



METSIMAHOLO LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02 BID NO.: 19/2022/23

CIDB GRADING: 6CE OR HIGHER

<p>ISSUED BY:</p> <p>Metsimaholo Local Municipality Municipal Building 10 Fichardt Street Sasolburg 4800</p> <p>Project Manager: Mr S Bila Tel No.+27 16 973 8487 E-mail: sibusiso.bila@metsimaholo.gov.za</p>	<p>PREPARED BY:</p> <p>Phecron Engineering Group 110 Selborne Ave Westdene Bloemfontein 9300</p> <p>Project Engineer: Mr T. Phera Tel: +27 76 726 4112 E-mail: bids@phcron.co.za</p>																								
<table> <tr> <td>Name of Company</td> <td>:</td> <td>.....</td> </tr> <tr> <td>Contact Name</td> <td>:</td> <td>.....</td> </tr> <tr> <td>Contact No</td> <td>:</td> <td>.....</td> </tr> <tr> <td>Email Address</td> <td>:</td> <td>.....</td> </tr> <tr> <td>CSD Supplier Number</td> <td>:</td> <td>.....</td> </tr> <tr> <td>CIDB: CRS Number</td> <td>:</td> <td>.....</td> </tr> <tr> <td>Tender Amount (VAT incl.):</td> <td></td> <td>R</td> </tr> <tr> <td>Time For Completion</td> <td>:</td> <td>.....Weeks</td> </tr> </table>		Name of Company	:	Contact Name	:	Contact No	:	Email Address	:	CSD Supplier Number	:	CIDB: CRS Number	:	Tender Amount (VAT incl.):		R	Time For Completion	:Weeks
Name of Company	:																							
Contact Name	:																							
Contact No	:																							
Email Address	:																							
CSD Supplier Number	:																							
CIDB: CRS Number	:																							
Tender Amount (VAT incl.):		R																							
Time For Completion	:Weeks																							

TENDER NUMBER: MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02**

LIST OF CONTRACT DOCUMENTS

The following documents form part of this contract:

1. The General Conditions of Contract for Construction Works, Second Edition (GCC 2015), published by the South African Institute of Civil Engineers, which the Tenderer shall purchase himself (see note 1 below).
2. SANS 1200 The Standard Specifications for Civil Engineering Construction
3. The Standard Specifications for Road and Bridge Works for State Road Authorities, 1998 Edition (COLTO) published by the South African Institute of Civil Engineers, which the Tenderer shall purchase himself
4. The Project Document containing the Tender Notice, Conditions of Tender, Tender Data, Returnable Schedules, Form of Offer, General and Particular Conditions of Contract, Pricing Schedule, Project Specifications and Site Information, issued by the Employer (see note 4 below). The Employer's Form of Acceptance and any correspondence from the selected Tenderer, performance security-demand guarantee, and all addenda issued during the period of tender will also form part of this volume once a Tenderer has been appointed.
5. The civil drawings

Notes to Tenderer

1. **Volume 1 is obtainable from SAICE, Private Bag X200, Halfway House, 1685.**
Tel: +27 11 805 5947 Fax: +27 11 805 5971, email: civilinfo@saice.org.za.
Website: <http://www.saice.org.za>
2. **Volume 2 is obtainable from SA Bureau of Standards Dr Lategan Road; Groenkloof; Pretoria; 0001. Private Bag X191, Pretoria, 0001.**
3. **Volume 3 is obtainable from SAICE, Private Bag X200, Halfway House, 1685.**
Tel: +27 11 805 5947 Fax: +27 11 805 5971, email: civilinfo@saice.org.za.
Website: <http://www.saice.org.za>
4. **Volume 4 is issued at tender stage as per tender advertisement. The pricing data is available on request in Excel format**
At contract stage Volume 4 will be a bound signed paper copy containing the following documents:
 - Returnable schedules relevant to the project
 - Agreements and Contract Data
 - Pricing Data
 - Scope of Work
 - Site Information
4. **SUBMISSION OF TENDER – Refer to clause F2 in the Tender Data**

Information provided by a Tenderer over and above the above elements of Volume 4 shall be treated as information only and will only be bound into the document if the tenderer notes on Form A4: Schedule of Variations or deviations that the information has a bearing on the tender price.

- 5. For alternative offers, the Tenderer shall refer to clause F2.12 in the Tender Data**

Contents		
Number	Heading	
The Tender		
Part T1: Tendering procedures		
T1.1	Tender Notice and Invitation to Tender	
T1.2	Conditions of Tender	
T1.3	Tender Data	
Part T2: Returnable documents		
T2.1	List of Returnable Documents	
T2.2	Returnable Schedules	
The Contract		
Part C1: Agreement and Contract Data		
C1.1	Form of Offer and Acceptance	
C1.2	Contract Data	
C1.3	Form of Guarantee	
C1.4	Safety Agreement	
Part C2: Pricing data		
C2.1	Pricing Instructions	
C2.2	Activity Schedule	
C2.3	Bill of Quantities	
Part C3: Scope of Work		
C3	Scope of Work	
C3.4	Project Specifications	
C3.5	Particular Specifications	
Part C4: Site Information		



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE
CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN
ZAMDELA TOWNSHIP WARD 08 PHASE
02**

CONTENTS

PART T1: TENDERING PROCEDURES T1-4	8
T1.1 TENDER NOTICE AND INVITATION TO TENDER.	9
T1.2 CONDITIONS OF TENDER	10
T1.3 TENDER DATA	22
 PART T2: RETURNABLE DOCUMENTS	 33
T2.1 LIST OF RETURNABLE DOCUMENTS	37
T2.2 RETURNABLE SCHEDULES	38
 PART C1: THE CONTRACT	 68
C1.1 FORM OF OFFER AND ACCEPTANCE	69
C1.2 CONTRACT DATA	73
C1.2.1 CONDITIONS OF CONTRACT	74
C1.2.2 CONTRACT SPECIFIC DATA	76
C1.2.3 DATA PROVIDED BY THE TENDERER	78
C1.3 FORM OF GUARANTEE	79
C1.4 ADJUDICATOR'S AGREEMENT	81
 PART C2: PRICING DATA	 83
C2.1 PRICING INSTRUCTIONS	84
C2.3 BILL OF QUANTITIES	86

PART C3: SCOPE OF WORKS	103
C3.1 DESCRIPTION OF WORKS	104
C3.2 ENGINEERING	110
C3.3 PROCUREMENT	111
C3.4 CONSTRUCTION	112
C3.4.1 WORKS SPECIFICATION	113
PART C4: SITE INFORMATION	213
C4.1 SCOPE OF SITE INFORMATION	214
PART C5: ANNEXURES	
C5 TENDER DRAWINGS	221



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE
CONSTRUCTION OF BLOCK PAVED ROADS AND
STORMWATER IN ZAMDELA TOWNSHIP WARD 08
PHASE 02**

PART T1: TENDERING PROCEDURES

PART T2: RETURNABLE DOCUMENTS

T.1.1 TENDER NOTICE AND INVITATION TO TENDER



TENDER NOTICE

BID NO: MLM 19/2022/23

METSIMAHOLO LOCAL MUNICIPALITY invites tenders for the **ADVERTISEMENT: APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02 .**

Tenderers should have a CIDB Contractor grading designation of 6CE or higher.

Bid documents will be available during working hours upon payment of R1000.00 at The Municipal Building, 10 Fichardt Street, Sasolburg. Documents can also be downloaded for the e-tender portal www.e-tenders.gov.za for free.

No clarification meeting will be required.

It is a pre-requisite that Bidders must be in good standing with SARS, have the requisite CIDB certificate, and must be registered on the Central Supplier Database (CSD).

The closing time and date for receipt of tenders is **29 March 2023, 11H00**. Bid documents, clearly marked BID MLM 19/2022/23; ADVERTISEMENT: APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02 must be deposited in the bid box at the Municipal Building, 10 Fichardt Street, Sasolburg before the closing time. Bid documents will be opened in public soon after the closing time. Telegraphic, telephonic, telex, e-mail, facsimile, and late tenders will not be accepted. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Service providers will be adjudicated according to the Supply Chain Management Policy using the 80/20 point system, based on the Preferential Procurement Policy Framework Act 5 of 2005 and MFMA, Act 56 of 2003 as well as the Broad-Based Black Economic Empowerment Act, Act 53 of 2003.

Queries relating to the issues of these documents may be addressed to:

Administrative:

Mr S. Bila

Tel No. +27 16 973 8487

E-mail: sibusiso.bila@metsimaholo.gov.za

Technical:

Mr T. Phera

Tel No.+27 76 726 4112

E-mail: bids@phecron.co.za

T1.2 CONDITIONS OF TENDER

T1.2 CONDITIONS OF TENDER

F.1 General

F.1.1 Actions

F.1.1.1 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 and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

- Note:
- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
 - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

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 of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) Someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) in compatibility or contradictory interests exist between an employee and the organisation which employs that employee.

- b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **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, *or any official in the public service or in the employ of an Organ of State*, in the tender process; and
- d) **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
- e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs
- g) **tenderer** means any organisation who is represented by a duly authorised employee, partner, shareholder or director that responds to the Tender Notice by drawing tender documents
- h) **these conditions of tender** mean the Standard Conditions of Tender (as published and amended from time to time by the Construction Industry Development Board) and the employer's Special Conditions of Tender, the latter are demonstrated by appearing in italics.

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 readily read, copied and recorded. Communications 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 *does not bind itself to accept the lowest or any other tender, and may, in addition, 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.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months (*measured between the relevant closing dates of the abandoned tender and the re-issued tender*) unless only one tender was received and such tender was returned unopened to the tenderer, *or if there is agreement by the participating tenderers.*

F.2 Tenderer's obligations

F.2.1 Eligibility

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with the employer.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

F.2.2 Cost of tendering

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of *attending any clarification meeting* and any testing necessary to demonstrate that aspects of the offer complies with the requirements.

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, *regardless whether or not a tender offer is submitted*, 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, *in person or designate a suitably qualified person in the direct employ of the tenderer*, 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(s) 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 working days before the closing time stated in the tender data. *Any variation or deviation based on a point for which clarity should have been requested may render a tenderer's offer non-responsive in terms of F.3.8.*

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 advised to seek qualified advice regarding insurance.

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 *costs prescribed as being applicable to the specified pay items as well as all* duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

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

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

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

F.2.11 Alterations to documents

Not make any alterations or additions to the 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 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed. *Alternative tender offers shall not alter any contingency pay items provided in the tender documents, or offer fixed prices (except where such are provided in the postulated pricing schedule) or a fixed price contract.*

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.2.12.3 *Qualify a tender offer (except that no qualifications shall be in conflict with F.2.8) but undertake to do so by submitting such qualification in terms of F.2.12.1 and F.2.12.2.*

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture 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, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

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, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the 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 Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

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

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

F.2.13.8 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.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

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, may 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. Accept that proof of posting shall not be accepted as proof of delivery.

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 with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be *modified, corrected, withdrawn* or substituted by giving the employer written notice before the closing time for tenders that a tender is to be *modified, corrected, withdrawn* or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17 Clarification or withdrawal of tender offer after submission

F.2.17.1 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 or *adjusting of imbalanced rates*, 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.

F.2.17.2 *Accept that the employer may, at its sole discretion, accept a less favourable tender from those already received or invite fresh tenders if a tenderer, at any time after the opening of his tender offer but prior to the signing of a contract based on his tender offer:*

- a) *withdraws his tender; or*
- b) *gives notice of his inability to execute the contract in terms of his tender; or*
- c) *fails to sign a contract or furnish the performance security within the period fixed in the letter of award or any extended period fixed by the employer; or*
- d) *fails to comply with a request made in terms of F.2.17.1 or F.2.18.1,*

in which case such tenderer shall be automatically barred from tendering on any of the employer's future tenders for a period to be determined by the employer, but not less than twelve (12) months, from the date of tender closure. The employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.

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), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive *and may invoke the same remedy as provided for under F.2.17.2.*

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

F.2.18.3 *Accept the employer's right, at its sole discretion, to appoint suitably qualified persons to report on the financial resources, standing with the South African Revenue Service regarding all taxes, management structure and ownership details of any tenderer and/or to verify the correctness of any information furnished to the employer in terms of F.2.17.1. Comply with the employer's request within the time stated in the request. Failure on the part of the tenderer to cooperate with such an inquiry shall entitle the employer to declare such tender offer as non-responsive and may invoke the same remedy as provided for under F.2.17.2.*

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 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 requests from the tenderer**

F.3.1.1 Unless otherwise stated in the tender data respond to a request for clarification received up to five working days before the tender closing time stated in the tender data and notify all tenderers who drew *tender* documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence: -

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

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 three working days before the tender closing time stated in the tender data. If, as a result a tenderer applies for an extension to the closing time stated in the tender data, the Employer may grant such extension and, shall then notify all tenderers who drew *tender* documents.

F.3.3 Return late tender offers

Return tender offers *withdrawn in terms of F.2. 16.3* or 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 and, where applicable, the total of his prices, preferences claimed and time for completion 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 advise 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 *equal to or more than* the minimum number of points for quality stated in the tender data, and announce the total price. 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

F.3.7.1 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. *In addition, any such disqualification shall entitle the employer, at its sole discretion, to impose a specified period during which tender offers will not be accepted from the offending tenderer.*

F.3.7.2 *Communicate to other state tender boards, provincial tender boards or parastatal tender boards any tenderer disqualified in terms of special condition F.3.7.1.*

F.3.7.3 *Consider rejecting any tender offers received from tenderers who are involved in any form of litigation or legal proceedings by or against the Employer.*

F.3.7.4 *Reject any offer from a tenderer who has not purchased the tender documents in his own name or in the name of a fellow member of a joint venture.*

F.3.7.5 *Reject any offer from a tenderer that contains information or data that is not in compliance with the minimum key staff qualification requirements.*

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) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation *unless it can be subsequently rendered responsive by correction of non-material deviations.*

F.3.9 Arithmetical errors, omissions, discrepancies and imbalanced unit rates

F.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

F.3.9.2 Check *responsive* tender offers for:

- a) the gross misplacement of the decimal point in any unit rate;
 - b) omissions made in completing the pricing schedule or bills of quantities; or
 - c) arithmetic errors in:
 - i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.
- F) *imbalanced unit rates.*

F.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

F.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.
- c) *Where the unit rates are imbalanced request tenderers to amend and adjust any rates declared imbalanced by the employer while retaining the total of the prices derived after any adjustment made.*

F.3.9.5 Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors or amend/adjust an imbalanced unit rate in the manner described above.

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 of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.3 Method 2: Financial offer and preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula, unless otherwise stated in the tender data:

$$T_{EV} = N_{FO} + N_P + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8;

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$N_{FO} = W_1 \times A$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer.
 W_1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the tender data.
 A is a number calculated using the formula and option described in Table F.1 as stated in the tender data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P_m / P$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$
P_m is the comparative offer of the most favourable comparative offer (excluding all Provisional and Prime Cost Sums and the associated VAT). P is the comparative offer of the tender offer under consideration (excluding all Provisional and Prime Cost Sums and the associated VAT).			

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring quality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the tender data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$N_Q = W_2 \times S_O / M_S$$

where: S_O is the score for quality allocated to the submission under consideration;
 M_S is the maximum possible score for quality in respect of a submission; and
 W_2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

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.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F.3.19 Delegation of authority

The Employer may delegate any power vested in him by virtue of these Conditions of Tender to an officer or employee of the Employer.

T1.3 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (May 2010) as published in Government Gazette No 33239, Board Notice 86 of 2010.

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

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

Sub- clause	Data
F1.1	The Employer is Metsimaholo Local Municipality.
F1.2	<p>The Project Document issued by the Employer consists of the following:</p> <p>THE TENDER</p> <p>Part T1: Tendering procedures:</p> <p style="padding-left: 40px;">T1.1 Tender notice and invitation to tender</p> <p style="padding-left: 40px;">T1.2 Tender Data</p> <p>Part T2: Returnable documents</p> <p style="padding-left: 40px;">T2.1 Returnable Schedules required for Tender Evaluation</p> <p style="padding-left: 40px;">T2.2 Other Documents required for Tender Evaluation</p> <p style="padding-left: 40px;">T2.3 Returnable Schedules that will be incorporated into the Contract</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and contract data</p> <p style="padding-left: 40px;">C1.1 Form of Offer and Acceptance</p> <p style="padding-left: 40px;">C1.2 Agreement in terms of Occupation Health and Safety Act</p> <p style="padding-left: 40px;">C1.3 Form of Guarantee</p> <p style="padding-left: 40px;">C.1.4 Contract Data</p> <p>Part C2: Pricing data</p> <p style="padding-left: 40px;">C2.1 Pricing instructions</p> <p style="padding-left: 40px;">C2.2 Bills of quantities</p> <p>Part C3: Scope of work</p> <p>Part C4: Site information</p> <p style="padding-left: 40px;">Drawings</p>

Tender data contd.

Sub-clause	Data
F1.3	The Tender Document is available upon payment of R1000.00 or can be downloaded free of charge from the e tender website.
F1.4	<p>Name: Phecron Engineering Group</p> <p>Address: 110 Selborne Ave, Bloemfontein 9300</p> <p>Contact person: Thabo Phera</p> <p>Cell: +27 76 726 4112</p> <p>E-mail: bids@phecron.co.za</p>
	Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to 6CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 6CE class of construction work, are eligible to have their tenders evaluated.
	<p>a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to 6CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 6CE class of construction work, are eligible to have their tenders evaluated.</p> <ol style="list-style-type: none"> every member of the joint venture is registered with the CIDB; the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an 6CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub-clause	Data
F1.4	<p>b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <ol style="list-style-type: none"> 1. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 6CE class of construction work; and <ul style="list-style-type: none"> • the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and • the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract. <p>c) No clarification meeting will be required.</p>
F2.1	<p>Eligibility</p> <p>Only those tenderers who satisfy the following eligibility criteria and who provide the required evidence in their tender submissions are eligible to submit tenders and have their tenders evaluated:</p> <ol style="list-style-type: none"> a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to 6CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 6CE class of construction work, are eligible to have their tenders evaluated. <p>Joint ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> - every member of the joint venture is registered with the CIDB; - the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an 6 CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub-clause	Data
F2.1	<p>b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <p>I. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 6CE class of construction work; and</p> <ul style="list-style-type: none"> the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract. <p>c) No clarification meeting will be required.</p>
F2.10	<p>a) The Valued Added Tax (VAT) rate shall be 15% or as otherwise provided for by legislation.</p> <p>b) The successful Tenderer shall be required to produce a VAT invoice that shall only be prepared once measurements and valuations for work done in terms of the contract offer have been agreed with the Employers agent and a certificate of payment issued.</p> <p>Payment of VAT to previously non-VAT vendors shall be processed from the month in which the Tenderers liability with the South African Revenue Services is effective.</p>
F2.11	<p>A Tender offer shall not be considered if alterations have been made to the forms of tender data or contract data (unless such alterations have been duly authenticated by the Tenderer) or if any particulars required therein have not been completed in all respects.</p>
F2.12	<p>No alternative tender offers will be considered</p>
F2.13.1	<p>The Tenderer may not make an offer for only part of the services as defined in the Scope of Work.</p>

Tender data contd.

Sub-clause	Data																					
F2.13.3	Parts of each tender offer communicated on paper shall be submitted as original, plus 0 copies. Under no circumstances whatsoever may the tender forms be retyped or redrafted.																					
F2.13.5	<p>The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package is: Municipal Building, 10 Fichardt Street, Sasolburg</p> <p>Location of tender box: As mentioned on the tender advertisement</p>																					
F2.15	The closing time for submission of Tender Offers is: 11:00 Hrs on 29 March 2023 Telephonic, telegraphic, telex, electronic or emailed tenders will not be accepted.																					
F2.16	The tender offer validity period is 90 days																					
F2.23	<p>Returnables</p> <table><tr><th>NO</th><th>RETURNABLES</th><th>NOTES</th></tr><tr><td>1</td><td>Form of Offer</td><td><ul style="list-style-type: none">Fully completed and signed in black ink pen.</td></tr><tr><td>2</td><td>A copy of a CSD summary report OR CSD number.</td><td><ul style="list-style-type: none">CSD full report or summary report OR CSD number and CSD unique reference nrMunicipality may not make any award to a person whose tax matters are not complaint with SARS, please note that tax compliance will be verified before any award.</td></tr><tr><td>3</td><td>Proof of company registration documents with the Director's details must be attached.</td><td><ul style="list-style-type: none">The company registration documents must indicate the company and Director's details.In a case where the Director has changed names, proof of name change must be attached.</td></tr><tr><td>4</td><td>Fully completed and signed MBD forms</td><td><ul style="list-style-type: none">Fully Completed and signed in hand writing and in black ink pen.</td></tr><tr><td>5</td><td>Fully completed Bill Of Quantity (BOQ)</td><td><ul style="list-style-type: none">Fully completed in hand writing and in black ink pen</td></tr><tr><td>6</td><td>Fully Completed and signed MBD 5 form for Bidders quoted over R10 Million (Submitted Annual Financial Statements must clearly stating that they are Audited, Reviewed AFS won't be expected)</td><td><ul style="list-style-type: none">If required by law submit Audited Financial Statements for the past 3 years or since the date of establishment if established within the past 3 years. Audited Financial Statements signed by the CA/R/PR Accountant & Director of the company (MBD 5 form)</td></tr></table>	NO	RETURNABLES	NOTES	1	Form of Offer	<ul style="list-style-type: none">Fully completed and signed in black ink pen.	2	A copy of a CSD summary report OR CSD number.	<ul style="list-style-type: none">CSD full report or summary report OR CSD number and CSD unique reference nrMunicipality may not make any award to a person whose tax matters are not complaint with SARS, please note that tax compliance will be verified before any award.	3	Proof of company registration documents with the Director's details must be attached.	<ul style="list-style-type: none">The company registration documents must indicate the company and Director's details.In a case where the Director has changed names, proof of name change must be attached.	4	Fully completed and signed MBD forms	<ul style="list-style-type: none">Fully Completed and signed in hand writing and in black ink pen.	5	Fully completed Bill Of Quantity (BOQ)	<ul style="list-style-type: none">Fully completed in hand writing and in black ink pen	6	Fully Completed and signed MBD 5 form for Bidders quoted over R10 Million (Submitted Annual Financial Statements must clearly stating that they are Audited, Reviewed AFS won't be expected)	<ul style="list-style-type: none">If required by law submit Audited Financial Statements for the past 3 years or since the date of establishment if established within the past 3 years. Audited Financial Statements signed by the CA/R/PR Accountant & Director of the company (MBD 5 form)
NO	RETURNABLES	NOTES																				
1	Form of Offer	<ul style="list-style-type: none">Fully completed and signed in black ink pen.																				
2	A copy of a CSD summary report OR CSD number.	<ul style="list-style-type: none">CSD full report or summary report OR CSD number and CSD unique reference nrMunicipality may not make any award to a person whose tax matters are not complaint with SARS, please note that tax compliance will be verified before any award.																				
3	Proof of company registration documents with the Director's details must be attached.	<ul style="list-style-type: none">The company registration documents must indicate the company and Director's details.In a case where the Director has changed names, proof of name change must be attached.																				
4	Fully completed and signed MBD forms	<ul style="list-style-type: none">Fully Completed and signed in hand writing and in black ink pen.																				
5	Fully completed Bill Of Quantity (BOQ)	<ul style="list-style-type: none">Fully completed in hand writing and in black ink pen																				
6	Fully Completed and signed MBD 5 form for Bidders quoted over R10 Million (Submitted Annual Financial Statements must clearly stating that they are Audited, Reviewed AFS won't be expected)	<ul style="list-style-type: none">If required by law submit Audited Financial Statements for the past 3 years or since the date of establishment if established within the past 3 years. Audited Financial Statements signed by the CA/R/PR Accountant & Director of the company (MBD 5 form)																				

	7	Joint Venture Agreement (Must indicate the lead partner, if the bidders grading is not the same the lead partner must have the higher grading)	<ul style="list-style-type: none"> • If applicable submit a complete and signed JV agreement. • JV agreement stating who the lead partner is with the shared percentages. • Note: JV agreement must be as per CIDB regulation of 2001 regulation 25 (5)(a),(b) and (6)
	NB! The following documents will not be accepted: for number 8, 9 and 10 <ul style="list-style-type: none"> • Affidavits; Address confirmation letter; invoices from the body corporates or agents, rates and taxes of the lessor (without a lease agreement) and municipal tender / rates clearance letter. 		
	8	Latest Municipal rates and taxes account for the COMPANY AND DIRECTORS/TRUSTEES/ MEMBERS/SHAREHOLDERS	<ul style="list-style-type: none"> • Submit strictly February 2023 or March 2023 municipal rates & taxes statement must be attached • The submitted account must not be in arrears for more than 3 months. • In a case of Rates & Taxes Account being in a family member's name, ONLY MUNICIPAL Account where the address of the Account matches the address on the company registration documents will be accepted) if not in arrears for more than 3 months.
	9	In the event of a tenant renting a lease agreement MUST be attached for the COMPANY AND DIRECTORS/TRUSTEES/ MEMBERS/SHAREHOLDERS.	<p>The lease agreement must include the following:</p> <ul style="list-style-type: none"> • A valid copy of the lease agreement must be signed by (both Lessor and lessee). • The lease agreement must indicate dates of commencement and expiry or duration. • In a case where the lease agreement has expired and there is a clause indicating an automatic renewal the original lease agreement and a confirmation letter signed by Lessor must be attached. • In the occasion where the lease agreement has expired the original lease agreement AND extension must be attached with commencement and expiry dates or duration. • In a case of lease agreement being in a family member's name, the lease agreement will be accepted if the address on the lease matches the address on the company registration documents, AND ONLY if the lease agreement is valid.
Note: If the company registration document's physical address on lease agreement or the municipal rates and taxes statement is the same as			

	<i>the Director's physical address, we will accept for both Company & Director.</i>	
	10	Municipal rates and taxes for bidders who are from the rural areas for the COMPANY AND DIRECTORS/TRUSTEES/ME MBERS/SHAREHOLDERS. <ul style="list-style-type: none">In the event that the bidder is from the rural area a letter from the municipality that the area is not liable to pay municipal rates and taxes OR a signed letter from the chief indicating that the bidder is from that particular rural/tribal area.
	11	CIDB Grading <ul style="list-style-type: none">Copy of Company CIDB Grading designation 6 CE or Higher
The following certificates/documents must be provided with the tender:		
	<u>Failure to comply with the above mentioned terms and conditions will deem your bid to be disqualified.</u> <u>Bidders must keep a copy of a completed excel spreadsheet BOQ which may be required during the evaluation processes</u>	
	Functionality Returnable <ul style="list-style-type: none">Completion certificates of similar projectsPlant Schedule and registrationsKey Staff / Personnel CVFinancial Stability	
F3.4	Opening of Tender Submissions	
F3.4.2	Tenders will be opened in public soon after closing time and recording of received documents but not later than 11:00 at the Tender office. Tenderers' names and total prices where practical will be read out	
F3.5	A two-envelope procedure will not be followed	
F3.8.2	The Employer shall reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of non-conforming deviation or reservation.	
F3.11	Tenders will be evaluated for Functionality. Tenderers who qualify for Functionality will be evaluated further for Price and Preference only. Points for Functionality will not contribute to further evaluation. Tenderers who do not qualify will not be evaluated further. Functionality will be scored out of 100 points. A Tenderer who scores less than 75 points will automatically be disqualified. The 80/20 evaluation criteria will be used where Price will be allocated 80 points and Preference will be scored out of 20 points.	

F3.11.1	The procedure for evaluation of responsive Tender Offers will be Method 4: Financial Offer, Functionality and Preferences. The responsive tender with the highest total points as defined below is the preferred tender																
F3.11.2	<p>The financial offer will be scored in terms of Formula 2, Option 1 of Table F.1 of SANS 294:2004, which reads as follows:</p> <p>$Nfo = W1 \times A$</p> <p>Where: Nfo = number of tender evaluation points awarded for the financial offer;</p> <p>W180 points for rand value less than R50 000 000;</p>																
F3.11.3	<p>(a) Functionality will include the following:</p> <table><tr><td>Functionality</td><td>100 Points</td></tr><tr><td>A. PROJECT EXPERIENCE AND PERFORMANCE</td><td>40</td></tr><tr><td>B. CONSTRUCTION PLANT</td><td>35</td></tr><tr><td>C. COMPANY KEY PERSONNEL</td><td>10</td></tr><tr><td>D. FINANCIAL STABILITY</td><td>15</td></tr><tr><td>Total</td><td>100</td></tr><tr><td>Minimum Threshold</td><td>75</td></tr><tr><td></td><td></td></tr></table>	Functionality	100 Points	A. PROJECT EXPERIENCE AND PERFORMANCE	40	B. CONSTRUCTION PLANT	35	C. COMPANY KEY PERSONNEL	10	D. FINANCIAL STABILITY	15	Total	100	Minimum Threshold	75		
Functionality	100 Points																
A. PROJECT EXPERIENCE AND PERFORMANCE	40																
B. CONSTRUCTION PLANT	35																
C. COMPANY KEY PERSONNEL	10																
D. FINANCIAL STABILITY	15																
Total	100																
Minimum Threshold	75																
	<table><tr><th>Criteria</th><th>Evaluation Indicators</th><th>Points Allocated</th><th>Weight</th></tr><tr><td colspan="3">A. PROJECT EXPERIENCE AND PERFORMANCE</td><td>MAX. POINTS 40</td></tr><tr><td>Company experience with regards to Road Construction projects</td><td><p>Required submission to claim points:</p><p>1. Project signed Appointment letter (letter must be within the past 10 years and the value of the project must be above R6 000 000.00) & corresponding reference letter or Completion certificate/ letter as a main contractor.</p><p>2. A minimum of one project must be submitted from a State/Government/ SOE. Non-submission of a state project will render any submission for experience as none responsive and Zero (00) point will be allocated for Company experience.</p></td><td>10 points per project</td><td>40</td></tr></table>	Criteria	Evaluation Indicators	Points Allocated	Weight	A. PROJECT EXPERIENCE AND PERFORMANCE			MAX. POINTS 40	Company experience with regards to Road Construction projects	<p>Required submission to claim points:</p> <p>1. Project signed Appointment letter (letter must be within the past 10 years and the value of the project must be above R6 000 000.00) & corresponding reference letter or Completion certificate/ letter as a main contractor.</p> <p>2. A minimum of one project must be submitted from a State/Government/ SOE. Non-submission of a state project will render any submission for experience as none responsive and Zero (00) point will be allocated for Company experience.</p>	10 points per project	40				
Criteria	Evaluation Indicators	Points Allocated	Weight														
A. PROJECT EXPERIENCE AND PERFORMANCE			MAX. POINTS 40														
Company experience with regards to Road Construction projects	<p>Required submission to claim points:</p> <p>1. Project signed Appointment letter (letter must be within the past 10 years and the value of the project must be above R6 000 000.00) & corresponding reference letter or Completion certificate/ letter as a main contractor.</p> <p>2. A minimum of one project must be submitted from a State/Government/ SOE. Non-submission of a state project will render any submission for experience as none responsive and Zero (00) point will be allocated for Company experience.</p>	10 points per project	40														

B. CONSTRUCTION PLANT			MAX. POINTS 35
TLB X 2	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	5 points if owned 3 point if rented	Max 10 Points
Excavator	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	10 points	Max 10 points
Grader	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	10 points	Max 10 points
Roller Compactor	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	5 points	Max 5 points
C. COMPANY KEY PERSONNEL	BIDDERS MUST SUBMIT CVs OR COMPLETE ANNEXURE A TO CLAIM POINTS		MAX. POINTS 10
Site Agent	Personnel 1- is required to attach a National Diploma qualification or higher in the Built environment and have project construction experience. NB: Submit CV and Qualifications. If no CV is attached please complete personnel form on ANNEXURE A To claim points	5 or More Projects = 5 Points	Max 5 points
Foreman	Personnel 2- is required to have projects construction experience in water and Road construction projects. NB: Submit CV. If no CV is attached please complete personnel form on ANNEXURE A To claim points	3 or more Projects = 3 Points	Max 3 points
Safety Officer	Safety officer on permanent/contract basis, with First Aid plus OHS (Construction Regulations)	2 Projects- 2 Points	Max 2 points

		qualification or related qualification with experience in construction projects of not less than two (2) projects		
		NB: Submit CV and Qualifications. If no CV is attached please complete personnel form on ANNEXURE A To claim points		
	D. FINANCIAL STABILITY			MAX POINTS 15
	Bank Rating Letter	Submit bank rating letter not older than 3 months of rating of A,B or C	15 Points	Max POINTS 15
	MINIMUM SCORE			75
	TOTAL			100

In order to qualify for the second round of evaluation the tenders must score a minimum of 75 functionality points.

The recommended bidders company personnel and completed projects may be verified before appointments can be finalised. Misrepresentation of information will lead to disqualification of the bidder and the bidder can be blacklisted on National Treasury database

For points calculation, submit the following:

RETURNABLE	NOTES
BBBE Certificate or Affidavit	Valid Certified copy of SANAS only accredited BBBEE certificate OR valid copy of BBBEE Sworn Affidavit must be attached.

NB: THE MUNICIPALITY RESERVES THE RIGHT TO VERIFY THE SUBMITTED FUNCTIONALITY DOCUMENTS

Tender data contd.

Sub-clause	Data
F3.13	Acceptance of Tender Offer
F3.13.1	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none"> a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) b) the tenderer is in good standing with SARS according to the Central Supplier Database; c) the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document d) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; e) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; f) the tenderer has not: <ul style="list-style-type: none"> i. abused the Employer's Supply Chain Management System; or ii. failed to perform on any previous contract and has been given a written notice to this effect; g) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process; h) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; i) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.
F3.17	The number of paper copies of signed contract to be provided by the Engineer is one (1).

ANNEXURE A- Site Agent

NB: Attach: Copy of qualification (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact reference No.	Project	Project Duration (Year)

ANNEXURE A - Foreman**NB: Attach: NON** (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact reference No.	Project	Project Duration (Year)

ANNEXURE A - SAFETY OFFICER

NB: Attach copy of qualification (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact Reference No.	Project	Project Duration (Year)



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02**

PART T2 : RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tender Document must be submitted as a whole. All forms must be properly completed as required, and the document shall not be taken apart or altered in any way whatsoever.

All the certificates and forms to be provided with the tender are listed in the Tender Data under F2.23: Certificates, and under the returnable schedules and forms in T2.2 hereafter.

The list of returnable documents comprises the following:

1. All the certificates listed in the Tender Data under F2.23: Certificates;
2. All the returnable schedules and forms listed in T2.2.1: Returnable Schedules Required for Tender Evaluation Purposes;
3. All the returnable documents listed in T2.2.2: Preferential Procurement Schedules and Affidavits that will be incorporated into the Contract;
4. All the agreements and forms listed in T2.2.3: Forms to be completed by Successful Tenderer;
5. All the forms and agreements in the Contract Data in C1.2, where some of the forms (agreements) need to be completed only by successful Tenderer;
6. Pricing Data in C2.2: Bill of Quantities.

T2.2 RETURNABLE SCHEDULES

NOTE: The Tenderer is required to complete each and every schedule and form listed above to the best of his ability, as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is not responsive.

SCHEDULE A: MUNICIPAL BIDDING DOCUMENTS

TABLE OF CONTENTS

Contents	Page Number
MBD 1	41 - 43
MBD 4	44 – 46
MBD 5	47 - 48
MBD 6.1	49 – 53
MBD 8	54 – 56
MBD 9	57 - 59

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE METSIMAHOLO LOCAL MUNICIPALITY					
BID NUMBER:	MLM 19/2022/23	CLOSING DATE:	29 MARCH 2023	CLOSING TIME:	11H00
DESCRIPTION	APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN BOX SITUATED AT (STREET ADDRESS)					
Metsimaholo Local Municipality					
No 10 Fichardt Street					
Finance Building					
Ground Floor					
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:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		<input type="checkbox"/> Yes <input type="checkbox"/> No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		N/A	N/A
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	MR S BILA
CONTACT PERSON		TELEPHONE NUMBER	016 973 8487
TELEPHONE NUMBER		FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

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, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS. 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA. 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS 3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

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

NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

DECLARATION OF INTEREST

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

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

- 3.1 Full Name of bidder or his or her representative:
- 3.2 Identity Number:
- 3.3 Position occupied in the Company (director, trustee, hareholder²):
- 3.4 Company Registration Number:
- 3.5 Tax Reference Number:
- 3.6 VAT Registration Number:
- 3.7 The names of all directors / trustees / shareholders / members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
- 3.8 Are you presently in the service of the state? YES / NO
- 3.8.1 If yes, furnish particulars.
.....

¹MSCM Regulations: "in the service of the state" means to be –

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

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

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

3.9.1 If yes, furnish particulars.....

.....

3.10 Do you have any relationship (family, friend, other) with persons?

in the service of the state and who may be involved with

the evaluation and or adjudication of this bid? YES / NO

3.10.1 If yes, furnish particulars.

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder

and any persons in the service of the state who may be involved with the evaluation

and or adjudication of this bid? YES / NO

3.11.1 If yes, furnish particulars

.....

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or

stakeholders in service of the state? YES / NO

3.12.1 If yes, furnish particulars.

.....

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers,
principle shareholders or stakeholders in service of the state?

YES / NO

3.13.1 If yes, furnish particulars.

.....

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.

YES / NO

3.14.1 If yes, furnish particulars:

.....

Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Number	Employee

.....

Signature

.....

Date

.....

Capacity

.....

Name of Bidder

MBD 5

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

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

1 Are you by law required to prepare annual financial statements for auditing? ***YES / NO**

2. If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years. ***YES / NO**

.....

.....

3. Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

2.1 If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.

2.2 If yes, provide particulars.

.....

.....

.....

* Delete if not applicable

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

3.1 If yes, furnish particulars

.....

.....

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?

***YES / NO**

4.1 If yes, furnish particulars

.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

MBD 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	
SPECIFIC GOALS	
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:

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

- P_s = Points scored for price of tender under consideration
- P_t = Price of tender under consideration
- P_{min} = 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:

$$P_S = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right) \text{ or } P_S = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

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

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	<p>If so, furnish particulars:</p>		

4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	<p>Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No
4.4	<p>Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	<p>Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>

4.7.1	If so, furnish particulars:
-------	-----------------------------

CERTIFICATION

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. takes all reasonable steps to prevent such abuse;
 - b. rejects the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

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

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

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

I certify, on behalf

Of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

MBD 9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

SCHEDULE B: RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communication/s, amending the tender documents, received from the Employer or his representative before the closing date for submission of this tender offer, have been taken into account in this tender offer.

ADD. No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		

SIGNATURE:

SCHEDULE C: CERTIFICATE OF AUTHORITY

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

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(i) CERTIFICATE FOR COMPANY

I,, Managing Director of the Board of Directors of, hereby confirm that by resolution of the Board (copy attached) taken on 20....., Mr/Ms, acting in the capacity of, was authorized to sign all documents in connection with this tender and any contract resulting from it, on behalf of the company.

Managing Director:

(ii) CERTIFICATE FOR CLOSE CORPORATION

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

hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with this tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iii) CERTIFICATE FOR PARTNERSHIP

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

.....

hereby authorize Mr/Ms acting in the capacity of
....., to sign all documents in connection with this
tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iv) CERTIFICATE FOR JOINT VENTURE

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms
....., authorized signatory of the company,
....., acting in the capacity of lead partner, to sign all
documents in connection with this tender offer and any contract resulting from it, on our behalf. This
authorization is evidenced by the attached power of attorney signed by legally authorized signatories of
all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME AND CAPACITY
(Lead partner)		

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

(v) CERTIFICATE FOR SOLE PROPRIETOR

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

Signature of Sole owner:

REGISTRATION CERTIFICATE / AGREEMENT / ID DOCUMENT***Important note to Tenderer:***

Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents for Sole Proprietors, all as referred to in the foregoing forms and in T2.1, must form part of this submission either separately as separate bunch of supporting documents or at the end of the this bid document and must be properly referenced.

SCHEDULE D: COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. **In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner must be completed and submitted. The questionnaires for the other partners must be inserted after this questionnaire.**

Section 1: Name of enterprise:

Section 2: VAT registration number:

Section 3: CIDB registration number:.....

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

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

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

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

Insert separate page if necessary

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

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

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

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

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

Insert separate page if necessary

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

- confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date _____

Name _____ Position _____

Enterprise Name _____



METSIMAHOLO LOCAL MUNICIPALITY

BID NO MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02**

THE CONTRACT

PART C1 : AGREEMENTS AND CONTRACT DATA
PART C2 : PRICING DATA
PART C3 : SCOPE OF WORK
PART C4 : SITE INFORMATION

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

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

BID NUMBER MLM 19/2022/23: APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02

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

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

The offered total of the prices inclusive of Value Added Tax is:

R
(In words)

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

Signature: (of person authorized to sign the tender):

Name: (of signatory in capitals):

Capacity: (of Signatory):

Name of Tenderer:
(organisation):

Address:
.....
.....
.....

Telephone number: Fax number:

Cell phone number:

Witness:

Signature:

Name: (in capitals):

Date:

ACCEPTANCE

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

The terms of the contract are contained in

Part 1 Agreement and Contract Data, (which includes this Agreement)

Part 2 Pricing Data, including the Bill of Quantities

Part 3 Scope of Work

Part 4 Site Information

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

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

The Tenderer shall deliver the Guarantee in terms of Clause 7 of the General Conditions of Contract 2004 within the period stated in the Contract Data, and he shall, immediately 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 other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

Signature:

Name:

Capacity: Municipal Manager

For: METSIMAHOLO LOCAL MUNICIPALITY
10 FICHARDT STREET, SASOLBURG, 4800

Witness:Name:

Date:

SCHEDULE OF DEVIATIONS

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter will not necessarily be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid becomes the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1. Subject:

Details:

2. Subject:

Details:

3. Subject:

Details:

4. Subject:

Details:

5. Subject:

Details:

6. Subject:

Details:

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and

amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

FOR THE TENDERER:**Signature:****Name:****Capacity:****Witness: .****Name:****Date:****FOR THE EMPLOYER:****Signature:****Name:****Capacity:****Witness: .****Name:****Date:**

C1.2 CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

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 2003 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 the 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 6.8.2: 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".

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 Metsimaholo Local Municipality
1.1.1.16	The Engineer is the firm Phecron Engineering Group (pty) Ltd.
1.2.1	<p>The Employer's address for receipt of communications is: Telephone: +27 16 973 8487 E-mail: sibusiso.bila@metsimaholo.gov.za Address (Physical): Municipal Offices, 10 Fichardt Street, Sasolburg, 4800</p> <p>The Engineer's address for receipt of communications is: Telephone: +27 76 726 4112 E-mail: bids@phecron.co.za Address (Physical) 110 Selborne Ave, Bloemfontein, 9300</p>
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..
5.3.1	<p>The documentation required before commencement with Works execution are:</p> <ul style="list-style-type: none"> • Health and Safety Plan (Refer to Clause 4.3) • Initial programme (Refer to Clause 5.6)(In PDF,MS project) • Security/Performance guarantee (Refer to Clause 6.2) • All-risk Insurance (Refer to Clause 8.6) • Personnel Curriculum Vitae • Construction Methodology
5.3.2	The time to submit the documentation required before commencement with Works execution is 14 days .

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
5.8.1	The special non-working days are holidays and the builders break as recommended by the yearly BCCEI Circular
5.13.1	The penalty for failing to complete the Works is R5000 Monetary value per day.
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 <i>NOT</i> applicable to this Contract.
6.8	Price adjustments for variations in the costs of special materials is Not applicable

.....
SIGNATURE

C1.2.3 DATA PROVIDED BY THE TENDERER

Clause 6.8.3 of the GCC 2015:

Special materials	Unit on which variation will be determined *	Rate or price for the base Month (Excl. VAT) **
Not applicable		

Notes:

* Indicate whether the material will be delivered in bulk or in containers.

** The price for special materials is only the price for the material and does not include the cost of transport, labour or any other costs. When called upon to do so, the Tenderer shall substantiate the above prices with acceptable documentary evidence.

.....
SIGNATURE

C1.3 FORM OF GUARANTEE

BID NO MLM 19/2022/23

WHEREAS **METSIMAHOLO LOCAL MUNICIPALITY** (hereinafter referred to as the Employer") entered into, a Contract with:

.....
(hereinafter called "the Contactor") on the day of 20.....,
for **APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS
AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02 .**

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

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

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

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

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



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

Signature

Duly authorized to sign on behalf of

Address
.....
.....

As witnesses:

1

2

C1.4 ADJUDICATOR'S AGREEMENT (Pro Forma only)

To be entered into when required

This agreement is made on the day of between:

..... (name of company / organisation)

of

..... (address) and

..... (name of company / organization)

of

..... (address)

(the Parties) and

..... (name)

of

..... (address)

(the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated and known as.
and these disputes or differences shall be/have been* referred to adjudication in accordance with GCC 2004, Clause 58.3, and the Adjudicator may be / has been* requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

1. The adjudication shall be conducted in accordance with the rights and obligations of the Adjudicator and the Parties as set out in the Procedure as per Clause 58.3.1 of the GCC 04.
2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure.
4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.
6. The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
7. The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to:
 - (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs.
 - (b) Telegrams, telex, faxes, and telephone calls.

- (c) Postage and similar delivery charges.
- (d) Travelling, hotel expenses and other similar disbursements.
- (e) Room charges.
- (f) Charges for legal or technical advice obtained in accordance with the Procedure.

8. The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 6 and/or item 7. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
9. The Adjudicator is/is not* currently registered for VAT.
10. Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
11. All payments, other than the appointment fee (item 8) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

SIGNED

by: _____

Name:

who warrants that he / she is
duly authorized to sign for and
on behalf of the first Party in the
presence of

Witness

Name: _____

Address: _____

Date: _____

SIGNED

by: _____

Name:

who warrants that he / she is
duly authorized to sign for and
on behalf of the second Party in
the presence of

Witness:

Name _____

Address: _____

Date: _____

SIGNED

by: _____

Name:

the Adjudicator in the presence
of

Witness:

Name: _____

Address: _____

Date: _____

* Delete as necessary



METSIMAHOLO LOCAL MUNICIPALITY

BID NO. MLM 19/2022/23

**APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02**

PART C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS

1. Measurement and payment shall be in accordance to SANS 1200.
2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kiloliter
km	=	kilometer
km-pass	=	kilometer-pass
kPa	=	kilopascal
kW	=	kilowatt
ℓ	=	liter
m	=	meter
mm	=	millimeter
m ²	=	square meter
m ² -pass	=	square meter-pass
m ³	=	cubic meter
m ³ .km	=	cubic meter-kilometer
MN	=	mega newton
MN.m	=	mega newton-meter
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional Sum
PC sum	=	Prime Cost Sum
R/only	=	rate only
Sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	work day

3. For the purpose of the 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 SANS 1200
Quantity:	The number of units of work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Lump sum:	An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).

6. The prices and rates in the Bill of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the Works described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amounts tendered under such items.
8. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
9. The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bill of Quantities.
10. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the "SANS 1200 as prepared by South African National Roads Agency Limited" and additional Project Specifications as per the Scope of Work.
12. Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bill of Quantities with the letters LI in a separate column filled in against every item so designated. The works, or parts of the Works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such Works, other than plant specifically provided for in the Scope of Work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.
13. Payment for items, which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works), will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

C2.3

BILL OF QUANTITIES

TENDER NO: MLM 19/2022/23

**METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER
IN ZAMDELA TOWNSHIP WARD 08**

SECTION A:PRELIMINARY AND GENERAL



Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
	SANS 1200A	PRELIMINARY AND GENERAL				
1	8.3	FIXED CHARGES				
1.1	PSA 8.3.1	Contractual Requirements	Sum	1		
1.2	8.3.2.1	Facilities required by Engineer:				
1.2.1	PSAB 1.1	Project name board as per drawing detail	No	2		
1.2.2	PSAB1.2	Office buildings	Sum	1		
1.2.3	PSAB2.1	Mobile Communication Devices	Prov Sum	1		R 25 000,00
1.2.4	PSAB2.1	Laptop Computer and Printer , with operating software and applications as specified by the engineer.	Prov Sum	1		R 50 000,00
1.2.5		Percentage mark-up on items 1.2.3 & 1.2.4	%	75000		
1.2.6	PSAB2.2	Survey equipment	Sum	1		
1.3	8.3.2.2	Facilities required by Contractor				
1.3.1		Offices and storage sheds, workshops and laboratories; Living accommodation, ablution and latrine facilities; Tools and equipment; Water supplies, electric power and communications.Made COVID-19 Safe	Sum	1		
1.3.2		Fixed Charge Item for the preparation of risk assessments that includes COVID-19, safe work procedures, the project H&S File, the COVID-19, H&S plan, the provision of PPE and protective clothing that comply to COVID-19 requirements, and any other H&S,COVID-19 matters that the contractor deems necessary	Sum	1		
1.3.3		Fixed Charge Item for completing and checking the Project H&S,COVID-19 File and handing over to the Client on completion of the works.	Sum	1		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
1.3.4	8.3.3	General responsibilities and other fixed-charge obligations	Sum	1		
1.3.5	8.3.4	Removal of Site establishment on Completion	Sum	1		
2	8,4	TIME RELATED CHARGES				
2.1	PSA 8.4.1	Contractual requirements	Sum	1		
	8.4.2.1	Facilities for Engineer				
		Project name board as per drawing detail	Sum	2		
	PSAB1.1	Office buildings	Sum	1		
	PSAB2.1	Mobile Communication Devices	Sum	1		
	PSAB2.1	Laptop Computer and Printer , with operating software and applications as specified by the engineer.	Sum	1		
	PSAB2.2	Survey equipment	Sum	1		
2.2	8.4.2.2	Facilities for Contractor				
2.3		Operation and Maintenance of contractor's facilities on site for the duration of the construction.	Sum	1		
2.4		Offices and storage sheds,workshops and laboratories; Living accommodation, ablution and latrine facilities; Tools and equipment; Water Supplies, electric power and communications.Made COVID-19 Safe	Sum	1		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
2,5	8.4.3	Supervision for duration of Construction	Sum	1		
2,6	8.4.4	Company and Head Office overhead for the duration of the construction	Sum	1		
2.6	8.4.5	Time Related Item for updating and amending the risk assessments, safe work procedures, the project H&S, COVID-19 File, the COVID-19 H&S plan, the provision of PPE and protective clothing that comply to COVID-19 requirements and any other H&S, COVID-19 matters that the contractor deems necessary	Sum	1		
2.7	8.4.5	Time Related Item for full compliance with all H&S, COVID-19 matters during the construction of the works under the Contract	Sum	1		
2.8	8.4.5	General responsibilities and other time related obligations	Sum	1		
	PSA 8,8	Temporary Works				
2.9	PSA 8.8.4	Dealing with Existing services	Sum	1		
2.10	PSA 8.8.3	Dealing with surface and sub-surface water	Sum	1		
2.11	PSA 8.8.2	Accommodation of Traffic for duration of construction	Sum	1		
2.12	8.8.1	Allow for providing access to all erven and properties	Sum	1		
	PSA 8.8.5	Cost of survey in terms of Land Survey Act				
		(a) Locate, record and protect erf boundary and survey pegs	Sum	1		
		(b) Replace pegs recorded as missing at commencement of Contract as well as pegs removed in terms of PSA 5.1.2 (a), (b) and c	No	10		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
3	8.7	DAYWORKS				
3.1	PSA 2	Dayworks				
3.1.1	8.7.1	Labour				
		a) Skilled	hr	10		
		b) Semi-skilled	hr	10		
		c) Un-skilled	hr	10		
3.1.2		Plant				
		Rates shall be deemed to include the cost of transportation and delivery of plants to site				
3.1.2.1	8.7.2	Tipper Trucks 15m³ (large)	hr	40		
3.1.2.1	8.7.2	LDV 1 Ton	hr	40		
3.1.2.2	8.7.2	Water Tankers 15000 litre	hr	40		
3.1.2.3	8.7.2	Loaders 15 ton large	hr	40		
3.1.2.4	8.7.2	Graders Model 200kw	hr	40		
3.1.2.5	8.7.2	Bulldozers D8 Large	hr	40		
3.1.2.6	8.7.2	Excavators 45 ton	hr	40		
3.1.2.7	8.7.2	TLB 8 ton 4x4 drive	hr	40		
3.1.2.8	8.7.2	Rollers	hr	40		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
3.1.2.9	8.7.2	Compactors(Plate and Wacker)	hr	40		
3.1.10	8.7.2	Concrete Mixers 500 litre	hr	40		
3.1.11	8.7.2	Compressors 250cfm	hr	40		
3.1.12	8.7.2	Waterpumps 100 litres/sec	hr	40		
3.2		Materials:				
		a) Allow provisional sum for materials	Prov Sum	1		R 50 000,00
		b) Allow additional markup to net cost of materials on item 3.2(a)	%	50000,00		
		Special testing of materials and workmanship:				
3.3	PSA 8.5.2	Cost of testing	Prov Sum	1		R 50 000,00
3.3.1	PSA 8.5.3	Percentage mark-up on Item 3.3	%	50000		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
3,4	PSA 8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
	8,5	Environmental Control Officer				
		a) EIA & EMP Compliance	Prov Sum	1		R250 000,00
		b) Allow additional mark up on item Environmental Reinstatement	%	250000		
		a) Extra environmental reinstatement measures, as ordered by the Engineer	Prov Sum	1		R150 000,00
		b) Borrow pit licencing and rehabilitation	Prov Sum	1		R50 000,00
		c) Percentage mark-up on a) and b)	%	200000		
	8,5	Training				
		(a) Technical skills	Prov Sum	1		R170 000,00
		(b) Accredited and approved training courses for selected Local and other Labourers including wages during training	Prov Sum	1		R80 000,00
		Sum of item a and b. Contractor's charge to allow for handling costs and profit in respect of subitem (a) & (b)	%	250000		
		c) Employment of local technicians and artisans as prescribed by municipal policies and PSC	Prov Sum	1		R168 000,00
		Contractor's charge to allow for handling costs and profit in respect of item c	%	168000		
	8,5	Community Liason Officer(C.L.O)				
		(a) Monthly Salary of Liason Officer	Prov Sum	1		R90 000,00
		(b) Percentage mark-up on item (a) above for contractor's overheads, administration charges and profit	%	90000		
	8,5	Project Steering Committee (PSC)				
		a) Allowance for PSC Stipend	Prov Sum	1		R50 400,00
		b) Allow additional markup on item (a)	%	50400		
	8,5	Mark Up for Management and Training of Micro Enterprises/Local Subcontractors	%	1100000		
	8,5	Accommodation for the Engineers Site Personnel	Prov Sum	1		R90 000,00
		Allow additional markup on item above	%	90000		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY

APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08

SECTION B: SITE CLEARANCE



Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
2.1	SANS 1200 C	SITE CLEARANCE				
2.1.1	PSC 8.2.1	Clear and grub	ha	2,08		Rate only
2.1.2	8.2.5	Take down existing fence	m			
2.1.3	8.2.6	Clear hedge or fence or both where not scheduled separately	m	10		
2.1.4	PSC 8.2.9	Transport materials and debris to dumping site identified by the Contractor(meeting all statutory requirements to be regarded as a dumping site) and approved by the Engineer.	m3.km	4500		
2.2	SANS 1200 C	DEMOLITION OF STRUCTURES				
		All material from demolishing to be transported to a Commercial Dump Site. Demolish the following:				
2.2.1	8.2.7	Cut,dismantle and remove 50mm to 300mm pipes and dispose to a dumping site indentified by the Contractor and approved by the Engineer	m	70		
2.2.2	8.2.8	Concrete Foundations and slabs to the depth: (a) 200-600mm	m ²	5		
2.2.3	8.2.8	Rip existing Asphalt & Surface of thickness not exceeding; (a) 50mm	m ²	25		
2.2.4	8.2.8	Existing concrete and brick manholes of depth a)0m - 2m	no	25		
	SANS 1200 D					
2.3	8.3.8.1(c)	Excavate by hand in all material to expose existing services as directed by Engineer.				
		a) In roadways	m ³	25		
		b) In all other areas	m ³	25		
2.4	PSLD 8.2.12	Lowering and Raising of concrete manholes by atleast 1000mm in depth	no	4		
2.5	PSD 8.3.8.2c	Relocation of existing services	Prov Sum	1		R 120 000,00
2.5.1		Allow additional markup on item 2.4	%	120000,00		
2.6	8.3.10	Topsoliling	m ²	200		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND
STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION C: EARTHWORKS



Item NO	Payment Ref	Description	Unit	Qty	Rate	Amount R
3	SANS 1200 DM	EARTHWORKS (Roads, Subgrade)				
3.1	8.3.2	TOPSOIL				
3.1.1		Remove topsoil (150mm) to stockpile /spoil on site including levelling and spreading as directed by the Engineer	m ³	2277,00		
3.2	8.3.3	TREATMENT OF ROADBED				
3.2.1		Road bed preparation and compaction of material				
3.2.2		(2) Minimum of 93% of modified AASHTO maximum density including windrow	m ³	2380,50		
3.3		EARTHWORKS				
3.3.1	8.3.5	Selected lower subgrade layer (G8 or better quality material) constructed from stockpiled material, compacted to 93% Mod. AASHTO.	m ³			Rate Only
3.3.2	8.3.5	Selected upper subgrade layer (G7 or better quality material) constructed from Borrow pit material, compacted to 95% Mod. AASHTO.	m ³			Rate Only
3.3.3	8.3.5	Selected upper subgrade layer (G7 or better quality material) constructed from imported material/commercial sources, compacted to 95% Mod. AASHTO.	m ³	2100,00		
3.3.4	8.3.4(b)	Dumprock, process and compact (from commercial source)	m ³	2752,20		
3.3.5	8.3.7	Cut to spoil or stockpile : b) Intermediate excavation	m ³	11550,00		
		c) Hard excavation	m ³	50,000		
3.3.6	8.3.11	Extra-over items 8,3,2 or 8,3,4 for temporary stockpiling of material	m ³	750,00		
3.4	8.3.2	STORMWATER CHANNELS				
		Excavate in all material for 1,2m wide x 0,09 m deep for V shaped earth stormwater channel				
4	8.3.7	Cut to spoil or stockpile : b) Intermediate excavation	m ³	86,40		
		c) Hard excavation	m ³	15,00		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND
STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION D: SUB BASE



Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
4	SANS 1200ME	SUB-BASE				
4,1	8.3	Construct gravel subbase 150mm thick as follows:				
4,2	PSME 8.3.1	With material from borrow pits and compact to 95% Mod AASHTO (Min G5)	m ³			Rate Only
4,3	8.3.2	With material from in-situ and compact to 95% Mod AASHTO (Min G5)	m ³			Rate Only
4,4	8.3.3	(b) With material from commercial sources and compact to 95% Mod AASHTO (Min G5)	m ³	2277		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER
IN ZAMDELA TOWNSHIP WARD 08
SECTION E: BASE



Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
5	SANS 1200MF	BASE				
5.1	8.3	Construct gravel subbase 150mm thick as follows:				
5.1.1	PSMF 8.3.1	With material from borrow pits and compact to 95% Mod AASHTO (Min G5)	m ³			Rate Only
5.1.2	8.3.2	(1)With material from in-situ and compact to 95% Mod AASHTO (Min G5)	m ³			Rate Only
	8.3.3	(a) With material from commercial sources and compact to 95% Mod AASHTO (Min G5)	m ³	2174		
	8.3.5	Process base material by (d) statibilization and compact to 95% Mod AASHTO	m ³	2174		
	8.3.8	Stabilizing Agent(Cement)	t	129		
CARRY TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS
AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION F: ROAD SURFACING



Item NO	Payment Ref	Description	Unit	Qty	Rate	Amount R
SECTION 6						
6	SANS 1200 MH	ASPHALT SURFACING				
6,1	8.5.1	PRIME COAT Apply prime coat of 30% stable grade emulsion at 0,8 l/m2	m ²			Rate Only
6,2	8.5.3	TACK COAT Apply tack coat of 30% stable grade emulsion at 0,8 l/m2	m ²			Rate Only
6,3	8.5.4	PREMIX Supply and lay a premix wearing course of continuously graded asphalt (TPA -Medium) using 60/70 bitumen binder (smoothness accuracy iii.to Clause 6.3.6) for thickness: 50 mm	m ²			Rate Only
	SANS 1200 MJ	SEGMENTED PAVING BLOCK SURFACING				
6,4	8.2.1	Provision of Edge Restraints	m	1050		
6,5	8.2.2	Construction of Concrete Paving complete:				
6.5.1		(a) 20mm sand or similar approved	m ³	63		
6.5.2		(b) 80mm thick interlocking blocks	m ²	16170		
6.5.3		(c) Weedkiller	m ²	16170		
6,6	8.2.3	Cutting Units to Fit Edge Restraints	m	2100		
6,70	8.2.4	Rolling to Locked-up Condition as specified by the Engineer	m ²			Rate Only
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS
AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION G: KERBING & CHANNELLING



Item NO	Payment Ref	Description	Unit	Qty	Rate	Amount R
7,1	SANS 1200MK 8.2.1	KERBING & CHANNELLING				
		CONCRETE KERBING				
		Kerbing : Precast mountable kerbing Fig 8c including all excavation, bedding, haunching etc				
		(i) Radius Range 0-4	m	10		
		(ii) Radius Range 4-20	m	14		
		(iii) Radius Range >20	m	1401		
		Kerbing : Precast Edge Beam including all excavation, bedding, haunching etc				
		(i) Radius Range 0-4	m	3		
		(ii) Radius Range 4-20	m	9		
		(iii) Radius Range >20	m	108		
		Kerbing : Precast mountable kerbing Fig 10 including all excavation, bedding, haunching etc				
		(i) Radius Range 0-4	m	3		
		(ii) Radius Range 4-20	m	9		
		(iii) Radius Range >20	m	4270		
		Kerbing : Precast mountable kerbing Fig 7 including all excavation, bedding, haunching etc				
		(i) Radius Range 0-4	m			Rate Only
		(ii) Radius Range 4-20	m			Rate Only
		(iii) Radius Range >20	m			Rate Only
7,2	8.2.5	Construct in situ concrete chutes	m	10		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION H: ROAD SIGNS AND MARKING



ITEM NO	PAYMENT Ref	DESCRIPTION	Unit	Qty	Rate	Amount
8,2	SANS 1200MM	ANCILLARY ROADWORKS - PERMANENT SIGNS				
	8.3.1	SUPPLY AND ERECT COMPLETE:				
		Statutory road traffic signs complete:				
		1. RTM1 (Stop)	No	10		
8,3		ROAD MARKINGS				
	8.4.1	Non reflectorized paint applied at nominal rate of 0.42 l/m ² or proprietary brand road marking material applied at nominal rate of 0,50 l/m ²				
		1. White lines (broken or unbroken) width 100mm	m	4270		
		2. Yellow lines (broken or unbroken) width 100mm	m	70		
		3. White lines (broken or unbroken) width 300mm	m	50		
		4. White characters and symbols	m	20		
		5. Yellow characters and symbols	m	50		
		6. Traffic Island markings (any colour)	m	60		
TOTAL CARRIED FORWARD TO SUMMARY						

METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND
STORMWATER IN ZAMDELA TOWNSHIP WARD 08
SECTION I: STORMWATER



Item NO	Payment Ref	Description	Unit	Qty	Rate	Amount R
9	SANS 1200DB	STORMWATER DRAINAGE				
9,8		STORMWATER CHANNELS				
	8.2.8	Cast-in-situ 1,2m V Concrete Lining to Open Drains	m ³	99		
	8.2.8	Cast-900 X 200mm Concrete channel with Vitaglass grating or similar approved as per drawing D010	m	90		
9,9		Formwork to Cast-in-situ Concrete Lining of Open drains				
		a) To sides with formwork on the internal face only	m ²	200		
	8.2.12	Steel Reinforcement	t	3,54		
	SABS 1200DB					
	8.3.2	EXCAVATION Note: Shoring of deep excavations are included in the rates quoted below. Excavation safety is the responsibility of the contractor. Excavate in all material for pipe trenches with inclusion of backfilling and compaction to 93% Mod AASHTO density and dispose of surplus material in commercial dump site. No material from hard or intermediate excavations exceeding 100 mm in diameter shall be used for backfilling of pipe trenches. Excavate for pipes of nominal diameter:				
		(a) 300mm -750 mm diameter				
		0-1.0m	m ³	60		
		1.0 m -2.0m	m ³	60		
		(b) Extra Over Item (a)				
		Intermediate Excavation	m ³	20		
		Hard Rock Excavation	m ³	20		
	SANS 1200 LB					
		BEDDING				
	8.2.1	Provide bedding selected from trench excavation and compacted to 93% Mod AASHTO density(P.I to be between 12 and 16) material not exceeding 6 mm in diameter	m ³	18		
	8.2.1(b)	Selected fill (compaction in 150 mm layers). First 200 mm above Concrete pipes to be filled with material not exceed 6 mm in diameter. (material P.I to be between 12 and 16)	m ³	117		
Total Carried Forward						

TENDER NO: MLM 19/2022/23

Item No	Payment Ref	Description	Unit	Qty	Rate	Amount
Brought Forward						
	SANS 1200 LE	PIPE - CONCRETE				
	PSLE 8.2.1	a) Supply and lay approved Concrete pipes 75D. For pipes of nominal diameter: 525mm	m	92		
	PSLE 8.2.8	MANHOLES				
		a) Supply and Install Brickwork Manhole as per drawing D011				
		(a) Type A (0m - 1.5m)	no	3		
	PSLE 8.2.8	KERB INLET				
		Construct remaining portion of kerb inlets including throats and transitions as per drawing D012				
		(a) 1.5m - 2m long	no	1		
	PSLE 8.2.16	Breaking into existing stormwater pipe, installing new pipe and building new manhole, 600mm sizes	no	1		
TOTAL CARRIED FORWARD TO SUMMARY						

**METSIMAHOLO LOCAL MUNICIPALITY
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED ROADS AND STORMWATER IN
ZAMDELA TOWNSHIP WARD 08**

SUMMARY

CONSTRUCTION COST		
Section	Description	Amount
A	P&Gs	
B	SITE CLEARANCE	
C	EARTHWORKS	
D	SUBBASE	
E	BASE	
F	ROAD SURFACING	
G	KERB & CHANNELLING	
H	ROAD SIGNS AND MARKING	
I	STORMWATER DRAINAGE	
	SUB TOTAL	
	10% CONTINGENCIES	
	SUB TOTAL	
	15% VAT	
	TOTAL	



METSIMAHOLO LOCAL MUNICIPALITY

BID NO MLM 19/2022/23

**ADVERTISEMENT:
APPOINTMENT OF A CONTRACTOR FOR THE CONSTRUCTION OF BLOCK PAVED
ROADS AND STORMWATER IN ZAMDELA TOWNSHIP WARD 08 PHASE 02**

C3: SCOPE OF WORK

PART C3: SCOPE OF WORKS

Pages

- C3.1 Description of the Works**
- C3.2 Engineering**
- C3.3 Procurement**
- C3.4 Construction (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 roads upgrade Infrastructure can be categorised as construction of blocked paved roads and stormwater upgrades. The aim of this infrastructure is not only to address transportation related issues but as well as the social, environment and economic issues in the Municipality.

The objective is to deliver public infrastructure using labour intensive methods where feasible. Labour-intensive works comprise the activities described in SANS 1921-5, such as, casting concrete, minor earthworks and laying of block paving activities which are to be performed by hand, and its associated specification data. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work.

The project is to be completed within of the Commencement Date (*Contractor to state time offer*)

2. OVERVIEW OF THE WORKS

2.1 Location of the Site

The location of the works is in ZAMDELA Ward 8 within the Metsimaholo Local Municipality.

2.2 General description of scope of works

Site Clearance

- Restricted excavation along road reserve

Layer works, Road works and Stormwater

- Construction of layer works from in-situ and imported materials
- Construction of roads comprising of concrete interlocking paving blocks
- Concrete kerbing, edge restraints and channelling
- Road signs and markings where appropriate
- Installation of New Stormwater inlets and outlets

Road works, unless otherwise instructed in writing by the Engineer, shall:

- Be constructed of concrete paving blocks to colour, size, thickness and patterns as specified on the formally issued construction drawings.
- Incorporate figure 10 kerbing as an edge restraint and as specified on the formally issued construction drawings.
- Not hinder access to property or building entrance/exits and shall be tied-in seamlessly without creating stormwater drainage hindrance or creating steep ramps that hinders vehicle travel.

The stormwater drainage required along the indicated streets is indicated and the existing drainage inlet structures must also be rehabilitated (by cleaning and/or partial and/or fully rebuilt), where specific structures shall be so indicated on the construction drawings.

Signage and marking for roads shall be provided as specified on the construction drawings, including relocation of existing signs and/or markings, replacement of missing or damaged signs and/or markings and provision of new (and/or additional) signs and/or markings.

Ancillary Works

- Road signs and road markings where appropriate

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

A. ROADWORKS

A.1. Geometric Design

The designated routes have been designed to provide two lane traffic.

A.2 Pavement Structure

The structural and functional capacity of the road has been designed to comply with the requirements for the appropriate category of roads.

B. 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.

C. 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 not 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 not 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 not 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.

D. APPURTENANT WORKS

Appurtenant works include the following:

a) The Painting of Road Markings.

A minimum of three weeks shall be allowed after the completion of surfacing operations before road markings are applied. The Engineer may however instruct that road markings be applied immediately in certain critical areas for reasons of safety. Provision has been made in the quantities for the re-establishment of the road marking team and the repainting of the road markings at the end of the defects notification period.

- b) The finishing off of the road reserve and other disturbed areas as ordered by the Engineer.

4. CONSTRUCTION PROGRAMME

The time for completion, as stated in the Contract Data in terms of Clause 1.1.1.14 of the Conditions of Contract, is **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 roads and stormwater.

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

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) 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.
- (vii) 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).
- (viii) The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Engineer for approval.
- (ix) 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.
- (x) 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

1. 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) unreduced paper 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.

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

3.3 PROCUREMENT

3.3.1 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 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.

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 10 people or more.

3.3.2 Subcontracting – Special Conditions of Contract

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

The Metsimaholo Local Municipality (MLM) 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

CONTENTS

C3.4.1 PART A: GENERAL

A1 GENERAL

SECTION	DESCRIPTION
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
A 10	Method Statement
A 11	Software Application for Programming
A 12	Methods and Procedures
A 13	Quality Plans and Control
A 14	Accommodation of Traffic on Public Roads Occupied By the Contractor 126
A 15	Other Contractors on Site
A 16	Testing, Completion, Commissioning and Correction of Defects
A 17	Key personnel
A 18	Management meetings
A 19	Forms for contract administration
A 20	Daily records
A 21	Payment certificates
A 22	Features Requiring Special Attention
A 23	Extension of time resulting from abnormal rainfall

C3.4.1 PART A: GENERAL

A GENERAL

A 1 Particular generic specifications

For the purpose of this Contract:

- a) where gender terms are used, it shall be applicable to both male and female.
- b) "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:

- a) 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.
- b) shall be provided with record information from services authorities to enable him to apply for wayleave at the responsible authority.
- c) is to record on as built drawings the location of existing services or services which have been relocated during Contract Period.
- d) 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).
- e) 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

a) 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.

b) 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.

c) 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.

d) 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.

e) 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 thereof. 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:

- a) Contracts manager;
- b) Site Agent;
- c) Health and Safety Officer; and
- d) 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.

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.

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:

- a) nature of the works;
- b) expected inconvenience / disruption that the consumers can expect;
- c) timeframes for construction; and
- d) 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:

- a) incorrect grades and crossfalls;
- b) poor kerbing alignment and broken kerbs
- c) incorrect vertical and horizontal alignments
- d) layerworks and surfacing fail density and other prescribed tests
- e) Incorrect pipe grades, water infiltration at joints, poor workmanship to kerb inlets, manholes, etc.

A23 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

"For the purposes of this contract, extension of time resulting from abnormal rainfall or other forms of inclement weather shall be determined according to the requirements of Method ii (critical-path method)."

Method (ii) (Critical path method)

Delete "(based on a five-day working week)" in the fifth and sixth lines of the second paragraph of the description of this method.

Delete the last sentence of the second paragraph of the description of this method and replace with the following:

"The value of "n" shall be taken as five (05) working days per calendar month.

If normal rainy or inclement weather, resulting in delays, occurs for less than five (05) working days in any calendar month, the difference between the five (05) working days and the actual number of working

days on which normal rainy or inclement weather occurred, shall be ignored and not accumulated for the duration of the contract period for the purposes of determining an extension of time due to normal rainy weather, nor due to any other reason.

Items of work on the critical path of the programme of work which are subject to climatic limitations shall also be considered for extension of time if such items of work are delayed by e.g. cold weather, high winds or other inclement weather conditions.

In this regard, reference shall be made to weather limitations specified for the application of various bituminous products. However, for months during which seal-work cannot be undertaken in terms of the specifications, no extension of time shall be claimed for.

Actual delays due to inclement weather shall be agreed between the engineer's and contractor's representatives on the site. The agreed whole days or parts thereof shall be recorded at the monthly site meetings. Adjustment to the contract period shall only be made at the end of the contract when the contractor may submit its claim for the agreed extension due as well as any additional payment resulting from the delay. Extension caused by inclement weather delays will only accrue once the agreed cumulative delays exceed 14.4 days.

If approved extensions of time extend the completion date beyond the start of the contractor's holiday in December, the holiday period shall not be considered as working days. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the contractor has shown in his programme that he intends to close during the traditional Christmas/New Year break."

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

Notes to the tenderer

**C3.4.1 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.

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;
- (a) 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 NameboardsUnit: Sum
(b) Engineers OfficesUnit: 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".

PSAB1.2 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.

(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

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 2.2 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.

PSA 8.3.2.2 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 8.3.3 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:

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

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

(iii) 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

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"

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.

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
- (a) The liquid limit of the material shall not exceed 40, neither shall the PI exceed 18.
- (b) 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:

- (a) 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.

- (b) 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.
- (c) 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.
- (d) 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.

- (e) 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.
- (f) 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.
- (g) The Engineer shall be given 24 hours' notice by the Contractor before each blasting operation is carried out.
- (h) 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 not 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 $\frac{2}{3}$ 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.

PSDM EARTHWORKS (ROADS, SUBGRADE)

PSDM 1 SCOPE

Add the following:

“This specification shall also cover the construction of the pioneer layer.”

PSDM 2 INTERPRETATIONS

PSDM 2.3 DEFINITIONS AND ABBREVIATIONS

Notwithstanding the definition of roadbed given under Clause 2.2 of SANS 1200 M, all in-situ surfaces requiring compaction as indicated on the drawings, shall be classified as roadbed.

PSDM 3 MATERIALS

PSDM 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

Notwithstanding the provisions of this Clause, the excavation of material will, for purposes of measurement and payment, be classified as specified in PSD 3.1.

PSDM 3.2.2 Fill

Notwithstanding the requirements of this Clause, material from commercial sources or borrow pits located by the Contractor, to be used in the fill, shall comply with the requirements of Clause 3.2.3 and PSDM 3.2.3.

PSDM 3.2.3 Selected layer

Replace the contents of this Clause with the following:

"The following requirements shall apply in respect of the selected layer:

- a) Maximum particle size: 60% of compacted layer thickness
- b) Unstabilised selected layer:
 - (i) Upper selected layer

Minimum CBR at 93% of modified AASHTO density: 15

Maximum PI: 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

Note:

The requirements for the upper selected layer also apply where only one selected layer is specified.

- (ii) Lower selected layer and Pioneer layer

Minimum CBR at 93% of modified AASHTO density: 7

Maximum PI: 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

PSDM 5 CONSTRUCTION

PSDM 5.1.2 Accommodation of traffic

The requirements of Clauses PSA 5.10 and PSD 5.1.6 shall apply regarding the control and temporary accommodation of traffic.

PSDM 5.2.2.2 Dimensions of cuts

Delete "suitable material7" in the fifth line and replace with "material complying with 3.2.3 and PSDM 3.2.3."

PSDM 5.2.2.3 Use of material

Add after "borrow pits" in the second line of Sub-clause (a): "or commercial sources."

PSDM 5.2.2.5 Disposal of surplus or unsuitable material

Add after "directed" in the second line of this Clause "(refer PSD 5.2.2.3)".

PSDM 5.2.3.2 Removal of unsuitable ground

Replace the second sentence of paragraph (a) with the following:

"The excavated spaces shall then be backfilled with approved imported material compacted to the required density."

Add the following sentence to paragraph (b):

"Unsuitable excavated material will be paid for as cut to spoil."

PSDM 5.2.3.3 Treatment of roadbed

Add the following to Clause (a):

"The depth of compaction shall be 150mm."

PSDM 5.2.4.3 Finishing

Notwithstanding the provisions of this Clause the requirements of PSDM 5.2.9 shall as applicable apply to the finishing off of verges.

PSDM 5.2.5 Selected layer

Replace the contents of this Clause with the following:

“Except with regard to density, the requirements of Clause 5.2.4 shall apply. The degree of compaction shall be:

Upper selected / Selected : 95% of modified AASHTO maximum density.

Lower selected : 95% of modified AASHTO maximum density.”

PSDM 5.2.8. Transport

Replace the contents of this subclause with the following:

“The provisions of Subclause PSD 5.2.5 of SANS 1200 D, as amended, shall apply.”

“PSDM 5.2.9* Trimming, shaping and rolling of verges

During the initial earthworks the verge width shall be cut or filled to approximately the final level and shall be kept trimmed and tidy during construction of the works. Where specifically ordered and after the completion of the road layers, including the surfacing, and after construction of the necessary kerbs, including the satisfactory backfilling behind the kerb, the verge shall be finished off, trimmed, shaped, rolled and compacted, to the lines and levels shown on the drawings or as specified.

The verge material shall consist of that material which would normally be occurring at that position or depth when in cut and shall not be contaminated by foreign materials such as bricks, basecourse material, horticultural inferior materials from trench excavation, etc. Verges in fill conditions are to consist of the material as specified for the fills and similarly not be contaminated with foreign materials.

Over those areas and sections of verge where grass is to be planted or where other cover is specified, the verge shall not receive the treatment (trimmed, shaped and rolled) described above.

The Contractor shall be responsible for taking the necessary precautions and measures to control the dust nuisance which may arise due to his operations on the verge, whether from the natural ground surface or topsoil layer, until the verge is accepted by the Engineer.”

“PSDM 5.2.10* Dimension and Level Control and Process Control

The Contractor shall submit to the Engineer records of dimension and level control and/or process control prior to requesting the Engineer to carry out any routine tests and/or inspections.

A sample form can be obtained from the Engineer.”

“PSDM 5.2.11* Requesting of Tests

Tests and Inspections of the works will only be carried out by the Engineer once the appropriate test/inspection request forms have been fully completed. Test/inspection request forms can be obtained from the Engineer.

PSDM 6 TOLERANCES

"PSDM 6.5* DIMENSION AND LEVEL CONTROL

The requirements of PSM 6.4 shall apply."

PSDM 7 TESTING

PSDM 7.3 ROUTINE INSPECTION AND TESTING

Replace Table 2 and the contents of Clause 7.3.2 with the following:

"The dry density requirements for a particular lot of selected layer or wearing course shall be deemed to be satisfied if the average density and the results of individual tests meet the requirements specified in Table 2 below. Refer to Clause PSD 7.2 for the requirements for fill.

TABLE 2 - DENSITIES

1	2	3	4	5
Layer	Specified density (% of modified AASHTO density)	Number of tests per lot	Average density %	Minimum density for any single test, %
Upper selected	93	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0
Lower selected layer or pioneer layer	93	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0

"PSDM 7.4* INSPECTION AND TESTING BY ENGINEER

The requirements of PSM 7.3 shall apply."

PSDM 8 MEASUREMENT AND PAYMENT

PSDM 8.1 BASIC PRINCIPLES

Add the following:

"The requirements of PSM 8.2 shall apply. The Contractor shall further make provision in the various rates for the construction of the roadbed, fill and selected layer for the cost of his own process control testing and the cost of complying with PSDM 6.5 and PSDM 7.4."

PSDM 8.2 COMPUTATION OF QUANTITIES

Replace Clauses 8.2.1 to 8.2.3 (inclusive) with the following:

"PSDM 8.2.1 The provisions of Clause 8.2.1 of SANS 1200 D shall apply.

PSDM 8.2.2 The provisions of Clause 8.2.2 of SANS 1200 D shall apply.

PSDM 8.2.3 The provisions of Clause 8.2.2 of SANS 1200 D shall apply."

PSDM 8.2.5 Verifying quantities

Replace the first sentence of this Clause "Before the work quantities" with the following:

"After the works have been set out and the area cleared (including the demolition of buildings and removal of brick and asphalt paving as well as surface obstructions), the Contractor shall allow the Engineer reasonable time to take cross-sections for the purpose of measurement and payment of cut and fill quantities. The latter being subject to the adjustments stipulated in Clause 8.2.2."

PSDM 8.3.3 Treatment of roadbed

Add the following to Clause 8.3.3(a):

"(4) Minimum of 97% of modified AASHTO maximum density: Unit :m³

Add the following paragraph to the end of Clause 8.3.3(a):

"The unit of measurement shall be the cubic metre of material recompacted as specified and the volume shall be determined from levelled cross-sections on which are superimposed the levels to which the roadbed is to be constructed. When material is imported to make up the required volume, such material will be paid for as cut or borrow to fill as relevant.

Note:

No additional payment will be made for difficult work or hand operations in confined areas.”

PSDM 8.3.7 Cut to spoil or stockpile from

Delete paragraph (b). In terms of PSDM 3.1 intermediate excavation will not be separately measured for payment.

Add the following:

"Separate items will be scheduled for cut to spoil and cut to stockpile. The rate tendered shall further cover the cost of complying with the requirements of Clause 5.2.3.2 irrespective of the depth or extent of the material ordered to be removed, or whether the order to remove unsuitable material is given after the completion of any initial cut operation.

The tendered rate shall further, in the case of cut to spoil, include full compensation for transporting the material regardless of the distance involved and for all other incidental cost to dispose of the spoil material. (Refer also PSD 5.2.2.3, PSD 5.2.5 and PSDM 8.3.12).”

PSDM 8.3.12 Overhaul

Delete this item as no overhaul will be paid on material for the purposes of this contract and all the costs for transporting material shall be included in the applicable tendered rates and amounts.

PSDM 8.3.13 Surface finishes

Replace the contents with the following:

“a) Topsoiling from on-site sources Unit: m²

The rate shall cover the cost of excavating from stockpiles formed in terms of 5.2.1 and hauling and spreading in terms of subclause 5.2.4.2 of SANS 1200 D or subclause 5.2.5.2 of SANS 1200 DA, as applicable.

b) Topsoiling from commercial sources..... Unit: m²

The rate shall cover the cost of acquiring and hauling, regardless of distance, the required topsoil material mix complete with fertiliser as specified and for spreading in terms of subclause 5.2.4.2 of SANS 1200 D or subclause 5.2.5.2 of SANS 1200 DA, as applicable.

c) Grassing or other cover..... Unit: m²

Separate items shall be scheduled for the various covers specified.
The rate shall cover the cost of acquiring and hauling, regardless of distance, the required grassing or cover specified, for applying, placing, fertilizing, constructing, watering and rolling the specified cover all in terms of subclause 5.2.4.3 of SANS 1200 D or subclause 5.2.5.3 of SANS 1200 DA, as applicable.

Grassing and other vegetation specified shall be obtained from a reputable source.

Note: This item is not applicable to quantities measured under 8.3.2(b).

d) Trim, shape and roll verge, where ordered..... Unit: m²

Measurement shall be the surface area of the verge prepared in accordance with the requirements of PSDM 5.2.9. The rate tendered shall cover the cost of all things necessary to finish off the verge as specified, including the incorporation of material to make up for material lost due to weather or other reasons. (Cut and fill to bring verge to level payment under 8.3.4).

Add the following subclauses

excavation items as applicable.”

“PSDM 8.3.18*Construct the selected layers with material from commercial sources.....Unit: m³

The rate shall cover the cost of locating the source, complying with all the relevant precautions required in terms of Clause 5.1, SANS 1200 D, procuring the material, basic selection, transporting from source to point of deposition on the road, spreading, watering, compacting, final grading, complying with the tolerances and testing.”

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 other defects. 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	:	± 25 mm provided the requirements with respect to alignment are met.
Level	:	± 10 mm 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 finish Unit : 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.

PSLE STORMWATER DRAINAGE

PSLE 3 MATERIALS

PSLE 3.1(a) Precast concrete pipes

Interlocking joint pipes (Ogee) shall be used throughout.

PSLE 3.1(d) Skewed ends

Skewed ends may be cut on site using and approved concrete saw.

PSLE 3.4.1 Bricks

Delete the first sentence, and replace with the following:

“Bricks used in stormwater structures shall be:

Burnt clay engineering bricks, having a nominal compressive strength of 28 MPa, and complying with the requirements of SABS 227.

PSLE 3.5.9* Subsoil / Flodrain Drainage System

The Flodrain system shall consist of a geonet drainage core and drainage pipe enclosed within a geotextile filter jacket. The Flodrain shall be supplied prefabricated with geopipe for assembly on site. The Flodrain shall have a minimum flow capacity of 0,19 l / s per metre (hydraulic gradient of unity and a pressure of 10 KPa) and shall not decrease in thickness by more than 20% under confining pressure of 10 kPa.

(a) Geonet Drainage Core

The core shall Kaytech Flodrain or approved equivalent, be non-corroding, rot-proof and manufactured from low density polyethylene with minimum characteristics as follows:-

Mass	:	822 g/m ²
Thickness	:	5 mm
Tensile Strength	:	2, 4 kN / m
Discharge capacity	:	3, 0 l/sec under 100 kPa at a hydraulic gradient of unity

(b) Drainage Pipe

The geopipe to be used in conjunction with the prefabricated Flodrain shall be Kaytech Geopipe or approved equivalent, manufactured from high density polyethylene with not less than 60% of the surface perforated.

Geotextile filter jacket

The geotextile filter jacket to be used in conjunction with the prefabricated Flodrain shall be, Kaytech A1 or approved equivalent, with minimum characteristics as follows:

Thickness	:	1,3 mm under 2 kPa
Permittivity	:	3/s @ 100mm head
Porosity	:	93% under 2 kPa
Throughflow	:	300 l / s / m ² head @ 100mm head
Permeability	:	3.9m/s

PSLE 5 CONSTRUCTION

PSLE 5.2.1 General

With reference to the last sentence of the second paragraph of this Clause and without limiting the Contractor's responsibility in this regard, the minimum depth of cover during construction shall be as specified by the pipe manufacturer.

PSLE 5.2.2 Pipe culverts

Add the following:

"Unless otherwise stated in the Bill of Quantities or indicated on the drawing, pipes with ogee joints shall be used. Butt ended pipes will not be permitted.

Pipes with ogee joints, where they pass under roads and also on curved pipelines in verges, shall be wrapped with two layers of Hessian soaked in cementitious grout. The wrapping shall be 400mm wide and placed centrally over each joint.

Where pipes are cut, the ends shall be made good with an epoxy concrete mix so as to prevent rusting of the reinforcement or deterioration of the concrete."

PSLE 5.5.6 Benching

Delete "granolithic plaster" and replace by "concrete topping consisting of a 1:2:3 cement, sand and 7 mm stone mix by weight. The sand proportion may be varied between 1, 5 and 2, 5 to obtain ideal workability.

PSLE 5.8* INSTALLATION OF SUBSOIL / FLODRAIN DRAINAGE SYSTEM

The geopipe shall be placed at the bottom of the geonet with the channel section of the geopipe as the invert of the drain.

The geotextile filter jacket shall then be wrapped around the geopipe and stapled/joined at 300mm intervals. The complete system shall then be placed in the trench ensuring that during backfilling the fin remains vertical.

PSLE 6 TOLERANCES

“PSLE 6.6* PIPES INTO MANHOLES / CATCHPITS

Pipes may protrude up to 300 mm into a manhole / catchpit. This relaxation will only be permitted if the pipe does not have to be cut. The “dead space” formed at the end of the manhole is to be suitably benched off to prevent the collection of silt and rubbish.”

“PSLE 6.7* “RECORD” DETAILS

The Contractor shall submit as-built/record levels, distances between manholes and the grades of pipelines for which he requires payment, at the time he submits his monthly payment claim. A sample form is obtained from the Engineer.”

PSLE 8 MEASUREMENT AND PAYMENT

PSLE 8.2.1 Supply and lay concrete pipe culverts

Notwithstanding the stated provisions, bedding will be measured for payment in terms of the appropriate clauses of SANS 1200 LB and PSLB.

Add the following:

“The tendered rate shall also cover the cost of any additional work to wrap joints as specified in 5.2.2 and caulk lifting eyes.”

PSLE 8.2.8 Supply and install manholes, catchpits, and the like Unit: No

Delete the words “but excluding excavation and backfilling, which will be measured separately” and replace with “including dealing with any excavation in all materials (including disposal of surplus) which is additional to that measured under the item for pipe trench excavation (see subclause 8.2.3 of SANS 1200 DB)”.

Add to the contents of Clause 8.2.8 the following:

“(d) Inlets (type and depth range stated)

The rate shall cover the cost and dealing with any excavation (as if in sort excavation including disposal of surplus) that is additional to the measured under the item for pipe trench excavation, the supply of all labour, plant and materials required to complete the structures as inlet channelling, building in connecting pipes, any benching required and backfilling structures.”

PSLE 8.2.17*Removing existing headwalls Unit: No

The rate shall include for all labour, plant and materials required for excavation for removing the existing headwall, loading and transporting to

a spoil site, connecting of new pipe, benching where necessary and making good around the pipe and all necessary reinstatement of the connection.

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."

PSME SUBBASE

PSME 1 SCOPE

Add the following

"All the requirements as specified for the construction of subbase shall, except where otherwise stated or ordered, apply to the stabilization of the in situ material as new subbase."

PSME 3 MATERIALS

PSME 3.2.1 Subbase material

Replace the contents of paragraph (a) with the following:

"a) The maximum particle dimension of the coarse aggregate shall not exceed 63 mm."

Replace the contents of paragraphs (d) and (e) with the following:

"(d) The CBR at 95% of modified AASHTO maximum density shall be at least 45 for unstabilised as well as for stabilised material prior to stabilisation or as directed by the Engineer.

e) The UCS at 7 days of each cement-stabilized material shall at 100% of modified AASHTO maximum density be as follows:

- For C3 cemented natural gravel : 1,50 MPa minimum
- For C4 cemented natural gravel : 0,75 MPa minimum"

With reference to Subclause d) (ii) and d) (iii), the regional factor for Port Elizabeth shall be taken as 0, 6.

PSME 3.3.1 General

Add the following to this Sub-clause:

"Where reference is made in this specification or the Standard Specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification: SABS ENV 197-1: Cement-composition, specifications and conformity criteria Part 1: Common cements.

Furthermore, where reference is made in this specification or the Standard Specifications to different cement types, the following new names shall be used as a guide but must be confirmed by the Engineer.

Cement Grade	Cement Type	Approximate old product name	New Alpha	New Blue Circle	New NPC	New PPC	New Slagment
52.5	CEM I	Rapid hardening	Rapid Hard	Duracast	Eagle Super		-
42.5R	CEM I	Rapid hardening	-	-	-		-
42.5	CEM I	OPC*	Portland Cement	Duratech	-	OPC	-
	CEM I	LASRC	-	-	-	LASRC	-
	CEM II A-S	PC15SL	-	-	Eagle Plus	-	-
	CEM II B-S	RH30SL		-	Eagle Plus	-	-
32.5R	-	-	-	-	-	-	-
32.5	CEM II A-V	PC15FA	All – purpose cement	-	-	Surebuild	-
	CEM II A-W	PC15FA	-	-	-	Surebuild	-
	CEM II A-L	-	All purpose cement	-	-	Surebuild	-
	CEM II B-V OR W	PC25FA/PFAC* *	-	Structcrete	-	Surecrete	-
	CEM II B-V OR W	PC25FA/PFAC* *	-	Duracrete	-	Surecrete	-
	CEM III A	PBFC	-	BFC	Eagle Pro	-	PBFG
	CEM III A	RHSL	-	-	-	-	RHSL
22.5	MC 22.5X	PFAC***	Multi-purpose cement	Durabuild	-	-	-
	MC 22.5X	PFAC***	-	Buildcrete	-	-	-
12.5	MC 12.5	Walcrete	Mortar cement	Walcrete	-	Masonry	-
	MC 12.5	Mortacem	-	-	-	-	-

PSME 5 CONSTRUCTION

PSME 5.1 PRECAUTIONS

Add the following to this Sub-clause:

“No stabilization shall be carried out during falling temperatures when the ambient air temperature falls below 7°C or during rising temperatures when the ambient air temperature is below 3°C.

The surface temperature of a compacted stabilized layer shall not be allowed to fall below 1°C during the first three (3) days after stabilization. The Contractor shall be responsible for taking the necessary measures in this connection, and especially to refrain from stabilizing when such temperatures become probable.

When a sudden unforeseen temperature drop to a level below this limit occurs, the stabilized layer shall be covered with the material required for the next layer to be constructed.

All stabilized layers damaged by frost or by the formation of ice in the layer shall be removed and replaced by the Contractor at his own expense.

The Contractor shall make allowance for these requirements in his construction programme, and no claims in this connection will be considered.”

The Contractor shall at all times supply all workers exposed to chemical stabilizing agents with approved protective apparel, eyewear and masks, and no person without such apparel, eyewear and masks shall be permitted to work with or be exposed to the chemical agents. Precautionary measure shall also be taken to ensure that any livestock and the public will not be exposed to the chemical agents blown by the wind or under similar circumstances”

PSME 5.2.2 Borrow pits

Insert the words “designated by the Engineer and” between the words “pits” and “established” in the first line.

PSME 5.4.1 Placing

The compacted thickness of the subbase for the various areas shall be that shown on the drawings.

PSME 5.4.4 Compaction

Notwithstanding the requirements of Clause 5.4.4.2 the subbase shall be compacted to 95% or 97% of modified AASHTO maximum density, as the case may be.

PSME 5.7 TRANSPORT

Delete the entire contents and replace with:

“The provisions and contents of subclause PSD 5.2.5 shall apply.”

PSME 6 TOLERANCES**PSME 6.1.1 General**

Add the following:

“For layers, constructed of subbase quality material, on which the bituminous surface will be placed, the tolerance for dimensions and level shall be as set out in SANS 1200 MF Subclauses 6.1.2 to 6.1.6 inclusive.”

PSME 6.3 STABILIZATION

Add the following to this Clause:

“The coefficient of variation shall not exceed 0, 3 (30%) for mixing in place and 0, 2 (20%) for plant mixed material, calculated as follows:

$$\frac{S_n}{X_n} \times 100$$

Where:

Xn is the average and Sn is the standard deviation of stabilizing content per lot”

"PSME 6.4* DIMENSION AND LEVEL CONTROL

The requirements of PSM 6.4 shall apply."

PSME 8 MEASUREMENT AND PAYMENT**PSME 8.1 BASIC PRINCIPLES**

Insert a semi-colon in the first line of paragraph b) after the words "will be paid for once only" and delete the rest of the paragraph.

Replace the contents of paragraph c) with the following:

“c) that except as provided for in d) below, the freehaul will be that specified under subclause 5.7 (as amended).”

Add the following to paragraph d):

"A commercial source shall be held to include any off site sources or borrow pits selected the Contractor.

Further, no additional payment will be made for the temporary stockpiling of material from commercial sources, the class of excavation, method of processing (except stabilizing) or for overhaul.”

Add the following:

- "e) The requirements of PSM 8.2 shall apply. The Contractor shall further make provision in the rates tendered for the construction of the subbase, for the cost of his own process control testing and the cost of complying with PSME 6.4."

Replace the contents applicable to subitem (a) of Clause 8.3.2 with the following:

"The rate for (a) shall include full compensation for excavating and selecting subbase material, for loading and transporting the material within the free-haul distance, and for either placing the material on the road or stockpiling the material for later use. When material is stockpiled, the rate shall include compensation for shaping and grading the stockpile so that it is free-draining."

PSME 8.3.1 Construct the subbase course/shoulders/gravel wearing course with material from commercial sources or designated borrow areas

Replace the heading of Clause 8.3.3 with the following:

"8.3.3 Construct the subbase course/shoulders/gravel wearing course with material from commercial sources..... Unit: m³

Add the following:

"This item shall also apply to the construction of subbase course/shoulders/gravel wearing course with material from borrow pits selected by the Contractor.

No additional payment will be made for difficult work or hand operations in confined areas.

The rate tendered for subbase shall further differentiate between subbase beneath vehicular trafficked areas (rank and roadways) and subbase beneath pedestrian trafficked areas."

PSME 8.3.9 Overhaul (haul exceeding 2 km)

Delete the entire clause. The terms, provisions and principals of 8.1 and PSME 8.1 shall apply.

PSMF BASE

PSMF 3 MATERIALS

PSMF 3.3 PHYSICAL AND CHEMICAL PROPERTIES

PSMF 3.3.1 Natural gravel (stabilised or unstabilised)

Replace the contents of paragraph (a) with the following:

"(a) The maximum particle dimension of the material shall not exceed 63 mm."

PSMF 3.3.2 Graded crushed stone

Add the following after the words SANS 1083:

"for 37,5 mm stone".

PSMF 5 CONSTRUCTION

PSMF 5.4.1 Placing

Add the following:

"The compacted thickness of the base shall be as indicated on the drawings."

PSMF 5.4.4.2 Compaction

Delete 98% and 97% and replace with 102%.

Add the following:

"c) Where the compaction specified is in apparent density, the base material shall be compacted to 86% of apparent density which shall determined as follows:

(i) Apparatus

- Balance to measure 5 kg accurately to within 0,5 g
- Pycnometer (e.g. a preservative jar with a flat ground rim)
- Temperature-controlled bath with thermostat capable of maintaining the temperature at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$
- Thermometer ($0^{\circ}\text{C} - 100^{\circ}\text{C}$)
- Drying oven capable of maintaining temperatures between 105°C and 110°C
- Towels
- 10% Teepol solution

(ii) Method

Take 3 000 g to 4 000 g of the material from a density hole in the road. All the material obtained from the hole should preferably be used. If there is too much for one pycnometer, the material may be divided between two pycnometers.

Dry the material to a constant mass in an oven at 105°C to 110°C.

Ensure that the pycnometer is clean, and determine its mass together with that of a marked sheet of glass.

Place the dried sample in the pycnometer and determine the combined mass of the pycnometer, glass sheet and sample. (The sample should not be more than half the pycnometer's volume.)

Add clean water at a temperature of 25°C to the pycnometer until it is approximately three quarters full.

Add three drops of the 10% Teepol solution to the water, close the pycnometer and shake thoroughly for 1 to 2 minutes.

Fill the pycnometer to near the brim with water at a temperature of 25°C and place it in a thermostatically controlled bath at 25°C. Leave for 30 minutes without disturbing.

Remove the pycnometer without shaking or jarring it and place it on a spread towel. Fill with water at a temperature of 25°C and slide the glass sheet carefully over the brim from one side. Make sure that no air bubbles are trapped beneath the glass sheet. Dry the pycnometer and the glass sheet carefully all over and determine the mass of the filled pycnometer plus the glass sheet.

Remove the contents of the pycnometer and clean and fill it in the same manner with water at a temperature of 25°C. Dry the pycnometer and determine the mass of the pycnometer filled with water together with the glass sheet.

(iii) Calculation

The apparent density of the material is calculated as follows:

Mass of pycnometer + glass sheet = a

Mass of pycnometer + glass sheet + material = b

Mass of material only = (b - a)

Mass of pycnometer + material + water +
glass sheet = c

Mass of pycnometer + water + glass sheet = d

Apparent density of material
(c - b)} = (b - a)/{(d - a) -

NOTES:

- (1) Do not add any chemicals other than the Teepol solution to the water.
- (2) No suction should be applied to the water to remove air.
- (3) The temperature of the water should be 25°C ± 1°C and no other temperature should be used.
- (4) When two pycnometers are used, the apparent density is calculated from the weighted average of the two results."

PSMF 5.9 TRANSPORT

Replace the contents of this Clause with the following:

"All movement of material will be considered as free-haul. No haulage cost will be paid."

PSMF 6 TOLERANCES

PSMF 6.1.2 Grade

Delete the contents of Clauses (a) and (b) and replace by "the height of the edge of the channel above the top of the completed base is not less than the minimum thickness of asphalt surfacing, i.e. 5 mm less than the specified thickness. (Refer subclause 6.3.4 of SANS 1200 MH)"

PSMF 6.1.5 Cross-section

Replace "25 mm" in the second line of this subclause with "10 mm".

PSMF 7 TESTING

PSMF 7.3.2 Routine inspection and testing

Replace subclause 7.3.2 with the following:

"The density measured at all test holes shall be a minimum of 102% of modified AASHTO maximum density for the lot to be acceptable."

Add the following new subclause:

“7.3.3 Where the compaction specified is in apparent density, the contents of 7.3.2 shall apply but Table 4 shall be replaced with:

TABLE 4 - APPARENT DENSITY OF BASE

Specified apparent density, %	Number of tests per lot	Minimum average density, %	Minimum value for any single test, %
86	4	86,1	82,7
	5	86,4	82,6
	6	86,5	82,4
	7	86,7	82,3
	8	86,8	82,2
	9	86,9	82,1

“

PSMF 8 MEASUREMENT AND PAYMENT

Replace the heading of Clause 8.3.3 with the following:

“PSMF 8.3.1 Construct base with material from commercial sources compacted to 102% of modified AASHTO maximum density”

Add the following:

“No additional payment will be made for difficult work or hand operations in confined areas.”

PSMF 8.3.9 Overhaul

Delete the contents and replace with:

“The terms, provisions and principals of subclause 8.3.9 of SANS 1200 ME and PSME 8.3.9 shall apply.”

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 screedm²

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 "

PSMK KERBING AND CHANNELLING

PSMK 2 INTERPRETATIONS

PSMK 2.3 DEFINITIONS

Add the following definitions:

“Backing The supporting concrete behind the edge of the precast kerb, as shown on the drawings and PSMK 2.

Screed Screed shall have the corresponding meaning as bedding material, Refer PSMK 3.9.”

PSMK 3 MATERIALS

PSMK 3.2.1 General

Replace the contents of this Clause with the following:

“Refer to the Drawings as well as the NMBM’s Standard Infrastructure Details for kerb and channel details.”

PSMK 3.7.2 Concrete

Notwithstanding the requirements of this Clause, the Contractor shall take note that the acceptability of extruded kerbing and channelling will be evaluated on the basis of the compressive strengths of cores taken. The Contractor shall therefore at his own discretion increase the grade of concrete used.

PSMK 3.8 CURING COMPOUND

Notwithstanding the provisions of this Clause, the requirements of PSGA 3.8 shall apply.

PSMK 3.9 BEDDING MATERIAL

Replace the contents with the following:

"The material on which precast concrete kerbs and channels are bedded shall consist of a 1 to 8 cement sand mix, or class 20/19 concrete where the layer is more than 30 mm thick. Refer also PSMK 2”.

"PSMK 3.10* CONCRETE FOR EDGING STRIPS

The requirements of Clause 3.7 and PSMK 3.7.2 shall apply to concrete for edging strips."

PSMK 5 CONSTRUCTION

PSMK 5.1 EXCAVATION AND BEDDING

Delete the first paragraph viz. "Trenches for grade."

PSMK 5.2 PRECAST CONCRETE KERBING AND CHANNELLING

Replace "50 mm" in the second line with "10 mm minimum". For bedding more than 30 mm thick, the requirements of PSMK 3.9 shall apply.

Replace "15 MPa" in the last line with:

"(Class 20/19 concrete)"

"PSMK 5.2.1* Precast Concrete Kerbing and Cast-in-situ Concrete channelling"

After the precast kerbs have been laid to formwork for the channelling shall be set up. Expansion joints shall be allowed for at approximately 8 metres intervals, i.e. opposite the joint between the kerbs. The principles of Clause 5.4 shall apply to the construction of cast-in-situ channelling.

PSMK 5.8 MACHINE-LAID CAST-IN-SITU (EXTRUDED) KERBING AND CHANNELLING

Before commencing kerb laying on the site, the first 50m length of kerb and channel to be constructed shall be regarded as trial kerb and channel. The Contractor shall demonstrate in the trial length the methods he proposes to use for the construction of the kerb and channel, including joints, texturing, the achievement of a smooth surface and dense fully compacted concrete. It may be constructed either in the recognised position in a road or elsewhere on the site in which case it shall be demolished, broken out and removed at the Contractor's expense.

The trial kerb and channel shall be constructed with the plant and equipment to be used on the works and the equipment's motion forwards and the handwork carried out on the extruded section shall be so controlled and used as to produce a kerb and channel to the shape, lines and levels specified.

The time taken to lay the test strip shall be recorded, which in the event of acceptance, shall be used to calculate a rate of extrusion which shall not be exceeded without the permission of the Engineer.

If the concrete in the trial strip fails to meet the test requirements, the Contractor may, at his own cost, cut further cores from the kerb and or channel up to a maximum of one core per 100m length. The strengths obtained on such cores, together with those tested on the instruction of the Engineer, shall be used to test compliance with the strength requirements.

The Contractor may, unless advised of any deficiencies in the trial kerb and channel, proceed with kerbing as soon as acceptable core test results are obtained.

In the event of deficiencies in the trial kerb and channel, the Contractor shall, at his own expense, demolish the rejected sections and remove to the designated tip site and repeat the 50m long trial strip. This process shall be continued until the Contractor has produced kerb and channel in accordance with this specification. He may then proceed with kerb and channel construction proper. Any unacceptable trial length shall be broken out and removed to spoil, at the Contractor's expense before any subsequent trial length is permitted to commence.

Core test holes shall be filled with 30 MPa concrete mixed with a suitable adhesive compound.

No other means of testing the concrete will be considered and any kerb or channel not complying with all the requirements of the specification shall be broken out, removed to spoil and replaced at the Contractor's own expense.

The Contractor shall ensure that no change of circumstances or conditions is made to jeopardise the quality of the kerb and channel under construction. If, in the opinion of the Engineer, this does occur, he may order the construction of a further trial length of 50m of kerb and channel in accordance with the requirements of this specification. Work on the kerb and channel proper shall not proceed until a trial strip has been constructed in accordance with the requirements of this specification. No claims for delays will be considered by the Engineer on account of further trial lengths of kerbing being ordered.

PSMK 5.8.3 Subbase preparation

Delete in the first line from: "500 mm beyond" to "as relevant" and replace by "150 mm beyond the back face of the kerb". Note this dimension applies to the compaction width required for the road layer.

Notwithstanding the provisions of this Clause, where kerbing and channelling is to be constructed along existing travelled ways, the material at the founding level shall be trimmed to the required line and level and compacted to give a firm surface.

PSMK 5.8.5 Curing

Notwithstanding the provisions of this Clause, curing shall be carried out in accordance with the requirements of PSGA 5.4.7.

PSMK 5.11 TRANSITION SECTIONS AND INLET AND OUTLET STRUCTURES

Delete the words "and with the requirements of the Project Specification" in the second paragraph.

"PSMK 5.13*PRECAST CONCRETE KERBING AND CAST IN SITU CONCRETE CHANNELLING

Precast concrete kerbing and cast in situ concrete channelling shall be constructed in accordance with the details shown on the drawings and the applicable requirements of Clauses 5.2 to 5.10.

The formwork for the channelling shall be set up after the precast kerbs have been laid. The channelling shall be cast in alternate sections approximately 2m in length and the construction joints so formed shall coincide with joints in the precast kerbing, except that an expansion joint in lieu of a construction joint shall be provided at approximately 8m intervals. Where applicable, expansion joints in the channelling shall coincide with those in the precast kerbing."

"PSMK 5.14*EDGING STRIPS

Edging strips shall be constructed in accordance with the details shown on the drawings and the applicable requirements of Clauses 5.2 through to 5.10."

The formwork for the channelling shall be set up after the precast kerbs have been laid. The channelling shall be cast in alternate sections approximately 2m in length and the construction joints so formed shall coincide with joints in the precast kerbing, except that an expansion joint in lieu of a construction joint shall be provided at approximately 8m intervals. Where applicable, expansion joints in the channelling shall coincide with those in the precast kerbing."

PSMK 6 TOLERANCES

PSMK 6.1 CONCRETE KERBING AND CHANNELLING

Replace the permissible deviation "0, -10" applicable to item b (1) with " ± 10 ".

Add to item b (1):

"provided the base layer thickness is not prejudiced and no adverse grade results."

PSMK 7 TESTING

PSMK 7.2.2 Alternative tests

Delete in Clause 7.2.2.2 all references to cubes and cube testing.

Add to second line of Clause 7.2.2.2 after “SABS Method 865” the following:

“The numerical value of the compressive strength of the core used for adjudication shall be that value determined in accordance with Clause 6.3 of SABS Method 865.”

Delete in fourth line of Clause 7.2.2.2: “22 MPa (i.e. less than 25 - 30 MPa)” and replace by: “20 MPa”.

PSMK 7.3 RESPONSIBILITY FOR COSTS OF TESTING, ETC

Delete this Sub-clause.

PSMK 8 MEASUREMENT AND PAYMENT

PSMK 8.1 BASIC PRINCIPLES

Replace the second sentence of Clause 8.1.1 with the following:

"Deductions will be made for transition kerb and channel pieces, structures and pedestrian slopes, which will be measured separately."

Replace the heading and amend the contents of Clause 8.2.1 as follows:

PSMK 8.2.1 Concrete kerbingUnit: m

Add after “and for bedding” in the second line of Clause (b), “irrespective of variations to the thickness of the bedding”.

Replace "7.2" in the second line of Clause (b) with "7.1".

Add at the end of Clause (b) “as well as for the supply and placing of the class 20/19 concrete backing, irrespective of variations to the thickness of the backing”.

Replace “5.8.2” in the third line of Clause (e) with the following: “5.8.3”

Replace “1000m” in the second last line of Clause (e) with “600m”

Delete the following in the second last line of Clause (e):

“and as specified in clause 7.2”

PSMK 8.2.2 Concrete kerbing and channelling combinedUnit: m

Add: “Acceptance of work that is substandard in measured compressive strength shall be subject to reduced payment at the following percentages of the tendered rate for the item.

Measured compressive strength of individual core % of full payment	
15 MPa up to 20 MPa	20

Less than 15 MPa

Nil"

Replace the heading and contents of Clause 8.2.3 with the following:

PSMK 8.2.6.1 Ancillaries

Add to Clause 8.2.6.1: "The unit of measurement of 2 metre length of kerb and channel transition between mountable and barrier type kerb and channel and between mountable or barrier type and the precast support kerb at the catchpit shall be per number."

PSMK 8.2.15*Construct concrete pedestrian slope complete as shown on PSMK 8/7 Unit: No

The unit of measurement shall be the number of pedestrian slopes constructed as detailed on PSMK 8/7 and shall include all transition pieces, sunken kerbs and channelling. The average width of the road for the motor slope can be taken as 5,5 meters.

The rate tendered shall cover the cost of all labour, materials, plant and incidentals required to construct the concrete sloped area as detailed on PSMK 8/7 inclusive of all excavations, for supplying 150mm subbase quality material from commercial sources compacted to 95% of modified AASHTO maximum density placing to the required levels, watering, shaping and compaction, supplying and placing concrete, forming of joints, screeding, surface finishes as well as for the disposal of all surplus and waste material.

PSMK 8.2.16*Construct residential concrete motor slope complete as shown on PSMK 8/6 Unit: No

The unit of measurement shall be the number of residential motor slopes constructed as detailed on PSMK 8/6, based on a ramp width of 3 m, and shall include all transition pieces, sunken kerbs and channelling.

The rate tendered shall cover the cost of all labour, materials, plant and incidentals required to construct the concrete sloped area as detailed on PSMK 8/6 inclusive of all excavations, for supplying 150mm subbase quality material from commercial sources compacted to 95% of modified AASHTO maximum density placing to the required levels, watering, shaping and compaction, supplying and placing concrete, forming of joints, screeding, surface finishes as well as for the disposal of all surplus and waste material.

An extra-over payment item shall be provided to allow for motor slopes with additional ramp widths.

PSMM ANCILLARY ROADWORKS

PSMM 3 MATERIALS

PSMM 3.2 ROAD SIGNS

PSMM 3.2.1 General

Replace “South African” with “SADC” in the first sentence.

Replace “Council for Scientific and Industrial Research” in footnote 1 with “Government Printer”.

PSMM 3.2.2 Structural steel

Delete the words "except that they shall be of D-shape cross-section" in the first paragraph.

Add the following:

"All steel sign supports shall be hot-dip zinc coated (galvanised) in accordance with SANS 763 for type A1 or B2 articles, as may be applicable."

PSMM 3.2.4 Steel plate

Replace the entire contents of this Clause with the following:
“

a) Steel plate

Steel plate for road signs shall be 1,40 mm thick prepainted galvanized steel plate (Isacor G275 Chromadek or approved equivalent), which has been treated on both sides with an epoxy primer followed by a silicone polyester top coat. The total dry thickness of the treatment shall be at least 25 µm.

The reverse side of a stop sign and all its derivatives shall be painted white. The reverse side of all other signs shall be dark grey.

Where a reflectorised road sign is required, its reverse side shall be painted with a dull grey prime coat and the face with only the specified top coat.

b) Steel Profiles

Standard sign profiles shall be 200 mm sections with a thickness of 1,0 mm, manufactured from prepainted galvanized mild steel substrate (Isacor G275 Chromadek or approved equivalent), and shall comply with the details on the drawings."

PSMM 3.2.8 Paints and protective coatings

PSMM 3.2.8.1 Structural steel sign supports and sign face frames

Replace the contents of this Clause with the following:

“The reverse side of all R1 Stop-signs and all its derivatives shall be painted white. The backs of all other road sign faces shall be painted dark grey. The colour code of the paint shall be code No G13 according to the SANS 1091 classification.

No galvanised steel supports shall be painted. All surface damage to galvanising shall be made good with a proprietary galvanising product.”

PSMM 3.2.9 Retro-reflective material

Delete subclause 3.2.9 and replace with:

“Retro-reflective material shall be supplied in the following grades and shall comply with the requirements of SABS 1519 and the adhesion requirements of CKS 191:

- Class I material – 7 year warranty grade
- Class II material – 10 year warranty grade
- Class III material – 15 year warranty grade
- Class IVB material – 15 year warranty grade

The specific commercial product used shall be subject to the approval of the Engineer.

No materials from different manufacturers shall be overlaid without specific approval of the Engineer and subject to such conditions as the Engineer shall impose.

Each sign shall be completed with the retro-reflective material from one and the same roll. No sign shall be manufactured from retro-reflective material from different rolls.

The material shall be supplied with a pressure sensitive or heat applied adhesive backing protected by a removable lining. The adhesive backing shall be applied to the sign face in strict accordance with the retro-reflective material manufactures specifications.”

PSMM 3.2.12* Street Name Boards

Street Name Boards shall be as specified on NMBM Municipal Standard Detail Drawings PSMM 54.

PSMM 3.3 ROAD MARKING MATERIALS

PSMM 3.3.1.1 Non reflectorised paint

Replace “SABS 731” with “SANS 731-1 : 1995”

Add the following:

“The paint shall be Type 1, 2 or 3 and shall be of a drying classification Class 1 in accordance with SANS 731-1”. The paint shall be Plascon Hysheen Road and Runway Marking Paint Products TP24, 41 or 88 or similar approved.

The possible use of Plascon Hysheen Aquafest Road Marking Paint WTP1 as the final application on-site shall be considered at the end of the Defects Liability Period”.

PSMM 3.3.1.2 Reflectorised paint

Replace this Clause with the following:

“Reflectorised paint shall comply with the requirements of PSMM 3.3.1.2 as well as the retro-reflectivity requirements set in SANS 731-1 paragraph 4, 17.3 for new markings.”

PSMM 3.3.1.3 Colour

Delete in the first line from “white or an acceptable match” and replace with:

“G80 Cloud White, B49 Golden Yellow and A11 Signal Red as shown in SABS 1091.”

PSMM 5 CONSTRUCTION

PSMM 5.2 ROAD SIGNS

PSMM 5.2.1 Manufacturing

PSMM 5.2.1.2 Backing plates and boards

Add in the first sentence after “drawings” the following:

“and SADC Road traffic signs manual, Volume 4 to comply with the National Road Traffic Regulations, 2000.”

Delete “...steel plate...” in second sentence and replace with:

“1, 40 mm thick prepainted galvanized steel plate (Isco G275 Chromodek or approved equivalent), 1 mm thick 200 mm prepainted galvanized mild steel profiles (Isco G275 Chromodek or approved equivalent),”

Add the following:

“The contractor shall make every effort to ensure that signboards are correct in all respect and before dispatching the boards from the manufacturer’s factory shall provide the Engineer with a 100 mm x 150 mm colour photograph of each sign face for approval of the correctness of the legend. Such approval will not imply final acceptance of the board. If the Contractor is in any doubt as to the correctness of the sign detail, the sign designer shall be contacted for verification.

Chromadek section shall be assembled in accordance with the details on the Drawings.

Where the letter or legends cross the horizontal joints of the sign panels, the letter shall be cut on the joint and both ends folded around the radius.

Retro-reflective material to adjoining Chromadek panels on a sign shall be a practical visual match of the specified colour.”

PSMM 5.2.2.5 Painting of road signs

Delete the entire Clause and replace with the following:

“All sign faces shall be faced with retro-reflective material. Painted front sign faces shall not be used.

Where applied to Chromadek sections, retro-reflective material shall be applied as specified in Clause PSMM 5.2.12 of this project Specification.”

Road sign boards shall be manufactured by a recognised manufacturer of road signs.

Retroflexive material shall be affixed to the road sign board face in strict accordance with the requirements and specifications of the retro reflective sheeting manufacturer.

No silk-screening of road sign faces shall be acceptable other than the screening of black symbols on Regulatory or warning signs.”

PSMM 5.2.4.2 Erection

Add the following:

“Vertical clearances for all signs shall be at the preferred height of 2.1 m unless otherwise specified on the design drawings.”

PSMM 5.3 ROAD MARKINGS

PSMM 5.3.2 Surface preparation

Insert the following before the last sentence:

“The areas where new markings shall be painted shall be thoroughly cleaned by acid pickling with a diluted product like Aquasolv Degreaser or similar, scrubbing with a steel brush and rinsing it with fresh water.

All run-off shall be intercepted and treated prior to wasting into a stormwater system. No paint shall be applied on wet or untreated concrete surfaces. The need to apply a primer prior to the application of the paint shall be assessed before the final markings are applied.”

Add the following:

“At the end of the Defects Liability Period the markings shall be repainted on cleaned and degreased surfaces in accordance with the paint manufacturer’s specifications.”

PSMM 5.3.3 Setting out of road markings

In the second paragraph, replace “Road Traffic Ordinance”, and “South African” with (National Road Traffic Regulations, 2000” and “SADC” respectively.

PSMM 5.5* STREET NAME BOARDS

Poles shall be erected at the positions shown on the drawings and name blades attached as ordered. The correct spelling of the names of the streets, etc. to appear on the blades will be supplied in writing by the Engineer.

PART E PROVISION OF THE TEMPORARY WORKFORCE

CONTENTS

E1	SCOPE
E2	INTERPRETATIONS
E3	PERMITTED SOURCES OF TEMPORARY WORKERS
E4	EMPLOYMENT RECORDS TO BE PROVIDED
E5	VARIATIONS IN WORKER PRODUCTION RATES
E6	TRAINING OF THE TEMPORARY WORKFORCE
E7	RECRUITMENT AND SELECTION PROCEDURES
E8	TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
E9	LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
E10	THE SUBCONTRACTORS' WORKFORCES
E11	MEASUREMENT AND PAYMENT

E1. SCOPE

This Specification covers the provisions and requirements relating to the provision of the temporary workforce.

E2. INTERPRETATIONS

E2.1 Supporting Documents

The Tendered Rules, Conditions of Contract, Standard and Construction Specifications, Drawings and statutory minimum requirements relating to the employment and remuneration of labour shall *inter alia* be read in conjunction with this Specification.

E2.2 Definitions and abbreviations

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Construction Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

(i) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or Subcontractor's operation

(ii) "Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at

the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract

(iii) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract

(iv) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like

(v) "Workforce" means the aggregate body comprising of all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors

(vi) "Liaison Officer" means a representative from the temporary workforce, duly elected by them, to act on their behalf and through whom all matters pertaining to the temporary workforce can be channelised.

E2.3 Status

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

E3. Permitted Sources Of Temporary Workers

The Contractor shall as far as possible make optimum use of the human resources outside his own workforce and the workforces of all Subcontractors. The temporary workforce which is to be used in the execution of the Works in terms of Part A may consist of the workers of various communities, and shall not be bound to one particular community.

E4. EMPLOYMENT RECORDS TO BE PROVIDED

The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities which have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the Engineer.

The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited

documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

E5. VARIATIONS IN WORKER PRODUCTION RATES

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his Tendered.

E6. TRAINING OF THE TEMPORARY WORKFORCE

Selected members of the workforce are to be provided with structured training in accordance with the provisions of Part F.

The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such structured training and shall comply fully with the requirements of Part F.

The provision of structured training as described in Part F shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part F, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

E7. RECRUITMENT AND SELECTION PROCEDURES

The Contractor through the Project committee shall be fully responsible for the recruitment and selection of workers to constitute the temporary workforce.

The Contractor shall advise the Engineer in writing of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognisance of the provisions of the Contract relating to training).

The Contractor shall, at his own cost, take all necessary actions to advertise within the communities comprising the personnel resources, the fact that temporary employment opportunities exist and the time and place where recruiting will occur. This shall include making contact with the local ward councillors and or labour forums that may exist. Delays in obtaining temporary workers shall not be accepted as reasonable grounds for seeking an extension of time claim.

The Contractor shall record in writing, the details of all persons applying for employment, including *inter alia*:

- (i) Name, address, age and sex
- (ii) Marital status and number of dependants
- (iii) Qualifications and previous work experience (whether substantiated or not)

- (iv) Period since last economically active
- (v) Preference for type of work or task.

The Contractor shall make his selection of workers from amongst the applicants, taking due cognisance of his requirements for the workforce and the provisions of the contract in regard to the provision of training to the workforce and in accordance with the following principles:

- (i) No potential temporary worker shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless -
 - all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or
 - The Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.
- (ii) Preference shall be given to the unemployed and single heads of households.
- (iii) The Contractor shall, in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected.

(iv) The selection process shall not be prejudicial to youth (over the age of fifteen years) and women. After making his selection, the Contractor shall advise the Engineer thereof, in writing and the Engineer shall, without undue delay, ratify the Contractor's selection.

The provisions of this clause shall apply *mutatis mutandis* in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the Contract.

The Contractor shall, after selecting his temporary workforce, arrange at his own cost for the appointment of the Liaison Officer as representative of the workforce to act on their behalf with regards to all matters pertaining to the workforce.

E8. TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

E8.1 All temporary workers engaged in accordance with the provisions of the Construction Specifications, shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.

E8.2 The Contractor shall pay to all temporary workers engaged in terms of Part A of the Construction Specifications, not less than the minimum rate of remuneration as specified by the Department of Labour for the free State area.

E9. LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES

The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.

The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.

In the event of any temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his terms of employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor by one member of the temporary workforce and one member of the Project Committee, which persons shall be nominated by the worker.

In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.

E10. THE SUBCONTRACTORS' WORKFORCES

The provisions of this Part F shall apply *mutatis mutandis* to the workforces employed by all Subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all Subcontractors.

The Contractor shall at his own cost and to the extent necessary, assist and **monitor all Subcontractors in the application of the provisions of this Specification, and shall**, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all Subcontractors, in respect of the application of the provisions of this Specification.

E11. MEASUREMENT AND PAYMENT

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Construction Specifications shall, except to the extent provided for in Part F as relevant, be deemed to be included in the rates tendered for the various items of work listed in the Bill of Quantities.

PART F: PROVISION OF STRUCTURED TRAINING

CONTENTS

F1	SCOPE
F2	INTERPRETATIONS
F3	ENGINEERING SKILLS TRAINING
F4	ENTREPRENEURIAL SKILLS TRAINING
F5	MEASUREMENT AND PAYMENT

F1. SCOPE

This specification covers the requirements for the provision of the following training:

- (i) Specified structured training to selected members of the workforce and small, medium and micro enterprises (SMME's) by a selected Subcontractor as appointed by the Employer.
- (ii) Additional training deemed necessary by the Contractor, to members of the workforce and small, medium and micro enterprises (SMME's).

F2. INTERPRETATIONS

F2.1 Supporting documents

The Tendered Rules, Conditions of Contract, Standard, Supplementary and Specific Specifications and Construction Specifications and drawings shall *inter alia* be read in conjunction with this specification.

F2.2 Application

The provisions of this specification shall apply in respect of all workers and small, medium and micro enterprises other than the Contractor's key personnel, who are engaged on the execution of the works.

F3. ENGINEERING SKILLS TRAINING

The Contractor shall, from the commencement of the contract, implement a structured training programme comprising of the training delivered by the Selected Subcontractor and any additional training as provided for by the Contractor, in which the various skills required for the execution and completion of the works are imparted to the workers, and where applicable, small, medium and micro enterprises engaged thereon, in a

Programmed and progressive manner. Selected workers shall be trained progressively throughout the duration of the contract in the various stages of a particular type of work.

F3.1 Training programme

The skills training programme to be implemented by the Selected Subcontractor shall comply with the following minimum standards:

- a) Be accredited by the Civil Engineering Industry Training Scheme (CEITS) or other institution recognised by the Department of Labour, as being appropriate for application on this project. Accredited training refers to both the trainers as well as to the training materials.
- b) Be delivered by suitably qualified and experienced trainers accredited to do so.

F3.2 In house training

The Contractor shall provide with his Tendered, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:

- (i) The name of the accredited training institution and programme
- (ii) The various aspects of each type of training comprised in the programme
- (iii) The manner in which the training is to be delivered
- (iv) The numbers and details of the trainers to be utilized.

Details of such additional skills training shall be attached to Form H of the forms to be completed by the Tenderer.

F3.3 Additional training

The Contractor shall be responsible for the provision of the following necessary for the delivery of the specified and additional skills training programme, including the following:

- (i) Sufficient skilled, competent and accredited trainers to deliver the additional training programme to workers in accordance with the training programme
- (ii) A suitably furnished venue
- (iii) Transport of the workers as required
- (iv) Tools, equipment, and teaching aids
- (v) Stationery and all other necessary materials.

F3.4 Selection of candidates

Members of the workforce will be selected by the Engineer, assisted by the Contractor and the Liaison Officer, to receive specific training as approved by the Engineer.

The following will be taken into account in the selection of the workers to receive the specified training:

- (i) Previous experience (if any)
- (ii) Previous courses completed (if any)
- (iii) Module specific requirements.

F3.5 Duration of training

The Contractor shall allow in his programme for the selected members of the workforce to be engaged in the specified training modules.

Provision must also be made by the Contractor for members of the workforce to receive any additional training as provided for by the Contractor.

F3.6 Training hours

All specified skills-related training shall take place only during normal working hours and the Contractor shall ensure that the selected workers are available at the appropriate times to undergo such training.

F3.7 Approval of training

Both the Selected Subcontractor's and the Contractor's additional training programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer, the Contractor shall alter or amend the programme and course content to suit changing conditions on site and all changes in the Contractor's programme of work.

F3.8 Training record

The Contractor shall keep comprehensive records of the training given to each worker involved in training as well as the nature and number of each task executed by the worker and whenever required shall provide copies of such records to the Engineer.

F3.9 Remuneration during training

Workers shall be remunerated in respect of all time spent undergoing the specified training in terms of Clause D03.02, at the minimum specified wage rate for the area of the Works.

F3.10 Use of workers

The Contractor shall, in so far as it is reasonably feasible, take due cognizance of the nature of the works to be executed at any given time and use trained workers on those aspects of the works for which they have been trained.

F4. ENTREPRENEURIAL SKILLS TRAINING**F4.1 Selection of Candidates**

Members from selected small, medium and micro enterprises employed by the Contractor as Subcontractors will be entitled to receive a structured training programme, comprising of training delivered by a Selected Subcontractor and any

additional training as provided for by the Contractor, the training will comprise both management skills as well as business development skills.

F4.2 Performance and monitoring

The Contractor shall closely monitor the performance of all the Subcontractors in the execution of their contracts and shall identify all such Subcontractors who, in his opinion, display the potential to benefit from structured training as may be provided for elsewhere in the Contract and where required by the Engineer, and shall make recommendations in this regard. The final list of candidates will be decided between the Contractor, the Engineer and the Project Committee.

F4.3 Delivery of training

The Contractor shall assist in facilitating in the delivery of the training, by instructing and motivating the Subcontractor's regarding attendance and participation therein.

F4.4 Programming of work and training

The Contractor shall further make all reasonable efforts to co-ordinate the programming of the Subcontractor's work with that of the delivery of the structured training.

F4.5 Training standards

The entrepreneurial skills training programme to be implemented by the selected Subcontractor shall comply with the following minimum standards:

- (i) Be accredited by the Civil Engineering Industry Training Scheme (CEITS) or other institution recognised by the Department of Labour, as being appropriate for application on this project. Accredited training refers to both the trainers as well as to the training materials.
- (ii) Be delivered by suitably qualified and experienced trainers accredited to do so

F4.6 Certificates

Following completion of the structured training, members of small, medium and micro Subcontractors that have demonstrated understanding of and competence in the training material are to be appropriately certified by the accrediting body.

F4.7 In house training and additional training

The Contractor shall provide with his Tendered, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:

- (i) The name of the training institution and programme

- (ii) The various aspects of each type of training comprised in the programme
- (iii) The manner in which the training is to be delivered
- (iv) The numbers and details of the trainers to be utilized.

Details of such additional entrepreneurial training shall be attached to Form H of the forms to be completed by the Tenderer.

F4.8 Provision of entrepreneurial training

The Contractor shall be responsible for the provision of the following necessary for the delivery of the entrepreneurial training programme, including the following:

- (i) Sufficient skilled and competent trainers to deliver the additional training programme to trainees in accordance with the training programme
- (ii) A suitably furnished venue
- (iii) Transport of the trainees as required
- (iv) Tools, equipment, and teaching aids
- (v) Stationery and all other necessary materials.

F4.9 Training hours

All specified entrepreneurial training shall take place within normal working hours.

F4.10 Approval of training

Both the Selected Subcontractor's and the Contractor's training programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer shall alter or amend the programme and course content.

F4.11 Training records

The Contractor shall keep comprehensive records of the training given to each Subcontractor involved in training and whenever required shall provide copies of such records to the Engineer. At the successful completion of each course each Subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

F4.12 Remuneration during training

No remuneration in respect of time spent undergoing specified training in terms of this clause will be made to any of the Subcontractors.

F5. MEASUREMENT AND PAYMENT

F5.1 Basic principles

a) General

Measurement and payment for all work executed in terms of this contract shall be measured and paid for in accordance with the principles of the Construction Specifications, irrespective of whether the work is executed as an integral part of the provision of training in terms of this specification.

b) Training

The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the Selected Subcontractors as appointed by the Employer, in execution of the Engineer's written instruction, plus a percentage as Tendered to cover all his charges and profits.

F5.2 Scheduled items

Payment items are included in the bill of Quantities for the provision of the specified training by selected Subcontractors only.

	Item	Unit
F5.2.1	Conducting of skills audit and the development of a training plan	Provisional
Sum		

A provisional sum is allowed for the conducting of a skills audit of the Local Labour, as well as the compilation of a training plan.

The provisional sum shall include full compensation for identification of pre-qualification criteria and training needs, staff assessment and evaluation prior to training, all technical research, identification of accredited training courses, and all other actions necessary for commencement of official training sessions in accordance with the specification.

Any expenditure under this item requires the written prior approval of the Engineer and Employer.

Item	Unit
F5.2.1	Presenting accredited training course for Local Labour and MEs
Sum	Provisional

The provisional sum shall include full compensation for presenting the courses, including lectures, demonstrations, on-site training and hands-on development, and improvement of maintenance personnel's skills to enable them to maintain and repair installations safely and efficiently at the satisfactory functional condition specified.

The provisional sum shall also include full compensation for the Contractor's time, appointment of the accredited trainer for the course, and for all material expenses such as paper hand-outs and slides for the whole group of trainees, the number of which shall be determined during development of the training course.

Any expenditure under this item requires the written prior approval of the Engineer and Employer.

F5.2.2 Penalty Calculation

Use of Local Labour

Should the contractor fail to meet the minimum requirement of creating 10 employment opportunities on site for the duration of the contract, a penalty of 1,5 * the value of the amount of employment that was not created, calculated at R350-00 per day per person, will be calculated and imposed. This amount will be deducted from the Contractor's payment certificate.

The Contractor is to indicate to the Municipality via a report certified by their auditors indicating the payments made to Local Labour at the end of the Contract before the retention money is released

PART C4

SITE INFORMATION

C4 Site Information

C4.1 Scope of Site Information

Geotechnical investigation was carried out as per the attached report, which soil samples of the in-situ soils were retrieved and delivered to SANAS accredited civil engineering laboratory for material testing to determine materials classification and properties. The following tests were undertaken:



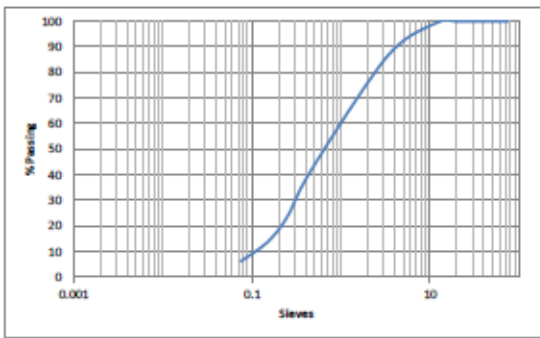
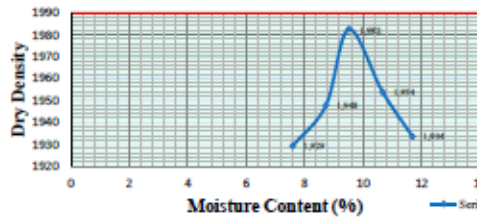
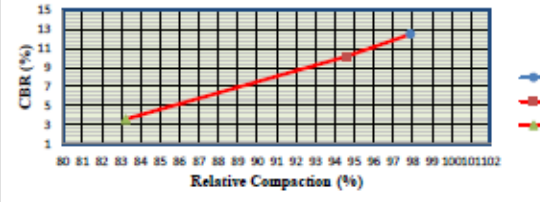

- Trial holes
- Grading Analysis
- Atterberg Limits
- Maximum Dry Density (MDD)
- California Bearing Ration (CBR)
- DCP's



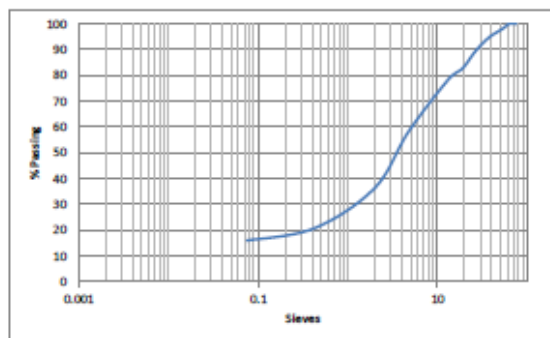
The tests are conducted to determine materials suitability for usage as road layers or flexible pavement layers.



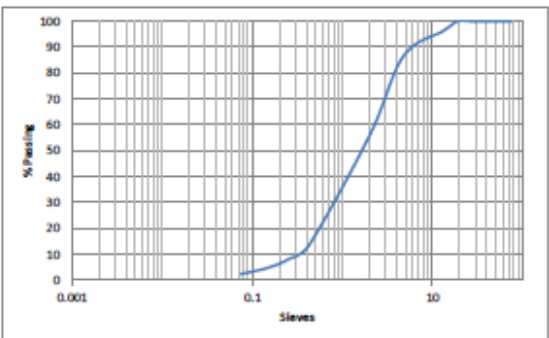
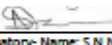
Allowance was made in the schedule of quantities for expected import of suitable material. For the purposes of the Contract it will be deemed that, prior to submitting his Tender, the Contractor acquainted himself fully with the information and prevailing site conditions. The contractor shall have no claim against the Employer in respect of geotechnical or subsurface conditions encountered during the course of the Contract.



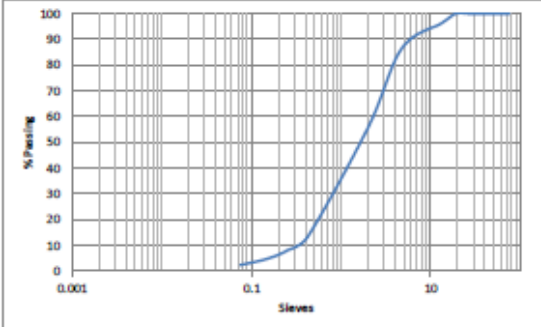




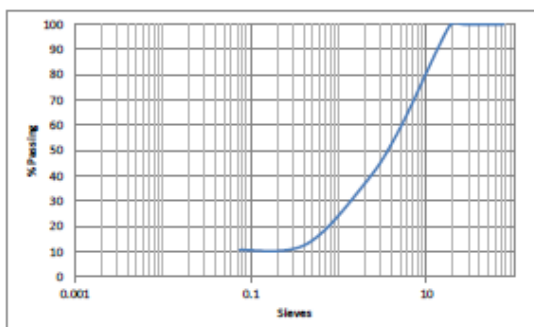
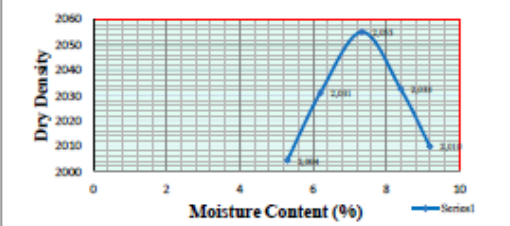
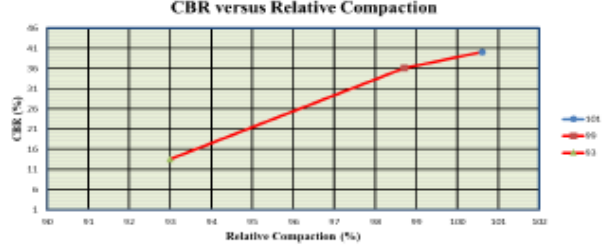
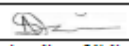
FIGURE 1 TEST PITS LOCATIONS

LANGA GEOTECHNICAL SERVICES 13 JAN STREET ROCKY'S DRIFT WHITERIVER, 1341 Tel: +713 758 1080 Fax: +713 758 1034		 T0722																							
CLIENT : BLACK ROCK LAB ADDRESS : LOCATION : CELL : ATT :		PROJECT : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA YOUR REF : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA OUR REF : LANGA/BRL/23/01 DATE REPORTED : 09/01/2023																							
SIEVE ANALYSIS, ATTERBERG LIMITS, CBR (SANS 3001 - GR)																									
Sample no : Hole no : Depth : Chainage/Section : Layer : Description : Stabilized with :	P132/23/0001 TP 01 0 - 0.8m TP 01 LIGHT YELLOW (SANDY) NEAT	SIEVE ANALYSIS GRAPH 																							
SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>75.0mm</td> <td>100</td> </tr> <tr> <td>63.0mm</td> <td>100</td> </tr> <tr> <td>53.0mm</td> <td>100</td> </tr> <tr> <td>37.5mm</td> <td>100</td> </tr> <tr> <td>27mm</td> <td>100</td> </tr> <tr> <td>20.0mm</td> <td>100</td> </tr> <tr> <td>14mm</td> <td>100</td> </tr> <tr> <td>3mm</td> <td>92</td> </tr> <tr> <td>2.00mm</td> <td>76</td> </tr> <tr> <td>0.425mm</td> <td>40</td> </tr> <tr> <td>0.075mm</td> <td>6</td> </tr> </table>		75.0mm	100	63.0mm	100	53.0mm	100	37.5mm	100	27mm	100	20.0mm	100	14mm	100	3mm	92	2.00mm	76	0.425mm	40	0.075mm	6
75.0mm	100																								
63.0mm	100																								
53.0mm	100																								
37.5mm	100																								
27mm	100																								
20.0mm	100																								
14mm	100																								
3mm	92																								
2.00mm	76																								
0.425mm	40																								
0.075mm	6																								
SOIL MORTAR - SANS 3001 - PR3		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Coarse fine sand soil-mortar percentage (S_{10})</td> <td>21</td> </tr> <tr> <td>Medium fine sand soil-mortar percentage (S_{40})</td> <td>13</td> </tr> <tr> <td>Fine fine sand soil-mortar percentage (S_{60})</td> <td>10</td> </tr> </table>		Coarse fine sand soil-mortar percentage (S_{10})	21	Medium fine sand soil-mortar percentage (S_{40})	13	Fine fine sand soil-mortar percentage (S_{60})	10																
Coarse fine sand soil-mortar percentage (S_{10})	21																								
Medium fine sand soil-mortar percentage (S_{40})	13																								
Fine fine sand soil-mortar percentage (S_{60})	10																								
CONSTANTS																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Grading modules</td> <td>1.78</td> </tr> <tr> <td>PRA classification</td> <td>A-1-b</td> </tr> <tr> <td>Unified soil classification</td> <td>SP</td> </tr> <tr> <td>TRH classification</td> <td>GS</td> </tr> <tr> <td>Liquid Limit</td> <td>28</td> </tr> <tr> <td>Plasticity Index</td> <td>3</td> </tr> <tr> <td>Linear Shrinkage</td> <td>3</td> </tr> </table>				Grading modules	1.78	PRA classification	A-1-b	Unified soil classification	SP	TRH classification	GS	Liquid Limit	28	Plasticity Index	3	Linear Shrinkage	3	CBR versus Relative Compaction 							
Grading modules	1.78																								
PRA classification	A-1-b																								
Unified soil classification	SP																								
TRH classification	GS																								
Liquid Limit	28																								
Plasticity Index	3																								
Linear Shrinkage	3																								
MOD AND CBR		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Test Method for MOD</td> <td>SANS 3001 - GR30/GR31</td> </tr> <tr> <td>Mod AASHTO</td> <td></td> </tr> <tr> <td>Max DD (kg/m³)</td> <td>1982</td> </tr> <tr> <td>OMC (%)</td> <td>9.5</td> </tr> <tr> <td>Moulding Moisture (%)</td> <td>9.5</td> </tr> </table>		Test Method for MOD	SANS 3001 - GR30/GR31	Mod AASHTO		Max DD (kg/m³)	1982	OMC (%)	9.5	Moulding Moisture (%)	9.5												
Test Method for MOD	SANS 3001 - GR30/GR31																								
Mod AASHTO																									
Max DD (kg/m³)	1982																								
OMC (%)	9.5																								
Moulding Moisture (%)	9.5																								
TEST METHOD SANS 3001 - GR40		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>CBR (%) at 100% Mod AASHTO</td> <td>14</td> </tr> <tr> <td>CBR (%) at 98% Mod AASHTO</td> <td>13</td> </tr> <tr> <td>CBR (%) at 97% Mod AASHTO</td> <td>12</td> </tr> <tr> <td>CBR (%) at 95% Mod AASHTO</td> <td>10</td> </tr> <tr> <td>CBR (%) at 93% Mod AASHTO</td> <td>9</td> </tr> <tr> <td>CBR (%) at 90% Mod AASHTO</td> <td>7</td> </tr> </table>		CBR (%) at 100% Mod AASHTO	14	CBR (%) at 98% Mod AASHTO	13	CBR (%) at 97% Mod AASHTO	12	CBR (%) at 95% Mod AASHTO	10	CBR (%) at 93% Mod AASHTO	9	CBR (%) at 90% Mod AASHTO	7										
CBR (%) at 100% Mod AASHTO	14																								
CBR (%) at 98% Mod AASHTO	13																								
CBR (%) at 97% Mod AASHTO	12																								
CBR (%) at 95% Mod AASHTO	10																								
CBR (%) at 93% Mod AASHTO	9																								
CBR (%) at 90% Mod AASHTO	7																								
Swell at Mod AASHTO (%) Swell at NRB (%) Swell at Proctor (%)		0.0 0.0 0.1																							
REMARKS: Material sampling and preparation done as per TMH5, methods M81, MD1 and MD2 oned as per client request																									
NOTE: The test results are only relevant to the sample tested, which was tested in accordance with the relevant SANS 3001 - GR methods. Any results may only be reproduced in their entirety with the written consent of Langa Geotechnical Services (Pty) Ltd, and any remarks made fall outside the scope of our Accreditation.																									
 Technical Signatory- Name: S.N Ngobeni																									

LANGA GEOTECHNICAL SERVICES 13 JAN STREET ROCKY'S DRIFT WHITERIVER, 1241 Tel: +713 738 1080 Fax: +713 738 1084			
CLIENT : BLACK ROCK LAB ADDRESS : LOCATION : CELL : ATT :		PROJECT : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA YOUR REF : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA OUR REF : LANGA/BRL/23/01 DATE REPORTED : 01/09/2023	
SIEVE ANALYSIS, ATTERBERG LIMITS, CBR (SANS 3001 - GR)			
Sample no : P152/23/0002 Hole no : TP 02 Depth : (0.0-0.5m) Chainage/Section : TP 02 Layer : Description : ORANGE GREY (CLAY) Stabilized with : NEAT	SIEVE ANALYSIS GRAPH 		
SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2			
75.0mm : 100 63.0mm : 100 53.0mm : 98 37.5mm : 93 27mm : 89 20.0mm : 83 14mm : 78 5mm : 58 2.00mm : 36 0.425mm : 21 0.075mm : 16			
SOIL MORTAR - SANS 3001 - PR5			
Coarse fine sand soil-mortar percentage (S_{FC}) : 19 Medium fine sand soil-mortar percentage (S_{FM}) : 13 Fine fine sand soil-mortar percentage (S_{FF}) : 13			
CONSTANTS			
Grading modulus : 2.27 FRA classification : A-2-4 Unified soil classification : GM TRH classification : GS Liquid Limit : 33 Plasticity Index : 8 Linear Shrinkage : 4			
MOD AND CBR			
Test Method for MOD : SANS 3001 - GR30/GR31 Mod AASHTO : 1989 Max OD (W_p/m^3) : 10.2 OMC (%) : 10.2 Moulding Moisture (%) : 10.2			
TEST METHOD SANS 3001 - GR40			
CBR (%) at 100% Mod AASHTO : 23 CBR (%) at 98% Mod AASHTO : 21 CBR (%) at 97% Mod AASHTO : 20 CBR (%) at 95% Mod AASHTO : 16 CBR (%) at 93% Mod AASHTO : 12 CBR (%) at 90% Mod AASHTO : 6			
Swell at Mod AASHTO (%) : 0.0 Swell at NRB (%) : 0.0 Swell at Proctor (%) : 0.1			
REMARKS: Material sampling and preparation done as per TMH5, methods MB1, MD1 and MD2 used as per client request			
NOTE: The test results are only relevant to the sample tested, which was tested in accordance with the relevant SANS 3001 - GR methods. Any results may only be reproduced in their entirety with the written consent of Langa Geotechnical Services (Pty) Ltd, and any remarks made fall outside the scope of our Accreditation.			
Technical Signatory Name: P BOETSA			

LANGA GEOTECHNICAL SERVICES 13 JAN STREET ROCKY'S DRIFT WHITERIVER, 1241 Tel: +713 758 1080 Fax: +713 758 1034		 T0722	
CLIENT : BLACK ROCK LAB ADDRESS : LOCATION : CELL : ATT :	PROJECT : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA YOUR REF : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA OUR REF : LANA/BRL/23/01 DATE REPORTED : 09/01/2023		
SIEVE ANALYSIS, ATTERBERG LIMITS, CBR (SANS 3001 - GR)			
Sample no : Hole no : Depth : Chainage/Section : Layer : Description : Stabilized with :	P152/23/0004 TP 03 0 - 1.1mm TP 03 ORANGE NEAT	SIEVE ANALYSIS GRAPH 	
SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2			
75.0mm 63.0mm 53.0mm 37.5mm 27mm 20.0mm 14mm 5mm 2.00mm 0.425mm 0.075mm	100 100 100 100 100 100 96 86 56 13 2		
SOIL MORTAR - SANS 3001 - PR3			
Coarse fine sand soil-mortar percentage (S_{40}) Medium fine sand soil-mortar percentage (S_{60}) Fine fine sand soil-mortar percentage (S_{80})	10 6 4		
CONSTANTS			
Grading modules FRA classification Unified soil classification TRH classification Liquid Limit Plasticity Index Linear Shrinkage	2.28 33 2 6		
MOD AND CBR			
Test Method for MOD Mod AASHTO Max DD (kg/m ³) OMC (%) Moulding Moisture (%)	SANS 3001 - GR30/GR31 		
TEST METHOD SANS 3001 - GR40			
CBR (%) at 100% Mod AASHTO CBR (%) at 98% Mod AASHTO CBR (%) at 97% Mod AASHTO CBR (%) at 95% Mod AASHTO CBR (%) at 93% Mod AASHTO CBR (%) at 90% Mod AASHTO	CBR 		
Swell at Mod AASHTO (%) Swell at NRB (%) Swell at Proctor (%)	 		
REMARKS: Material sampling and preparation done as per TMH5, methods MB1, MD1 and MD2 oned as per client request			
NOTE: The test results are only relevant to the sample tested, which was tested in accordance with the relevant SANS 3001 - GR methods. Any results may only be reproduced in their entirety with the written consent of Langa Geotechnical Services (Pty) Ltd, and any remarks made fall outside the scope of our Accreditation.			
 Technical Signatory- Name: S.N Ngobeni			

LANGA GEOTECHNICAL SERVICES 13 JAN STREET ROCKY'S DRIFT WHITERIVER, 1241 Tel: +713 758 1080 Fax: +713 758 1084			
CLIENT : BLACK ROCK LAB ADDRESS : LOCATION : CELL : ATT :		PROJECT : 2.1Km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA YOUR REF : 2.1Km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA OUR REF : LANGA/BRL/23/01 DATE REPORTED : 09/01/2023	
SIEVE ANALYSIS, ATTERBERG LIMITS, CBR (SANS 3001 - GR)			
Sample no : Hole no : Depth : Chainage/Section : Layer : Description : Stabilized with :	P152/23/0005 TP 04 0.3 - 1.3mm TP 04 LIGHT BROWN NEAT	SIEVE ANALYSIS GRAPH 	
SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2			
75.0mm 63.0mm 53.0mm 37.5mm 27mm 20.0mm 14mm 5mm 2.00mm 0.425mm 0.075mm	100 100 100 100 100 100 96 86 56 13 2		
SOIL MORTAR - SANS 3001 - PR3			
Coarse fine sand soil-mortar percentage (F_{40}) Medium fine sand soil-mortar percentage (F_{40}) Fine fine sand soil-mortar percentage (F_{40})	10 6 4		
CONSTANTS			
Grading modulus PRA classification Unified soil classification TRH classification Liquid Limit Plasticity Index Linear Shrinkage	2.28 33 12 6		
MOD AND CBR			
Test Method for MOD Mod AASHTO Max DD (kg/m ³) OMC (%) Moulding Moisture (%)	SANS 3001 - GR30/GR31 		
TEST METHOD SANS 3001 - GR40			
CBR (%) at 100% Mod AASHTO CBR (%) at 98% Mod AASHTO CBR (%) at 97% Mod AASHTO CBR (%) at 95% Mod AASHTO CBR (%) at 93% Mod AASHTO CBR (%) at 90% Mod AASHTO	 		
Swell at Mod AASHTO (%) Swell at NRB (%) Swell at Proctor (%)	 		
REMARKS: Material sampling and preparation done as per TMH5, methods MB1, MD1 and MD2 oned as per client request			
NOTE: The test results are only relevant to the sample tested, which was tested in accordance with the relevant SANS 3001 - GR methods. Any results may only be reproduced in their entirety with the written consent of Langa Geotechnical Services (Pty) Ltd, and any remarks made fall outside the scope of our Accreditation.			
Technical Signatory- Name: S.N Ngobeni			

Sheet 1	LANGA GEOTECHNICAL SERVICES 13 JAN STREET ROCKY'S DRIFT WHITERIVER, 1241 Tel: +713 738 1080 Fax: +713 738 1034	 T0722																																	
CLIENT : BLACK ROCK LAB ADDRESS : LOCATION : CELL : ATT :		PROJECT : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA YOUR REF : 2.1km PAVED ROADS & STORMWATER DRAINAGES IN ZAMDELA OUR REF : LANGA/BRL/23/01 DATE REPORTED : 09/01/2023																																	
SIEVE ANALYSIS, ATTERBERG LIMITS, CBR (SANS 3001 - GR)																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sample no : P153/23/0003</td> <td style="width: 50%;">TP 05</td> </tr> <tr> <td>Hole no : (1.1 - 1.3m)</td> <td>TP 05</td> </tr> <tr> <td>Depth : (1.1 - 1.3m)</td> <td>TP 05</td> </tr> <tr> <td>Chainage/Section : TP 05</td> <td></td> </tr> <tr> <td>Layer : </td> <td></td> </tr> <tr> <td>Description : DARK BROWN (GRAVEL)</td> <td></td> </tr> <tr> <td>Stabilized with : NEAT</td> <td></td> </tr> </table>		Sample no : P153/23/0003	TP 05	Hole no : (1.1 - 1.3m)	TP 05	Depth : (1.1 - 1.3m)	TP 05	Chainage/Section : TP 05		Layer :		Description : DARK BROWN (GRAVEL)		Stabilized with : NEAT		<p style="text-align: center;">SIEVE ANALYSIS GRAPH</p> 																			
Sample no : P153/23/0003	TP 05																																		
Hole no : (1.1 - 1.3m)	TP 05																																		
Depth : (1.1 - 1.3m)	TP 05																																		
Chainage/Section : TP 05																																			
Layer :																																			
Description : DARK BROWN (GRAVEL)																																			
Stabilized with : NEAT																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2</td> </tr> <tr><td>75.0mm</td><td>100</td></tr> <tr><td>63.0mm</td><td>100</td></tr> <tr><td>53.0mm</td><td>100</td></tr> <tr><td>37.5mm</td><td>100</td></tr> <tr><td>27mm</td><td>100</td></tr> <tr><td>20.0mm</td><td>100</td></tr> <tr><td>14mm</td><td>90</td></tr> <tr><td>5mm</td><td>37</td></tr> <tr><td>2.00mm</td><td>37</td></tr> <tr><td>0.425mm</td><td>13</td></tr> <tr><td>0.075mm</td><td>11</td></tr> </table>		SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2		75.0mm	100	63.0mm	100	53.0mm	100	37.5mm	100	27mm	100	20.0mm	100	14mm	90	5mm	37	2.00mm	37	0.425mm	13	0.075mm	11	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">SOIL MORTAR - SANS 3001 - PR3</td> </tr> <tr><td>Gravel</td><td>22</td></tr> <tr><td>Sand</td><td>62</td></tr> <tr><td>Fine</td><td>17</td></tr> </table>		SOIL MORTAR - SANS 3001 - PR3		Gravel	22	Sand	62	Fine	17
SIEVE ANALYSIS (% PASSING) - SANS 3001 - GR1 OR GR2																																			
75.0mm	100																																		
63.0mm	100																																		
53.0mm	100																																		
37.5mm	100																																		
27mm	100																																		
20.0mm	100																																		
14mm	90																																		
5mm	37																																		
2.00mm	37																																		
0.425mm	13																																		
0.075mm	11																																		
SOIL MORTAR - SANS 3001 - PR3																																			
Gravel	22																																		
Sand	62																																		
Fine	17																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">CONSTANTS</td> </tr> <tr><td>Grading modules</td><td>2.39</td></tr> <tr><td>PRA classification</td><td>A3</td></tr> <tr><td>Unified soil classification</td><td>CL</td></tr> <tr><td>TRH classification</td><td>GS</td></tr> <tr><td>Liquid Limit</td><td>N/P</td></tr> <tr><td>Plasticity Index</td><td>N/P</td></tr> <tr><td>Linear Shrinkage</td><td>N/P</td></tr> </table>		CONSTANTS		Grading modules	2.39	PRA classification	A3	Unified soil classification	CL	TRH classification	GS	Liquid Limit	N/P	Plasticity Index	N/P	Linear Shrinkage	N/P																		
CONSTANTS																																			
Grading modules	2.39																																		
PRA classification	A3																																		
Unified soil classification	CL																																		
TRH classification	GS																																		
Liquid Limit	N/P																																		
Plasticity Index	N/P																																		
Linear Shrinkage	N/P																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">MOD AND CBR</td> </tr> <tr> <td>Test Method for MOD</td> <td>SANS 3001 - GR30/GR31</td> </tr> <tr> <td>Mod AASHTO</td> <td></td> </tr> <tr> <td>Max DD (kg/m³)</td> <td>2033</td> </tr> <tr> <td>OMC (%)</td> <td>7.3</td> </tr> <tr> <td>Moulding Moisture (%)</td> <td>7.4</td> </tr> </table>		MOD AND CBR		Test Method for MOD	SANS 3001 - GR30/GR31	Mod AASHTO		Max DD (kg/m³)	2033	OMC (%)	7.3	Moulding Moisture (%)	7.4	<p style="text-align: center;">CBR versus Relative Compaction</p> 																					
MOD AND CBR																																			
Test Method for MOD	SANS 3001 - GR30/GR31																																		
Mod AASHTO																																			
Max DD (kg/m³)	2033																																		
OMC (%)	7.3																																		
Moulding Moisture (%)	7.4																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">TEST METHOD SANS 3001 - GR40</td> <td>CBR</td> </tr> <tr><td>CBR (%) at 100% Mod AASHTO</td><td></td><td>40</td></tr> <tr><td>CBR (%) at 98% Mod AASHTO</td><td></td><td>33</td></tr> <tr><td>CBR (%) at 97% Mod AASHTO</td><td></td><td>29</td></tr> <tr><td>CBR (%) at 95% Mod AASHTO</td><td></td><td>21</td></tr> <tr><td>CBR (%) at 93% Mod AASHTO</td><td></td><td>13</td></tr> <tr><td>CBR (%) at 90% Mod AASHTO</td><td></td><td>6</td></tr> </table>		TEST METHOD SANS 3001 - GR40		CBR	CBR (%) at 100% Mod AASHTO		40	CBR (%) at 98% Mod AASHTO		33	CBR (%) at 97% Mod AASHTO		29	CBR (%) at 95% Mod AASHTO		21	CBR (%) at 93% Mod AASHTO		13	CBR (%) at 90% Mod AASHTO		6	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Swells at Mod AASHTO (%)</td> <td>0.0</td> </tr> <tr> <td colspan="2">Swells at NRB (%)</td> <td>0.0</td> </tr> <tr> <td colspan="2">Swells at Proctor (%)</td> <td>0.1</td> </tr> </table>		Swells at Mod AASHTO (%)		0.0	Swells at NRB (%)		0.0	Swells at Proctor (%)		0.1		
TEST METHOD SANS 3001 - GR40		CBR																																	
CBR (%) at 100% Mod AASHTO		40																																	
CBR (%) at 98% Mod AASHTO		33																																	
CBR (%) at 97% Mod AASHTO		29																																	
CBR (%) at 95% Mod AASHTO		21																																	
CBR (%) at 93% Mod AASHTO		13																																	
CBR (%) at 90% Mod AASHTO		6																																	
Swells at Mod AASHTO (%)		0.0																																	
Swells at NRB (%)		0.0																																	
Swells at Proctor (%)		0.1																																	
REMARKS: Material sampling and preparation done as per TMHS, methods MB1, MD1 and MD2 done as per client request																																			
NOTE: The test results are only relevant to the sample tested, which was tested in accordance with the relevant SANS 3001 - GR methods. Any results may only be reproduced in their entirety with the written consent of Langa Geotechnical Services (Pty) Ltd, and any remarks made fall outside the scope of our Accreditation.																																			
 Technical Signatory- Name: S.N. Ngobeni																																			

PART C5 ANNEXURES

TENDER DRAWINGS

The work shall be carried out in accordance with the following drawings which form part of these contract documents:

