCULATED AND THE THRUST BLOCK DESIGNED BY THE ENGINEER.
2. CONCRETE PUDDLE FLANGES - 25/19 OTHER - 15/19
3. HALF THE DEPTH OF THE THRUST BLOCK TO BE PLACED BELOW THE PIPE BOSE
4. KEEP CONCRETE AWAY FROM THE COUPLINGS & THE PIPE JOINTS

PHECRON

PHECRON ENGINEERING GROUP (Pty) Ltd

NR.	DATE	DESCRIPTION	BY	CHK

DRG. NO. | REFERENCE DRAWINGS

CLIENT LOGO

CLIENT NAME: TSWELOPELE LOCAL MUNICIPALITY

PROJECT TITLE: REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTADT KWANA

DRAWING TITLE: THRUST BLOCKS DETAILS

	RESPONSIBLE PERSON	DATE
DESIGNED	T.NAKOP	04/04/2024
CHECKED	T.THEBA	04/04/2024
DRAWN	T.NAKOP	04/04/2024
CHECKED	T.THEBA	04/04/2024

SCALES: AS SHOWN | SHEET SIZE: A1

DRAWING NO: 5902 SHEET 2 OF 2 | REVISION

CONCEPT

TYPE B - SPECIAL - MANHOLE COVER :

ONLY TO BE USED FOR :

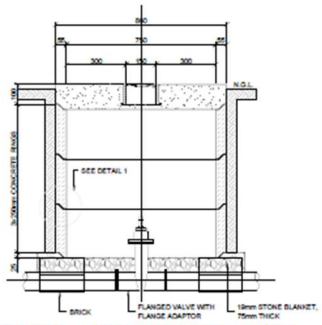
- MAINTENANCE
- WITHIN ROADWAY
- FIRE HYDRANT CONNECTIONS LARGER THAN 200 Ø
- OR IF SPECIFIED BY ENGINEER

TYPE A - STANDARD - MANHOLE RINGS :

FOR USE WITHIN SIDE WALKS

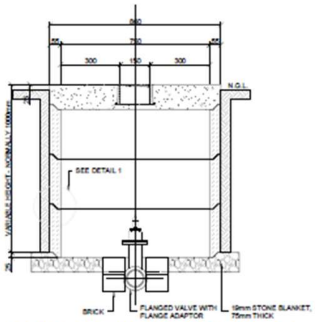
BENDING SCHEDULE						
TYPE & SIZE	QTY	CUTTING LENGTH (mm)	SHAPE CODE	A (mm)	B (mm)	MASS (kg)
R8	1	2150	60	550	550	0.850

PRE-CAST CONCRETE CHAMBER RINGS			
INNER Ø (mm)	EFFECTIVE LENGTH (mm)	WALL THICKNESS	OUTER Ø (mm)
R8	250, 500, 1000	55	860



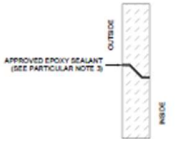
SECTION C-C: CONCRETE RING VALVE CHAMBER

SCALE 1:10



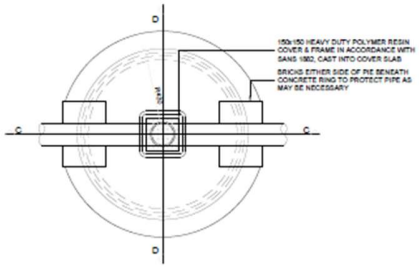
SECTION D-D: CONCRETE RING VALVE CHAMBER

SCALE 1:10



DETAIL 1

SCALE 1:5



PLAN: CONCRETE RING VALVE CHAMBER

SCALE 1:10



CONCRETE COVER SLAB DETAILS

SCALE 1:10

NOTES AND SPECIFICATIONS

GENERAL

1. ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS STANDARD
2. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED)
3. DO NOT SCALE FROM THESE DRAWINGS
4. ALL DIMENSIONS TO BE CHECKED AND APPROVED ON SITE
5. FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE

PARTICULAR

1. PAINT 400x300mm BLOCK ON KERBING OPPOSITE VALVE WITH WHITE ROAD MARKING PAINT
2. ALL RSV VALVES TO BE FLANGED NON RISING SPINDLE, ANTI-CLOCKWISE CLOSING WITH CAP TOP
3. STEEL PIPES MUST BE WRAPPED WITH CANUSA-CPS WRAPID TAPE
4. STAINLESS STEEL BOLTS & NUTS TO BE USED
5. MANHOLE COVER SPECIFICATIONS : - WITHIN ROADWAY : CLASS D400 MANHOLE COVER IN ACCORDANCE WITH SANS 50124, POLYESTER RESIN OR SIMILAR - WITHIN SIDEWALK : HEAVY DUTY COVER & FRAME IN ACCORDANCE WITH SANS 1882, POLYMER RESIN OR SIMILAR

PHECRON

PHECRON ENGINEERING GROUP (Pty) Ltd

REV.	DATE	DESCRIPTION	BY	CHK

DRG. NO. | REFERENCE DRAWINGS

CLIENT LOGO

CLIENT NAME

TSWELOPELE LOCAL MUNICIPALITY

PROJECT TITLE

REPLACEMENT OF EXISTING ASBESTOS-CEMENT (AC) WATER PIPE NETWORK IN HOOPSTAD/TIKWANA

DRAWING TITLE

VALVE CHAMBER DETAILS

	RESPONSIBLE PERSON	DATE
DESIGNED	T MAMOE	DATE/DD/DD
CHECKED	T PHERA	DATE/DD/DD
DRAWN	T MAMOE	DATE/DD/DD
CHECKED	T PHERA	DATE/DD/DD
SCALES	AS SHOWN	SHEET SIZE A1

DRAWING NO. SMG SHEET 2 OF 2 | REVISION

CONCEPT