



GAUTENG PROVINCE

Department: Roads and Transport
REPUBLIC OF SOUTH AFRICA

TENDER NO. DRT 02/09/2020

FOR

**THE REHABILITATION OF ROAD P122/1 FROM KM 8,4
(OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) -
APPROXIMATELY 9,4 KM.**

**PROCUREMENT DOCUMENT
(BASED ON GCC 2015 THIRD EDITION)**

APRIL 2021

ISSUED BY:

Department of Roads and Transport,
Ground Floor, Life Centre Building
45 Commissioner Street
Johannesburg

PREPARED BY:



CivEc Civil Engineering Consultants
20 Volt Street
Moreleta Park
Pretoria, 0167
Tel: 082-772-7848

Tenderer's Name:.....

B-BBEE Status Level

Address

Tel No.....**Fax**

Email Address

CIDB Registration No......

Total Bid Amount incl of VAT

Bid Amount in words



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THE TENDER

PART T1: TENDERING PROCEDURES

PART T2: RETURNABLE DOCUMENTS



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T1.1 TENDER NOTICE AND INVITATION TO TENDER

THE GAUTENG PROVINCE, DEPARTMENT OF ROADS AND TRANSPORT REQUESTS INTERESTED TENDERERS TO BID FOR THE FOLLOWING TENDER:

TENDER NUMBER	SERVICE	CIDB LEVEL	COMPULSORY SITE BRIEFING	CLOSING DATE
DRT 02/09/2020	THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.	9 CE	<p>Venue: Department of Roads and Transport, 1215 Nico Smith Street (Previously Michael Brink Street) Koedoespoort</p> <p>Date: 10 May 2021</p> <p>To comply with COVID-19 regulations minimum numbers the meeting will be split into two.</p> <ol style="list-style-type: none"> Time: 10h00 to 11h30 am Time 12h00 to 13h30pm <p>NB: Bidder must ONLY attend one meeting.</p> <p>NB: Failure to attend the compulsory briefing session will result in disqualification of the bidder</p>	<p>03 June 2021 at 11H00</p> <p>Tender Box GAUTENG DEPARTMENT OF ROADS AND TRANSPORT, Ground Floor, Life Centre Building, 45 Commissioner Street, Johannesburg.</p>

The Gauteng Department of Roads and Transport adheres to all relevant Acts including, the Constitution of the Republic of South Africa of 1996, the Black Economic Empowerment Act No.53 of 2003, Preferential Procurement Policy Framework Act No.5 of 2000, Employment Equity Act No. 55 of 1998 and the Public Finance Management Act, No 1 of 1999.

PRE-QUALIFICATION CRITERIA FOR PREFERENTIAL PROCUREMENT

BIDDERS WHO DO NOT MEET THE PRE—QUALIFICATION CRITERIA BELOW WILL BE DISQUALIFIED AND WILL NOT BE CONSIDERED FURTHER IN THE EVALUATION PROCESS:

Bidders (including trusts, JV's and consortia) must have a stipulated minimum level 1 or 2 B-BBEE Status Level of contributor.

- Bidders who do NOT qualify as Exempted Micro Enterprises (EME's), or Qualifying Small Enterprises (QSE's) or QSE that is less than 51% black owned must submit B-BBEE verification certificates which have been prepared by an agency that is accredited by SANAS (South African National Accredited System)
- A Qualifying Small Enterprise (QSE) that is at least 51% black owned or more is required to submit an original or certified copy of a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership in order to qualify to the next round of evaluation.



- A Qualifying Small Enterprise (QSE) that is less than 51% black owned is required to submit a valid SANAS accredited original or certified copy of a B-BBEE level of contribution certificate and submit a valid original Sworn Affidavit confirming its annual total revenue of between R10 million and R50 million, based on the Financial Statements/Management Accounts and other information available on the latest financial year-end.
- An Exempted Micro Enterprise (EME) is required to submit an original or certified copy of a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership in order to qualify to the next round of evaluation.

Affidavits submitted by bidders in support of their B-BBEE level should comply with the Department of Trade and Industry (DTI) format which can be found on the Companies and Intellectual Property Commission (CIPC) and/or the Department of Trade and Industry (DTI) website.

Bidders are hereby advised that the Department shall examine and verify the authenticity of B-BBEE claims made by bidders.

Broad-Based Black Economic Empowerment (B-BBEE) requires that bidders submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims. All trusts, consortia and joint ventures must obtain and submit a consolidated B-BBEE Status Level Verification Certificate. Failure to do so will result in the bidder being disqualified. Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates together with their bids.

Sub-Contracting as a condition of tender

The Bidder must sub-contract a minimum of 30% of the value of the contract as stipulated in section 9(2) (b-h) in the PPR 2017.

The bidder must attach (as part of the submission) the sub-contractor's valid original or valid certified copy of a sworn affidavit commissioned by a Commissioner of Oaths or B-BBEE status level certificate from a SANAS accredited agency.

Those sub-contractors who will be involved in the execution of construction works must be registered with the CIBD and value of their sub-contracts must be in line with their respective CIBD grading (proof of CIBD grading or CRS number to be attached for each sub-contractor).

A signed subcontracting agreement specifying the following must be included in bidder submissions:

- Details of the scope of work with total amounts for each selected subcontractor
- Percentage allocated to each sub-contractor in relation to the scope

NB// BIDDERS MUST ONLY SUBCONTRACT WITH SUB-CONTRACTORS ON THE CSD LISTS ADVERTISED WITH THE TENDER

SERVICE	CSD LINK	
HIGHWAY AND ROAD CONSTRUCTION SERVICES	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEEDITFAVOURITE/3275	DRT02/09/2020 A
CONSTRUCTION EQUIPMENT RENTAL OR LEASING SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEEDITFAVOURITE/3276	DRT02/09/2020 B



SIDEWALK OR RAMP CONSTRUCTION SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEEDITFAVOURITE/3277	DRT38/11/2019 C
ROAD AND RAILROAD CONSTRUCTION MATERIALS	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEEDITFAVOURITE/3278	DRT02/09/2020 D
HIGHWAY AND ROAD SIGN OR GUARDRAIL CONSTRUCTION AND REPAIR SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEEDITFAVOURITE/3279	DRT02/09/2020 E

NB: Bidders who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.

COMPULSORY/MANDATORY TENDER REQUIREMENTS:

Failure to submit the following required documents will render the bidders tender disqualified:

- Proof of current 9CE grading from Construction Industry Development Board (CIDB) or written proof of application to the CIDB for registration as a contractor in grade 9CE (The bidder's registration must be finalized prior to closing date).
- The Construction Manager must be registered and be in good standing with Engineering Council of South Africa (ECSA) as a Professional Civil Engineer/Professional Civil Engineering Technologist (Pr. Eng./PrTech Eng.) or SACPCMP as a Professional Construction Manager (Pr.CM). The prospective bidders must submit proof of registration with the mentioned professional bodies. Recently certified copies (within 3 months of tender closing) of the professional registration certificate indicating the applicable registration number or professional registration number.
- In the case of joint ventures and consortia, a detailed signed agreement must be attached as part of the submitted tender document, which must be signed by all parties to the agreement.
- Complete and sign Standard Bidding Document (SBD) 4, 6.1, 8 and 9 which forms part of the tender document.
- Tenderers must attend the compulsory site briefing as indicated above. The attendance register must be completed and will be used as proof of attendance.

OTHER KEY RETURNABLES:

- Tax Compliance Status Pin (A trust, consortium or joint venture must submit a Tax Compliance Status Pin of each partner in the trust, consortium, or joint venture).
- Registration Documents of the business with the Companies and Intellectual Property Commission (CIPC) OR Master of the High Court in South Africa
- Central Supplier Database (CSD) registration summary report
- Certified ID copies of company directors or members and shareholders. (NB: The date of certification must be less than 3 months from the date of the bid closure).



FUNCTIONALITY EVALUATION REQUIREMENTS:

Functionality will be scored out of 100 points and the minimum threshold to qualify is 70 points. Bidders who fail to meet the minimum threshold will not be considered for further evaluation. The evaluation criteria to score bidders on functionality are as follows:

FUNCTIONALITY CRITERIA				
Key Personnel (Max 30 points)	Experience in road construction or / and road rehabilitation (Max 40 points)	Plant and Equipment (Max 15 points)	Project plan (Max 5 points)	Bank Rating (Max 10 points)
<p>Bidders MUST complete the T2.3 (Form B1 and B2) attached in the bid document for key personnel and MUST clearly indicate road Construction and/or Road Rehabilitation experience, project description, duration and contactable references. NB: (Failure to complete the T2.3 form and submit certified copies of qualifications will result in the bidder scoring zero points)</p> <p>Key personnel must be available full-time and dedicated to this project</p>	<p>(Failure to submit at least a completion or taking over or final approval certificate will result in the bidder scoring zero points)</p> <p>NB: Completion or taking over or final approval certificate must be signed by all relevant parties (Completion or taking over Certificate that is not signed by all relevant parties will result in the bidder forfeiting points)</p>	<p>Bidders MUST complete Form T2.1D: Schedule of Plant and Equipment</p> <p>(Failure to submit proof of ownership OR lease/hire agreements for plant and equipment will result in the bidder scoring zero points)</p> <p>Proof of ownership must be in the form of registration papers or Audited report indicating assets (plant).</p>	<p>(Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder scoring zero points)</p>	<p>(Failure to submit proof of bank rating from the relevant bank will result in the bidder scoring zero points)</p>
<p>CONSTRUCTION MANAGER: Must be registered and in good standing with ECSA (PrEng/ PrTech Eng) OR SACPCMP (PrCM). A Construction Manager with Construction and/or Road Rehabilitation experience, will be assessed as follows: (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> 10 years' or more experience in Construction and/or Road Rehabilitation (10 points) 5 years' to less than 10 years' experience in Construction and/or Road Rehabilitation (5 points) Less than 5 years' 	<p>Experience in Road Construction and/or Road Rehabilitation projects with completion certificates, completed since year 2000 will be assessed as follows: (Max 40 points)</p> <ul style="list-style-type: none"> 4 or more projects completed: (40 points) 3 projects completed: (30 points) 2 projects completed: (20 points) 1 project completed: (10 points) No project completed: (0 points) <p>NB: Practical Completion certificate or equivalent will</p>	<ul style="list-style-type: none"> 1 x Pavement Recycling Machine (min 2.4m working width): (4 points) 1 x Asphalt Milling Machine: (3 points) 2 x Vibratory Steel Wheel Roller (9-12 tons): (1 point each, max 2 points) 2 x Grader 140G motor similar: (1 point each, max 2 points) 2 Tractor-Loader-Backhoe (TLB) (min 60 Kw): (1 point each, max 2 points) 2 x Water carts (min 9000 litre capacity per water cart): (1 point each, max 2 points) 	<p>Project Plan: Contractor's detailed and complete construction programme (Gantt Chart). The chart must clearly indicate the activities and timeframe from Letter of appointment to last payment certificate on the project. This will be assessed as follows: (5 points)</p> <ul style="list-style-type: none"> Linkages between key activities: (2 points) Indicate critical path: (2 points) Completion date within the stipulated construction period: (1 point) 	<ul style="list-style-type: none"> Rating A or B: (10 points) Rating C: (5 points) Rating D, E, F: (0 points)



<p style="text-align: center;">experience (0 points)</p> <p>SITE AGENT: with at least a diploma in Civil Engineering must be permanently based on the site for the duration of the project. The Site Agent with Construction and/or Road Rehabilitation experience, will be assessed as follows: (Attach certified academic and completed B1 and B2 forms) (Max 10 points) Experience:</p> <ul style="list-style-type: none"> • 10 years' or more experience in Construction and/or Road Rehabilitation (10 points) • 5 years' to less than 10 years' experience in Construction and/or Road Rehabilitation (5 points) • Less than 5 years' experience (0 points) <p>FOREMAN: must be permanently based on the site for the duration of the project. The Foreman with Construction and/or Road Rehabilitation experience will be assessed as follows: (Attach CV) (Max 5 points) Experience:</p> <ul style="list-style-type: none"> • 10 years' or more experience in Construction and/or Road Rehabilitation (5 points) • 4 years' to less than 10 years' experience Construction and/or Road Rehabilitation (3 points) • Less than 4 years' experience (0 points) 	<p>not be considered</p>			
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<p>SAFETY OFFICER: a qualified Safety Officer must be registered and active with SACPCMP as a Safety Officer or Safety Manager (Candidate registration is not acceptable), must be permanently based on the site for the duration of the project. The Safety Officer with construction experience will be assessed as follows: (Attach certified professional registration certificate or professional registration number (Max 5 points) Experience:</p> <ul style="list-style-type: none"> • 5 years' or more experience in construction (5 points) • 3 years' to less than 5 years' experience in construction (2 points) • Less than 3 years' experience (0 points) 				
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PRICE AND PREFERENCE POINT SYSTEM EVALUATION:

Gauteng Department of Roads and Transport will apply the 90/10 preference point system in terms of the Preferential Procurement Regulations of 2017.

BIDDERS SHOULD NOTE THE FOLLOWING:

- Where the proposed prices of critical materials to be supplied to the Department are considerably less than the expected market price or rates, the Department reserves the right to verify the proposed prices by requesting quotations from the supplier(s) cited in the compilation of the bid.
- Only suppliers who are registered on the National Centralised Supplier Database (CSD) will be considered for appointment.



- Potential suppliers must note that in terms of department policy, the Department reserves the right to cancel a contract and blacklist any supplier for a period of 12 months if the supplier fails to adequately perform in terms of the awarded contract.
- The bid validity period is 90 days. However, the Department reserves the right to request all bidders to extend such validity period should the need arise.
- In terms of Occupational Health and Safety (OSH) Act the contractor is required to appoint a registered Safety officer with South African Council for the Project and Construction Management Professions (SACPCMP). Compliance in respect of the OSH is the responsibility of the contractor.
- The successful bidder will be required to enter into a formal contract with the Department. Such a contract will be governed in terms of the General Conditions of Contract dated 2015.
- The Department will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any tests which have been deemed necessary in the demonstration of compliance with the stated requirements (forming part of this RFP).
- Bidders to ensure that all sub-contractors comply with the SARS Legislation.

Please note: Certification as a “true copy of the original”, must comply with the requirements outlined in the Justices of the Peace and Commissioners of Oaths Act, No16 of 1963 and its Regulations promulgated in Government Notice GNR 1258 of July 1972 Justices of the Peace and Commissioners of Oaths Act, No. 16 of 1963.

TENDER DOCUMENTS:

A non-refundable amount of R500 (Five Hundred Rand) will be levied per tender document. This amount is payable in cash or debit card between 09h00 and 15h00 at our Finance Section of the Gauteng Department of Roads and Transport, ground floor, **Life centre Building, 45 Commissioner Street, Johannesburg.**

Tender documents will be available for collection by prospective bidders upon presentation of the appropriate proof of payment to the Department. **These documents can be collected on the Ground Floor, Life Centre Building, 45 Commissioner Street, Johannesburg between 09h00 and 15h00.** Tender documents will be available from the from the 30 April 2021

For the availability of the bid document and technical specification enquires contact Supply Chain Management (SCM) on the following numbers at 011 355 7000 or drt.scmbidadmin@gauteng.gov.za

OR Alternatively

Prospective bidders can download and print their own version of the tender document by accessing the eTender Publication Portal website (www.etenders.gov.za). Bidders are advised to ensure that all



tender documents are properly bound upon submission before the closing date and time. Late bids (bids submitted after the closing date and time) will NOT be accepted. Bidders who opt to download the tender document from the above designated website will not be required to pay a R500.00 fee.

BID SUBMISSION:

Bidders must complete and submit all the required pages of the tender document, as published.

Electronic submissions of bids will **NOT** be accepted. Telegraphic telephone, telex, facsimile, emails or similar apparatus of bids will **NOT** be accepted.

Bid documents must be submitted in a sealed envelope and deposited into the Tender Box situated at the Gauteng Department of Roads and Transport, Ground floor, Life Centre Building 45 Commissioner Street, Johannesburg by the closing date and before the closing time. **Late bids will NOT be accepted.**

Clearly numbered Bid Documents together with all applicable attachments must be deposited in the tender box at the ground floor, Life Centre Building, 45 Commissioner Street, Johannesburg, by no later than 11h00 on the 3rd of June 2021.



INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF ROADS AND TRANSPORT

BID NUMBER	DRT 02/09/2020	CLOSING DATE	03 June 2021	CLOSING TIME	11:00am
DESCRIPTION	THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM				

The successful bidder will be required to fill in and sign a written Contract Form (SBD 7).

BID DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AS INDICATED BELOW:

The Tender Document may be deposited into the TENDER BOX situated at the Gauteng Department of Roads and Transport, Ground floor, Life Centre Building 45 Commissioner Street, Johannesburg.

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE GENERAL CONDITIONS OF CONTRACT (GCC 2015, 3rd EDITION) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT



The following particulars must be completed	
NAME OF BIDDER	
POSTAL ADDRESS:	
STREET ADDRESS:	
TELEPHONE NUMBER :	CODE: NUMBER:
CELLPHONE NUMBER:	
FACSIMILE NUMBER :	CODE: NUMBER:
VAT REGISTRATION NUMBER	
HAS A TAX COMPLIANCE STATUS PIN BEEN SUBMITTED (SBD 2)?	YES/NO
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES OFFERED BY YOU?	YES/NO (IF YES ENCLOSE PROOF)
SIGNATURE OF BIDDER	
DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED	
I/We the undersigned (full name of the Tender)	
<p>_____</p> <p>Hereby offer to execute and complete the above-mentioned service in accordance with the Drawings, Specifications, Bills of Quantities and condition of contract for the amount indicated hereunder, and to provide all the labour, materials, workmanship, machinery plant and everything that is or may before necessary.</p>	
Bid price:	R
VAT:	R
Total Bid amount:	R
Is your price firm?	YES/NO
Total tender amount in words	



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T1.2 TENDER DATA

The conditions of tender are the Standard conditions of tender as contained in the South African National Standard for Construction procurement Part 3, Edition 1, 2015 (SANS 10845-3:2015).

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 Clause in the Standard Conditions of Tender to which it mainly applies.

Clause number	Data
3.1	<p>The Employer is Gauteng Province Roads and Transport, Roads Branch. The Employer's domicilium citandi et executandi (permanent physical business address) is:</p> <p>Life Centre Building 45 Commissioner Street Marshalltown, Johannesburg, 2001</p>
3.2	<p>The documents listed below will form part of this contract.</p> <p>The tender documents issued by the employer comprise Volume 3 and 4. The employer does not supply Volumes 1, 2 and 2A. Tenderers are to acquire their own copies of these documents.</p> <p>Volume 1: The General Conditions of Contract for Construction Works (2015, 3rd Edition) published by the South African Institution of Civil Engineering, is applicable to this contract. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel : 011 805 5947)</p> <p>Volume 2: The COLTO Standard Specifications for Roads and Bridge Works for State Road Authorities 1998, prepared by the Committee of Land Transport Officials, which the tenderer shall obtain from the South African Institution of Civil Engineering.</p> <p>Volume 2A: Supplementary Conditions of Contract for Road and Bridge Works for State Road Authorities in respect of the Employment of Emerging Contractors and Engagement of Labour – 2000 Edition.</p> <p>The project documents issued by the Employer comprise:</p>

Clause number	Data
3.2	<p>The Tender</p> <p><i>Part T1: Tendering Procedures</i></p> <p>T1.1 Tender notice and invitation to Tender</p> <p>T1.2 Tender data</p> <p><i>Part T2: Returnable Documents</i></p> <p>T2.1 Returnable schedules for Tender evaluation</p> <p>T2.2 Other documents required for Tender evaluation</p> <p>T2.3 Returnable Schedules that will be incorporated into the Contract</p> <p>The Contract</p> <p><i>Part C1: Agreements and contract data</i></p> <p>C1.1 Form of offer and acceptance</p> <p>C1.1A Contract Form (SBD 7.1)</p> <p>C1.2 Agreement in terms of OHS Act</p> <p>C1.3 Form of Guarantee</p> <p>C1.4 Contract Data</p> <p><i>Part C2: Pricing data</i></p> <p>C2.1 Pricing instructions</p> <p>C2.2 Bills of Quantities</p> <p>C2.3 Summary of Bill of Quantities</p> <p>C2.4 Calculation of Tender Sum</p> <p><i>Part C3: Scope of Works</i></p> <p>C3.1 Description of Work</p> <p>C3.2 Engineering</p> <p>C3.3 Procurement</p> <p>C3.4 Construction</p> <p>C3.5 Management</p> <p><i>Part C4: Site Information</i></p> <p>C4.1 Extract from the Transport Infrastructure Act 2001 (Act No 8 of 2001)</p> <p>C4.2 Site Information</p> <p>C4.3 Locality Plan</p> <p><i>Part C5: Annexures</i></p> <p>C5.1 Environmental Authorisation</p> <p>C5.2 Environmental Management Programme</p> <p>Volume 4: The drawings: Issued only on CD for tender purposes</p>
3.4	<p>The employer's agent is:</p> <p>Name : CivEc Civil Engineering Consultants</p> <p>Address : 20 Volt Street Moreleta Plark Pretoria, 0167</p> <p>Tel : 082-772-7848</p> <p>e-mail : chris@civec.net</p>
4.1.1	<p>- CIDB registration</p> <p>Only those tenderers who are registered with the CIDB, at close of tender and for the duration of the Tender offer validity period, in 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) or 25(7A) of the Construction Industry Development Regulations, for a 9 CE class of construction work are eligible to have their tenders evaluated.</p>

Clause number	Data												
4.1.1	<p>Tenderers registered as potentially emerging enterprises but with a CIDB contractor grading designation lower 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, are not eligible to have their tenders evaluated.</p> <p>For the sake of clarity and subject to satisfactory proof of a tenderer's ability to perform the work specified at the tendered value, the Employer lists in the table below the margins it considers reasonable. However, in the event that the sum tendered exceeds the margins shown then such tender shall be deemed non-responsive.</p> <table border="1"> <thead> <tr> <th>Category of tender</th> <th>Upper limits per CIDB Regulation 17</th> </tr> </thead> <tbody> <tr> <td>CE 5</td> <td>R10m</td> </tr> <tr> <td>CE 6</td> <td>R20m</td> </tr> <tr> <td>CE 7</td> <td>R60m</td> </tr> <tr> <td>CE 8</td> <td>R200m</td> </tr> <tr> <td>CE 9</td> <td>No Limit</td> </tr> </tbody> </table> <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; - a signed Joint Venture Agreement must be attached with the tender; - a valid copy of a consolidated B-BBEE Certificate for the Joint Venture must be attached with the tender in order to qualify for B-BBEE points as defined in SBD 6.1 - the lead partner has a contractor grading designation in the 9 CE class of construction work; and 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 a 9 CE class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations. <p>Failure to comply with the requirements will render the tender non-responsive.</p> <p>- Key Personnel</p>	Category of tender	Upper limits per CIDB Regulation 17	CE 5	R10m	CE 6	R20m	CE 7	R60m	CE 8	R200m	CE 9	No Limit
Category of tender	Upper limits per CIDB Regulation 17												
CE 5	R10m												
CE 6	R20m												
CE 7	R60m												
CE 8	R200m												
CE 9	No Limit												
4.1.1	<p>In order to be considered for an appointment in terms of this tender, the tenderer must have in its permanent employment key personnel who will be the single point accountability and responsibility for the management of the construction works. Alternatively, a signed undertaking from an organisation having the required personnel, stating that they will undertake the necessary work on behalf of the tenderer in terms of a sub-contractor agreement, will be acceptable. Such undertaking must be attached to Form T2.1 M of the Returnable Schedules.</p> <p>Individuals must be identified for each of the key personnel listed under Form T2.1 M.</p> <p>Key personnel required for this contract are as follows:</p>												
4.1.2	<ul style="list-style-type: none"> - Construction Manager - Site Agent - Foreman - Safety Officer <p>The Construction Manager must be registered with ECSA as an active Professional Civil Engineer/Professional Civil Engineering Technologist (Pr Eng/Tech) OR registered with SACPCMP as a Professional Construction Manager (Pr CM). The prospective tenderers must submit proof of registration with the mentioned professional bodies. Certified copies of the professional registration certificate or the applicable registration number must be attached as part of the tenderer's tender documents.</p> <p>Tenderers MUST complete T2.3 (B1 and B2 forms) attached in the tender documents for key personnel that will be involved with the project and MUST clearly indicate the personnel's road construction experience, project description, duration and contactable references. Failure to</p>												

Clause number	Data
	<p>complete T2.3 and submit certified qualifications will result in the tenderer not getting quality points for key personnel.</p> <p>Where the key personnel are no longer available to undertake the necessary work after the award of the tender, the contractor shall within a period of 14 working days replace the key personnel listed in Form T2.1 M with personnel with equivalent competencies and subject to approval by the Employer. Such approval shall not be unreasonably withheld.</p> <p>- Empowerment</p> <p>The minimum requirements for the empowerment of sub-contractors, women, youth local labour and training are provided in Section C3.3 – PROCUREMENT, LOCAL LABOUR AND TRAINING</p> <p>The Tenderers MUST note that a minimum of 40% will be subcontracted on the project, of which 30 % will be evaluated as part of the mandatory prequalification criteria as contain on the tender notice.</p>
4.2	<p>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 the site visit and clarification meeting(s) and any testing necessary to demonstrate that aspects of the offer complies with requirements.</p>
4.3	<p>Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender 5.8.</p>
4.4	<p>Only those tenderers who are registered with the CIDB, contractor grading designation equal to the sum tendered for a 9CE class of construction work, are eligible to submit tenders.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the 9CE class of construction work; and 3. 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 a 9CE class of construction work are eligible to submit tenders.
4.7	<p>The arrangements for a compulsory clarification meeting are:</p> <p>Location: Department of Roads and Transport, 1215 Nico Smith Street (Previously Michael Brink Street) Koedoespoort</p> <p>Date and times: 10 May 2021</p> <p>1. Time: 10h00 to 11h30 am</p> <p>2. Time 12h00 to 13h30pm.</p> <p>Confirmation of attendance to be notified at least one full working day in advance to:</p> <p>Name: Mr Chris van der Merwe Tel: 082-772-7848 Tel: (012) 998 8177 e-mail: chris@civec.net</p> <p>The onus rests with the tenderer to ensure that the person attending the clarification meeting on its behalf is appropriately qualified to understand all directives and clarifications given at that meeting.</p> <p>The clarification meeting shall start strictly at the time advertised. Only then will the Employer's Representative circulate the attendance register for completion by those present. During this time latecomers may enter and complete the register.</p> <p>On completion by all present the Employer's Representative will:</p> <ol style="list-style-type: none"> (a) read out from the collected lists calling for confirmation that all have signed; (b) close the door and not allow any latecomers to enter. <p>Tenderers must sign the attendance register in the name of the tendering, entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list</p>

Clause number	Data
4.11	The Procurement document as issued shall NOT be taken apart for purpose of submitting the Tender.
4.12	No alternative offers will be accepted
4.13.1	Submit one (1) tender only , either as single entity or as member of JV.
4.13.4	<p>The Tenderer is required to submit with his tender the following documents:</p> <p><u>PRE-QUALIFICATION CRITERIA FOR PREFERENTIAL PROCUREMENT</u></p> <p><u>BIDDERS WHO DO NOT MEET THE PRE—QUALIFICATION CRITERIA BELOW WILL BE DISQUALIFIED AND WILL NOT BE CONSIDERED FURTHER IN THE EVALUATION PROCESS:</u></p> <p>Bidders (including trusts, JV's and consortia) must have a stipulated minimum level 1 or 2 B-BBEE Status Level of contributor.</p> <ul style="list-style-type: none"> • Bidders who do NOT qualify as Exempted Micro Enterprises (EME's), or Qualifying Small Enterprises (QSE's) or QSE that is less than 51% black owned must submit B-BBEE verification certificates which have been prepared by an agency that is accredited by SANAS (South African National Accredited System) • A Qualifying Small Enterprise (QSE) that is at least 51% black owned or more is required to submit an original or certified copy of a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership in order to qualify to the next round of evaluation. • A Qualifying Small Enterprise (QSE) that is less than 51% black owned is required to submit a valid SANAS accredited original or certified copy of a <u>B-BBEE level of contribution certificate and submit a valid original Sworn Affidavit</u> confirming its annual total revenue of between R10 million and R50 million, based on the Financial Statements/Management Accounts and other information available on the latest financial year-end. • An Exempted Micro Enterprise (EME) is required to submit an original or certified copy of a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership in order to qualify to the next round of evaluation. <p>Affidavits submitted by bidders in support of their B-BBEE level should comply with the Department of Trade and Industry (DTI) format which can be found on the Companies and Intellectual Property Commission (CIPC) and/or the Department of Trade and Industry (DTI) website.</p> <p>Bidders are hereby advised that the Department shall examine and verify the authenticity of B-BBEE claims made by bidders.</p> <p>Broad-Based Black Economic Empowerment (B-BBEE) requires that bidders submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims. All trusts, consortia and joint ventures must obtain and submit a consolidated B-BBEE Status Level Verification Certificate. Failure to do so will result in the bidder being disqualified. Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates together with their bids.</p> <p><u>Sub-Contracting as a condition of tender</u></p> <p>The Bidder must sub-contract a minimum of 30% of the value of the contract as stipulated in section 9(2) (b-h) in the PPR 2017.</p> <p>The bidder must attach (as part of the submission) the sub-contractor's valid original or valid certified copy of a sworn affidavit commissioned by a Commissioner of Oaths or B-BBEE status level certificate from a SANAS accredited agency.</p>

Clause number	Data																		
4.13.4	<p>Those sub-contractors who will be involved in the execution of construction works must be registered with the CIBD and value of their sub-contracts must be in line with their respective CIBD grading (proof of CIBD grading or CRS number to be attached for each sub-contractor).</p> <p>A signed subcontracting agreement specifying the following must be included in bidder submissions:</p> <ul style="list-style-type: none"> • Details of the scope of work with total amounts for each selected subcontractor • Percentage allocated to each sub-contractor in relation to the scope <p>NB// BIDDERS MUST ONLY SUBCONTRACT WITH SUB-CONTRACTORS ON THE CSD LISTS ADVERTISED WITH THE TENDER</p> <table border="1"> <thead> <tr> <th>SERVICE</th> <th>CSD LINK</th> <th></th> </tr> </thead> <tbody> <tr> <td>HIGHWAY AND ROAD CONSTRUCTION SERVICES</td> <td>HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3275</td> <td>DRT02/09/2020 A</td> </tr> <tr> <td>CONSTRUCTION EQUIPMENT RENTAL OR LEASING SERVICE</td> <td>HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3276</td> <td>DRT02/09/2020 B</td> </tr> <tr> <td>SIDEWALK OR RAMP CONSTRUCTION SERVICE</td> <td>HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3277</td> <td>DRT38/11/2019 C</td> </tr> <tr> <td>ROAD AND RAILROAD CONSTRUCTION MATERIALS</td> <td>HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3278</td> <td>DRT02/09/2020 D</td> </tr> <tr> <td>HIGHWAY AND ROAD SIGN OR GUARDRAIL CONSTRUCTION AND REPAIR SERVICE</td> <td>HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3279</td> <td>DRT02/09/2020 E</td> </tr> </tbody> </table> <p>NB: Bidders who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.</p> <p><u>OTHER KEY RETURNABLES:</u></p> <ul style="list-style-type: none"> • Tax Compliance Status Pin (A trust, consortium or joint venture must submit a Tax Compliance Status Pin of each partner in the trust, consortium, or joint venture). • Registration Documents of the business with the Companies and Intellectual Property Commission (CIPC) OR Master of the High Court in South Africa • Central Supplier Database (CSD) registration summary report • Certified ID copies of company directors or members and shareholders. (NB: The date of certification must be less than 3 months from the date of the bid closure). 	SERVICE	CSD LINK		HIGHWAY AND ROAD CONSTRUCTION SERVICES	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3275	DRT02/09/2020 A	CONSTRUCTION EQUIPMENT RENTAL OR LEASING SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3276	DRT02/09/2020 B	SIDEWALK OR RAMP CONSTRUCTION SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3277	DRT38/11/2019 C	ROAD AND RAILROAD CONSTRUCTION MATERIALS	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3278	DRT02/09/2020 D	HIGHWAY AND ROAD SIGN OR GUARDRAIL CONSTRUCTION AND REPAIR SERVICE	HTTPS://SECURE.CSD.GOV.ZA/SEARCH/ADEDITFAVOURITE/3279	DRT02/09/2020 E
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4.13.5	<p>The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of tender box: GROUND FLOOR, LIFE CENTRE BUILDING, 45 COMMISSIONER STREET, MARSHALLTOWN, JOHANNESBURG.</p>																		

Clause number	Data
4.13.5	<p>Identification details: TENDER No. DRT 02/09/2020 THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.</p> <p>It is in the tenderer's interest to ensure that the delivery of the tender offer is recorded in the Employer's tenders received register.</p>
4.15	<p>Closing time for submission of tender offers is: 11h00 on 03 June 2021.</p> <p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
4.16	The tender offer's validity period is 90 days .
4.18.1	Any additional information requested under this clause must be provided within the time frame stated in the request.
4.20	The Tenderer is required to submit with this tender a Letter of Intent from an approved, Guarantor undertaking to provide the guarantees in the format included herewith (Form T2.2 G).
5.5	A two-envelope procedure will not be followed.
5.7	In the event of disqualification, the Employer may, at its sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to CIDB and National Treasury.
5.9	The tenderer is required to submit balanced unit rates for rate only items in the pricing schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.
5.11.1	<p>General</p> <p>Gauteng Roads and Transport, Roads Branch is committed to transformation, employment equity and staff advancement, and to supporting black economic empowerment. The primary criteria in selection, apart from costs, will be the degree to which the tenderer can demonstrate appropriate knowledge and expertise. A further consideration will naturally be the equity profile of the tenderer in management, ownership and implementation.</p> <p>The procedure for the evaluation of responsive tenders is Method 4.</p>
5.11.2	<p>Method 1: Financial offer</p> <p>This method shall not apply to this tender.</p>
5.11.3	<p>Method 2: Financial offer and quality</p> <p>This method shall not apply to this tender.</p>
5.11.4	<p>Method 3: Financial offer and preference</p> <p>This method shall not apply to this tender.</p>
5.11.5	<p>Method 4: Financial offer, quality and preference</p> <p>Method 4 shall apply to this tender. Refer to Tender Data items 5.11.7, 5.11.8 and 5.11.9.</p> <p>Quality will be scored out of 100 points and the minimum threshold to qualify is 70 points.</p> <p>Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:</p> $T_{EV} = N_{FO} + N_P$ <p>where</p>

Clause number	Data																
	<p>N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with 5.11.7;</p> <p>N_P is the number of tender evaluation points awarded for preferences claimed in accordance with 5.11.8.</p> <p>Note:</p> <p>The number of evaluation points awarded for quality in accordance with 5.11.9 will be applied to eliminate all tender offers that does not meet the minimum number of points as stated.</p> <p>If two or more tenderers score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for B-BBEE. If two or more tenderers score equal total points and equal preference points for B-BBEE, the contract must be awarded to the tenderer that scored the highest points for quality. If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.</p>																
<p>5.11.7</p> <p>5.11.7</p>	<p>Scoring financial offers</p> <p>The value of W_1 is:</p> <ul style="list-style-type: none"> - 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50 000 000,00 - 80 where the financial value inclusive of VAT of one or more responsive tenders received equals or is less than R 50 000 000,00. <p>The value of A will be calculated utilizing the following formula:</p> $A = (1 - (P - P_m) / P_m)$ <p>Where:</p> <p>P is the comparative offer of the tender offer under consideration; and</p> <p>P_m is the comparative offer of the most favorable comparative offer.</p> <p>In the event that the calculated value is negative, the allocated score shall be 0.</p>																
5.11.8	<p>Scoring preferences</p> <p>Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who submit responsive tenders and who are found to be eligible for the preference claimed.</p> <p>Points are based on a tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (B-BBEE, Act 53 of 2003) as Amended by the Broad-Based Black Economic Empowerment Amendment Act, 2013 (Act 46 of 2013) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000).</p> <p>In terms of Preferential Procurement Regulation of January 2017, the department will be applying the 90/10 preference point system. The B-BBEE Act requires that tenderers submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims.</p> <p>Points awarded will be according to a tenderer's B-BBEE status level of contributor and summarised in the table below:</p> <table border="1"> <thead> <tr> <th>B-BBEE Status Level of contributor</th> <th>Qualification</th> <th>Number of Points for Contract value up to R 50 000 000</th> <th>Number of Points for Contract Value above R 50 000 000</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>≥ 100 points</td> <td>20</td> <td>10</td> </tr> <tr> <td>2</td> <td>≥ 95 but < 100 points</td> <td>18</td> <td>9</td> </tr> <tr> <td>3</td> <td>≥ 90 but < 95 points</td> <td>14</td> <td>6</td> </tr> </tbody> </table>	B-BBEE Status Level of contributor	Qualification	Number of Points for Contract value up to R 50 000 000	Number of Points for Contract Value above R 50 000 000	1	≥ 100 points	20	10	2	≥ 95 but < 100 points	18	9	3	≥ 90 but < 95 points	14	6
B-BBEE Status Level of contributor	Qualification	Number of Points for Contract value up to R 50 000 000	Number of Points for Contract Value above R 50 000 000														
1	≥ 100 points	20	10														
2	≥ 95 but < 100 points	18	9														
3	≥ 90 but < 95 points	14	6														

Clause number	Data							
5.11.8	4	≥ 80 but < 90 points	12	5				
	5	≥ 75 but < 80 points	8	4				
	6	≥ 70 but < 75 points	6	3				
	7	≥ 55 but < 70 points	4	2				
	8	≥ 40 but < 55 points	2	1				
	Non-compliant Contributor	< 40 points	0	0				
5.11.8	<p>Eligibility for preference points is subject to the following conditions:</p> <ul style="list-style-type: none"> • A tenderer’s scorecard shall be measured in terms the latest amended Construction Sector Code in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, (Act No. 53 of 2003) as amended by the B-BBEE Act 46 of 2013 as issued by the Department of Trade and Industry; and • The Scorecard shall be submitted as a certificate attached to Returnable Schedule Form T2.1 H (SBD6.1); and • The certificate shall: <ul style="list-style-type: none"> - be an original or an original certified copy of the original; and - have been issued by a verification agency accredited by the South African National Accreditation System (SANAS); or - be in the form of a sworn affidavit or a certificate issued by the Companies and Intellectual Property Commission in the case of an Exempted Micro Enterprise (EME) or Qualifying Small Enterprise (QSE); and • The Verification Certificate must be valid at the tender closing date; and • The date of issue of the certificate must be less than twelve (12) months prior to the tender closing date; and • Compliance with any other information requested to be attached to Returnable Schedule Form T2.1 H (SBD6.1); • Failure to submit a valid verification certificate will result in the award of zero (0) points for preference; • In the event of a Joint Venture (JV), a project specific consolidated B-BBEE Verification Certificate in the name of the JV shall be submitted, as well as a valid B-BBEE Verification Certificate for each member of the JV; and • A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract. 							
5.11.9	<p>Scoring quality</p> <p>Quality will be scored out of 100 points and the minimum threshold to qualify is 70 points.</p> <p>Tenderers who fail to meet the minimum threshold will not be considered for further evaluation.</p> <p>The evaluation criteria to score tenderers on quality are as follows:</p> <table border="1"> <tr> <td colspan="2"> <p>1. Key Personnel (Max 30 points)</p> <p>Bidders MUST complete the T2.3 (Form B1 and B2) attached in the bid document for key personnel and MUST clearly indicate road Construction and/or Road Rehabilitation experience, project description, duration and contactable references. NB: (Failure to complete the T2.3 form and submit certified copies of qualifications will result in the bidder scoring zero points)</p> <p>Key personnel must be available full-time and dedicated to this project</p> </td> </tr> <tr> <td>Description:</td> <td>Points Awarded</td> </tr> </table>				<p>1. Key Personnel (Max 30 points)</p> <p>Bidders MUST complete the T2.3 (Form B1 and B2) attached in the bid document for key personnel and MUST clearly indicate road Construction and/or Road Rehabilitation experience, project description, duration and contactable references. NB: (Failure to complete the T2.3 form and submit certified copies of qualifications will result in the bidder scoring zero points)</p> <p>Key personnel must be available full-time and dedicated to this project</p>		Description:	Points Awarded
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Description:	Points Awarded							

Clause number	Data		
5.11.9	<p>CONSTRUCTION MANAGER: Must be registered and in good standing with ECSA (PrEng/ PrTech Eng) OR SACPCMP (PrCM). A Construction Manager with Construction and/or Road Rehabilitation experience, will be assessed as follows: (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years' or more experience in Construction and/or Road Rehabilitation (10 points) • 5 years' to less than 10 years' experience in Construction and/or Road Rehabilitation (5 points) • Less than 5 years' experience (0 points) 		/10
	<p>SITE AGENT: with at least a diploma in Civil Engineering must be permanently based on the site for the duration of the project. The Site Agent with Construction and/or Road Rehabilitation experience, will be assessed as follows: (Attach certified academic and completed B1 and B2 forms) (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years' or more experience in Construction and/or Road Rehabilitation (10 points) • 5 years' to less than 10 years' experience in Construction and/or Road Rehabilitation (5 points) • Less than 5 years' experience (0 points) 		/10
	<p>FOREMAN: must be permanently based on the site for the duration of the project. The Foreman with Construction and/or Road Rehabilitation experience will be assessed as follows: (Attach CV) (Max 5 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years' or more experience in Construction and/or Road Rehabilitation (5 points) • 4 years' to less than 10 years' experience Construction and/or Road Rehabilitation (3 points) • Less than 4 years' experience (0 points) 		/5
	<p>SAFETY OFFICER: a qualified Safety Officer must be registered and active with SACPCMP as a Safety Officer or Safety Manager (Candidate registration is not acceptable), must be permanently based on the site for the duration of the project. The Safety Officer with construction experience will be assessed as follows: (Attach certified professional registration certificate or professional registration number (Max 5 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 5 years' or more experience in construction (5 points) 		/5

Clause number	Data	
5.11.9	<ul style="list-style-type: none"> • 3 years' to less than 5 years' experience in construction (2 points) • Less than 3 years' experience (0 points) 	
	Sub Total Key Personnel	/30
	2. Company Experience in Road Rehabilitation/ Road Construction (Max 40 points) ((Failure to submit at least a completion or taking over or final approval certificate will result in the bidder scoring zero points) NB: Completion or taking over or final approval certificate must be signed by all relevant parties (Completion or taking over Certificate that is not signed by all relevant parties will result in the bidder forfeiting points)	
	Experience in Road Construction and/or Road Rehabilitation projects with completion certificates, completed since year 2000 will be assessed as follows: (Max 40 points) <ul style="list-style-type: none"> • 4 or more projects completed: (40 points) • 3 projects completed: (30 points) • 2 projects completed: (20 points) • 1 project completed: (10 points) • No project completed: (0 points) NB: Practical Completion certificate or equivalent will not be considered	/40
	Sub Total Company Experience in Road Rehabilitation/ Road Construction	/40
	3. Plant and Equipment (Max 15 points) Bidders MUST complete Form T2.1D: Schedule of Plant and Equipment (Failure to submit proof of ownership OR lease/hire agreements for plant and equipment will result in the bidder scoring zero points) Proof of ownership must be in the form of registration papers or Audited report indicating assets (plant).	
	Plant and equipment will be assessed as follows: <ul style="list-style-type: none"> • 1 x Pavement Recycling Machine (min 2.4m working width): (4 points) • 1 x Asphalt Milling Machine: (3 points) • 2 x Vibratory Steel Wheel Roller (9-12 tons): (1 point each, max 2 points) • 2 x Grader 140G motor similar: (1 point each, max 2 points) • 2 Tractor-Loader-Backhoe (TLB) (min 60 Kw): (1 point each, max 2 points) • 2 x Water carts (min 9000 litre capacity per water cart): (1 point each, max 2 points) 	/15

Clause number	Data	
5.11.9	Sub Total Plant and Equipment	/15
	4. Project Plan (Max 5 points) Bidders MUST note information provided on form T2.3C: PRELIMINARY PROGRAMME AND METHOD STATEMENT (Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder scoring zero points)	
	Project Plan: Contractor's detailed and complete construction programme (Gantt Chart). The chart must clearly indicate the activities and timeframe from Letter of appointment to last payment certificate on the project. This will be assessed as follows: (5 points) <ul style="list-style-type: none"> • Linkages between key activities: (2 points) • Indicate critical path: (2 points) • Completion date within the stipulated construction period: (1 point) 	/5
	Sub Total Project Plan	/5
	Bank Rating (Max 10 points) Failure to submit proof of bank rating from the relevant bank will result in the tenderer getting zero points. NB: the date of certification must be less than 12 months from the date of the tender closure.	
	Bank rating will be assessed as follows: <ul style="list-style-type: none"> • Rating A or B (10 points). • Rating C (5 points). • Rating D,E,G (0 points). 	/10
	Sub Total Bank Rating	/15
TOTAL POINTS FOR QUALITY	/100	
5.11.9	BIDDERS SHOULD NOTE THE FOLLOWING: <ul style="list-style-type: none"> • Where the proposed prices of critical materials to be supplied to the Department are considerably less than the expected market price or rates, the Department reserves the right to verify the proposed prices by requesting quotations from the supplier(s) cited in the compilation of the bid. • Only suppliers who are registered on the National Centralised Supplier Database (CSD) will be considered for appointment. 	

Clause number	Data
5.11.9	<ul style="list-style-type: none"> • Potential suppliers must note that in terms of department policy, the Department reserves the right to cancel a contract and blacklist any supplier for a period of 12 months if the supplier fails to adequately perform in terms of the awarded contract. • The bid validity period is 90 days. However, the Department reserves the right to request all bidders to extend such validity period should the need arise. • In terms of Occupational Health and Safety (OSH) Act the contractor is required to appoint a registered Safety officer with South African Council for the Project and Construction Management Professions (SACPCMP). Compliance in respect of the OSH is the responsibility of the contractor. • The successful bidder will be required to enter into a formal contract with the Department. Such a contract will be governed in terms of the General Conditions of Contract dated 2015. • The Department will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any tests which have been deemed necessary in the demonstration of compliance with the stated requirements (forming part of this RFP) • Bidders to ensure that all sub-contractors comply with the SARS Legislation. <p>Please note: Certification as a "true copy of the original", must comply with the requirements outlined in the Justices of the Peace and Commissioners of Oaths Act, No16 of 1963 and its Regulations promulgated in Government Notice GNR 1258 of July 1972 Justices of the Peace and Commissioners of Oaths Act, No. 16 of 1963.</p> <p>NB: Tenderers are requested to submit their key personnel contactable references for verification. Failure to do so may lead to points not being allocated. Potential suppliers must note that in terms of departmental policy, the department reserves the right to cancel and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.</p>
5.13	<p>The conditions stated in Clauses 5.13(a) to (f) of the Conditions of Tender as well as the following additional Clauses 5.13(g) to (p) shall be applied as objective criteria in terms of Section 2(1)(f) of the Preferential Procurement Policy Framework Act, 2000 and as compelling and justifiable reasons in terms of Conditions of Tender, Clause 5.13:</p> <ul style="list-style-type: none"> g) the Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; i) the Tenderer or any of its directors is not listed in 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; j) the Tenderer has not over the last five years failed to satisfactorily perform a contract for the Employer and has been issued with a written notice to this effect, and has not abused the Employer's Supply Chain Management System; k) the Tenderer submits an original valid Tax Clearance Certificate issued by the South African Revenue Service; l) the Tenderer is registered on the National Centralised Supplier Database (CSD). m) the Tenderer has completed the compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process. Persons in the employ of the State are not permitted to submit tenders or participate in the contract; n) the Tenderer is registered and in good standing with the Compensation Fund or with a licensed Compensation Insurer; and

Clause number	Data
	<p>o) the Employer is reasonably satisfied that the Tenderer has, in terms of the Construction Regulations 2014 and the OHS Act 1993 issued, the necessary competencies and resources to carry out the works safely</p> <p>p) the Employer is reasonably satisfied that the Tenderer has properly and comprehensively completed the information required in the Project Document and the Addenda, and has, inter alia properly completed the offer in the "Form of Offer and Acceptance" and the Bill of Quantities.</p> <p>In addition to the requirements under paragraph (b) of the Conditions of Tender, in the event that a due diligence is performed as part of the tender evaluation, the due diligence report will be used to evaluate the tenderer's ability to perform the contract as stated in sub-clause (b).</p>
5.17	The number of paper copies of signed contract to be provided by the Employer is one (1) .
5.19	All request shall be in writing.
Additional conditions of tender clauses:	
Clause number	Data
3.7	<p>Jurisdiction</p> <p>Unless stated otherwise in the Tender Data, each tenderer and the Employer undertake to accept the jurisdiction of the law courts of the Republic of South Africa.</p>



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

PART T2: RETURNABLE DOCUMENTS

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T2.2	OTHER RETURNABLE SCHEDULES REQUIRED FOR EVALUATION	T2.29
T2.3	RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT.....	T2.46



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.1 RETURNABLE SCHEDULE REQUIRED FOR EVALUATION

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T 2.1C	SCHEDULE OF PROPOSED SUBCONTRACTORS.....	T2.7
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T2.1E	SCHEDULE OF RECENTLY COMPLETED AND CURRENT CONTRACTS	T2.10
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T2.1G	DEVIATIONS OR QUALIFICATIONS BY THE TENDERER	T2.13
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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.1A 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.

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

A. Certificate for company

I,....., chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on20...., Mr/Mrs.....acting in the capacity of.....,was authorised to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witness

1.....

Chairman

2.....

Date

B. Certificate of partnership

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

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

NAME	ADDRESS	SIGNATURE	DATE

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

C. Certificate for Joint Venture

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

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

NAME OF FIRM	ADDRESS	AUTHORISING SIGNATURE, NAME & CAPACITY
Lead partner		

D. Certificate for sole proprietor

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

As Witness:

1.....
 Signature: Sole owner

2.....
 Date

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as.....hereby authorise Mr/Mrs.....

Acting in the capacity of....., to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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



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T2.1B CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that.....(Tenderer)

of.....

.....(address)

was represented by the person(s) named below at the Compulsory meeting held for all tenderers at(location) on.....(date), starting at.....

We acknowledge that the purpose of the meeting was to acquaint ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting:

Name Signature.....

Capacity.....

Name..... Signature.....

Capacity.....

Attendance of the above persons at the meeting is confirmed by the employer's representative/ engineer, namely:

Name..... Signature.....

Capacity..... Date & Time.....



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T 2.1C SCHEDULE OF PROPOSED SUBCONTRACTORS

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

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

	Name and address of proposed Subcontractor	Company Classification (EME, QSE etc.)	Company Registration No & CIDB Classification	Description of Work to be executed by Subcontractor	Rand Value of Work to be executed by Subcontractor	Percentage of Work to be executed by Subcontractor
1.						
2.						
3.						
4.						



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5.						
6.						
7.						
Total Rand Value and Percentage of Work to be Subcontracted:						

Note:

In terms of Clause No. 4.13.4 of the Tender Data the tenderer must attach (as part of the tender) a copy of the sub-contractor's document which discloses the B-BBEE status level of the sub-contractor's entity and a signed sub-contracting Agreement. All sub-contractors must be registered with the CIDB to complete any work on this contract as per their current approved grading. Provide proof of CIDB grading.

The Tenderers MUST note that a minimum of 40% will be subcontracted on the project, of which 30 % will be evaluated as part of the mandatory prequalification criteria as contain on the tender notice

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

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



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

Tenderer.....



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T 2.1D SCHEDULE OF PLANT AND EQUIPMENT

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

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

QTY	Description, size, capacity, etc.

Attach additional pages if more space is required.

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

QTY	Description, size, capacity, etc.

Attach additional pages if more space is required

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

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

Tenderer.....

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.****T2.1E SCHEDULE OF RECENTLY COMPLETED AND CURRENT CONTRACTS**

- (i) List not more than seven contracts **completed** in the last five years
- (ii) If Functionality Points are to be claimed, clearly **number** and attach to this page, certified copies of Certificates of Completion for projects that are relevant and similar to the project that is the subject of this tender. Write the attached certificates' **numbers** in the last column of the table below.

Contract title:	Employer (name) & Place (town)	Reference person Name & Tel	Contract Amount (R million)	Contract Period (months)	Date of Completion*	Cert of Completion's No
1.		Name				
		Tel				
2.		Name				
		Tel				
3.		Name				
		Tel				
4.		Name				
		Tel				
5.		Name				
		Tel				

(iii) List all current contracts that are **not complete** at the time of tender preparation

Project:	Employer (name) Place (town)	Reference person's Name & Tel	Contract Amount (R million)	Contract Period (months)	Date of Commencement & Expected Completion*
1.					
2.					
3.					
4.					
5.					
6.					

Signed..... Date

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

Tenderer.....



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T 2.1F RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

Attach copies of all Addenda received to this page.

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

Attach additional pages if more space is required.

Signed..... Date

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

Tenderer.....



TENDER NO 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

(SBD 6.1)

T2.1H PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2
- a) The value of this bid is estimated to exceed/~~not exceed~~ R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable;
- 1.3 Points for this bid shall be awarded for:
- (a) Price; and
- (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTOR	10
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
- 1) **B-BBEE Status level certificate issued by an authorized body or person;**
 - 2) **A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;**
 - 3) **Any other requirement prescribed in terms of the B-BBEE Act;**
- (i) **“QSE”** means a **qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;**
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

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

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

80/20	or	90/10
$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$	or	$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$

Where

- P_s = Points scored for price of bid under consideration
- P_t = Price of bid under consideration
- P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

(N.B: In completing this section of this form, the Bidders MUST note that a minimum of 40% will be subcontracted, of which 30% will be evaluated as part of the Mandatory prequalification criteria as contained in the Tender Notice.)

- 7.1 Will any portion of the contract be sub-contracted? YES

- 7.1.1 Indicate:

- i) What percentage of the contract will be subcontracted? Minimum of 40% will be subcontracted, of which 30% will be evaluated during mandatory prequalification
- ii) The name of the sub-contractor.....

iii) The B-BBEE status level of the sub-contractor.....

iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

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

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

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

8.6 COMPANY CLASSIFICATION

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

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (a) forward the matter for criminal prosecution.

WITNESSES:

- 1.
- 2.

SIGNATURES OF BIDDERS

.....

DATE:.....

ADDRESS:.....

.....

.....



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.1J COMPULSORY TRAINING PROGRAMME

Set out the details of the proposed training for Local Labourers and QSEs and EMEs in the schedules below:

A: TRAINING OF LOCAL LABOURERS OF THE CONTRACTOR'S AND HIS SUB-CONTRACTOR'S WORKFORCES					
NO. OF LABOURERS	TYPE OF WORK	SKILLS REQUIRED FOR THE TYPE OF WORK	DURATION OF TRAINING (PERSON-DAYS)	ESTIMATED COST	
TOTAL ESTIMATED COST					
B: TRAINING OF LOCAL QSE & EME CONTRACTORS					
LIST OF COURSES FOR BUSINESS DEVELOPMENT SKILLS	LIST OF COURSES FOR MANAGEMENT SKILLS	LIST OF OTHER COURSES (SPECIFY)	ACCREDITED INSTITUTIONS THAT WILL PRESENT THE COURSES	DURATION OF EACH COURSE (DAYS)	ESTIMATED COST
TOTAL ESTIMATED COST					



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.1K QUALITY MANAGEMENT QUESTIONNAIRE

1. Does the Tenderer have a quality management system which is certified in terms of the ISO 9001 : 2000?

YES	NO
-----	----

3. If "yes", tenderer to supply brief summary of structure or system.

.....

3. If "no", does the tenderer intend to apply for certification and by when?

YES	NO
-----	----

Date:

If the tenderer does not intend to apply for certification he shall submit details of the quality management system presently in place.

Signed.....

Date.....

Name.....

Position.....

Tenderer.....

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.****T2.1L OCCUPATIONAL HEALTH AND SAFETY QUESTIONNAIRE**

1.	Does your company have an updated copy of the Occupational Health and Safety Act and the relevant Regulations, (Act 85, of 1993) readily available?	YES/NO
2.	Have you and your supervisors received any training on the requirements of the Act and the relevant regulations? If YES, please provide proof.	YES/NO Attach Proof
3.	Are you, your supervisors and permanent employees aware, informed, instructed or trained in your respective legal liabilities with regard to Occupational Health and Safety Legal Liabilities? If YES, please provide explanatory proof.	YES/NO Attach information
4.	How do you ensure that the requirements of the Occupational Health and Safety Act are complied with by yourself and every person in your employment? Provide an overview	Attach information
5.	Have you identified as far as reasonably practical all Health and Safety hazards and assessed all associated risks related to your activities and work environment? If YES, please provide evidence.	YES/NO Attach information
6.	If YES, how and what reasonably practical steps do you take to eliminate or mitigate the hazards and associated risks identified? How do you provide and maintain Health and Safety in your work environment for your employees and persons other than those in your employment that may be directly affected by your activities?	Attach information
7.	Do you provide for and maintain systems of work, plant and machinery that, as far as is reasonable practical, are safe and without risk to health? If so, what are they? Please provide evidence	YES/NO Attach information
8.	Do you have a clearly defined scope of authority for your organization, including all supervisors and employees? If YES, please provide a copy of the latest valid organogram and scope of authority (Submit proof).	YES/NO Attach information
9.	Do you have a first aid and emergency procedure or standard and trained first aid employees? If YES, please provide evidence	YES/NO Attach information

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.**

10.	Do you provide your employees with personal protective equipment and facilities? If yes, please attach a list of PPE per occupation	YES/NO Attach information
11.	Do you assess the OH&S Performance of any potential sub-contractor? If YES provide a copy of a sub-contractor assessment.	YES/NO Attach information
12.	Who is responsible and accountable for the Occupational Health and Safety of your employees and those persons other than your employees that may be affected by your activities?	Attach information
13.	Please list three (3) recent similar projects and references with regard to your company's safety performance?	Attach information
14.	Please advise us of the following with regard to your company's current Workers Compensation Policy: -Name of insurer: -Policy Number: -Insurance premium as a percentage of payroll: -Attach a letter of good standing from your insurer.	Attach information
15.	Are records of your Workers Compensation premiums over the last year available to us upon request?	YES/NO
16.	Does your company have a Safety, Health & Environmental (SHE) policy? If YES, please provide an overview	YES/NO Attach information
17.	Does your company have a recognized/auditable Health and Safety management system? If YES, please provide an overview.	YES/NO Attach information
18.	Do you have active Health and Safety Representatives & Committees in place for each project? If YES, please provide copies of the latest minutes.	YES/NO Attach information
19.	Does your company conduct: a) Annual medical examinations? b) Entry and exit medical examinations?	YES/NO YES/NO
20.	Does your company keep records for the measurement of Health and Safety performance? * If YES, what indicators are used for this performance measurement? * Please provide copies of the Health and Safety incident register (synopsis) for the past 12 month period. (Refer Annexure A).	YES/NO Attach information Attach information

	* Provide the number of employees per month as well as the number of man-hours worked per month for the last 12 months. (Refer Annexure B).	Attach information
21.	Does your company set Health and Safety targets and objectives? If so, what are they for the current year and indicate how they compare with the previous year	YES/NO Attach information
22.	Has your Health and Safety system been assessed/audited by an independent party? If YES, please provide a copy of the latest valid assessment/audit for a construction site. (Submit proof).	YES/NO
23.	Does your company employ permanent Health and Safety Officers and or a health and Safety Manager/Co-ordinator?	YES/NO
24.	Does your company carry out training for personnel in Health and Safety related issues pertaining to your area of capability? If YES, please attach the Health and Safety training requirements for all job categories.	YES/NO Attach information
25.	Does executive management attend health and Safety meetings and carry out executive management safety audits?	YES/NO
26.	Was a health risk assessment done to identify and evaluate health risks due to the potential exposure in conducting their work?	YES/NO

Note:

The information provided by you will be deemed as privileged information and will only be used in the selection process to determine the successful contractors and or sub-contractors.

Agreement:

I declare that all information provided in the health and safety selection criteria questionnaire, are accurate and true. I do realise that the information given by me will be verified and false information will lead to automatic disqualification.

Signed..... Date

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

Tenderer.....



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T2.1M KEY PERSONNEL

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilise on the Works, including key personnel which may have to be brought in from outside if not available locally.

Category of employee	Number of persons	
	Personnel, part of the Contractor's organisation	Personnel to be contracted if not available within the employ of the company
# Construction Manager		
# Senior Site Agent		
# General Foreman		
# Safety Officer		

Notes: The categories marked are Key Personnel

SIGNATURE:
 (of person authorised to sign on behalf of Tenderer)

DATE:



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T2.1N COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1 : Name of enterprise :

Section 2 : VAT registration number, if any :

Section 3 : CIDB registration number:

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 or 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 an accounting authority of any national or provincial public entity
<input type="checkbox"/> A member of the National Assembly or the National Council of Province	<input type="checkbox"/> An employee of Parliament or a provincial legislature
<input type="checkbox"/> A member of the Board of Directors of any Municipality entity	
<input type="checkbox"/> An official of any municipality or municipal Entity	

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 parent in the service of the state

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

- | | |
|---|---|
| <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 an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> A member of the National Assembly or the National Council of Provinces | <input type="checkbox"/> An employee of Parliament or a provincial Legislature |
| <input type="checkbox"/> A member of the Board of Directors of any Municipal entity. | |
| <input type="checkbox"/> An official of any municipality or municipal Entity | |

If any of the above 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 authorised to do son on behalf of the enterprise :

- i. Authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services to confirm that my/our tax matters are in order;
- ii. Confirms that neither the name of the enterprise or the name of any partner manager, director or other person, who wholly or partly exercise, 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 2001;
- iii. Confirms that no partner, member, director or other person who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;
- iv. Confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers, or those responsible for compiling the scope of work, that could cause, or be interpreted as, a conflict of interest;
- v. Confirm 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



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T2.2 OTHER RETURNABLE SCHEDULES REQUIRED FOR EVALUATION

T2.2 A	DECLARATION OF GOOD STANDING REGARDING TAX(SBD2).....	T2.30
T2.2 B	CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION.....	T2.32
T2.2 C	COMMISSIONER OF OATHS CERTIFICATION	T2.33
T2.2 D	DECLARATION OF INTEREST(SBD4)	T2.34
T2.2 E	CERTIFICATE OF INDEPENDENT BID DETERMINATION(SBD9)	T2.37
T2.2 F	DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES(SBD8).....	T2.39
T2.2 G	FORM OF INTENT TO PROVIDE A GUARANTEE	T2.41
T2.2 H	LETTER OF INTENT TO PROVIDE INSURANCE.....	T2.45

TAX CLEARANCE CERTIFICATE REQUIREMENTS

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

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



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T2.2 B CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION

The tenderer is to affix to this page:

- Written proof of his **Category 9CE** registration with the CIDB

Or

- Written proof of his application to the CIDB for registration as a contractor in the category listed above

Note:

Failure to affix such documentation as prescribed to this page shall result in this tender not being further considered for the award of the contract.

Should this tender be considered for award of the contract, based on proof of submission of application for registration in the appropriate category with the CIDB, and should proof of such subsequent registration not be forthcoming to the employer by the time of award of the contract, then this tender will no longer be considered for the award of the contract



GAUTENG PROVINCE
Department: Roads and Transport
REPUBLIC OF SOUTH AFRICA

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T2.2 C COMMISSIONER OF OATHS CERTIFICATION

SIGNATURE
(DULY AUTHORISED TO SIGN)

ON BEHALF OF

ADDRESS

.....

.....

.....

TELEPHONE NO.

DATE

COMMISSIONER OF OATHS:

SIGNATURE:

DATE:

STAMP:

MUST BE DATE STAMPED AND SIGNED BY A COMMISSIONER OF OATHS



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SBD 4

T2.2 D DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- The bidder is employed by the state; and/or
- The legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

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

2.1. Full name of bidder or his or her representative:

2.2. Identity number:.....

2.3. Position occupied in the company (director, trustee, shareholder², member):
.....

2.4. Registration number of company, enterprise, close corporation, partnership agreement or trust:
.....

2.5. Tax reference number:

2.6. Vat registration number:

¹“State” means –

- a) 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);
- b) any municipality or municipal entity;
- c) provincial legislature;
- d) national Assembly or the national Council of provinces; or
- e) Parliament.

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

2.7. Are you or any person connected with the bidder presently employed by the state? **YES/NO**

2.7.1. If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person Connected to the bidder is employed:

Position occupied in the state institution:

Any other particulars:

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

2.7.2. If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1. If yes, did you attach proof of such authority to the bid document? **YES / NO**

(Note: failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.)

2.7.2.2. If no, furnish reasons for non-submission of such proof:

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

2.8. Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES / NO**

2.8.1. If so, furnish particulars:

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

2.9. Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.9.1. If so, furnish particulars.

.....
.....

2.10. Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract? **YES/NO**

2.10.1. If so, furnish particulars:

.....

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

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

4. DECLARATION

I, _____ THE _____ UNDERSIGNED
 (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.

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

.....
 Signature

.....
 Date

.....
 Position

.....
 Name of bidder



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SBD 9

T2.2 E 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 Institution)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

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

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



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SBD 8

T2.2 F DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have -
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		

4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder



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T2.2 G FORM OF INTENT TO PROVIDE A GUARANTEE

With reference to Clause C3.3 of the contract, The Tenderer **must attach hereto a letter from the bank or institution with whom he has made the necessary arrangements**, to the effect that the said bank or institution will be prepared to provide a completed performance guarantee in the format below, **without any amendments** when asked to do so. The Pro-forma below is for the tenderers use.

PRO-FORMA OF A GUARANTEE

Employer' name and address: **DEPARTMENT OF ROADS AND TRANSPORT, LIFE CENTRE BUILDING, 45 COMMISSIONER STREET, JOHANNESBURG**

Contract No: **DRT 02/09/2020**

Contract title: **THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.**

PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:.....

Physical address:.....

"Employer" means:.....

"Contractor "means:

"Employer's Agent" means:.....

"Works" means:

"Site" means:

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

"Contract Sum" means: The accepted amount inclusive of tax of R

Amount in words:

"Guaranteed Sum" means: The maximum aggregate amount of R

Amount in words:

Type of Performance Guarantee:(Insert Variable or Fixed)

"Expiry Date" means:

CONTRACT DETAILS

Employer's Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate

Completion of the Works as defined in the Contract.

1. VARIABLE PERFORMANCE GUARANTEE

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

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

(Amount in Words.....)

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

R.....

(Amount in Words.....)

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

2. FIXED PERFORMANCE GUARANTEE

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

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

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

3. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

3.1. The Guarantor hereby acknowledges that:

- 3.1.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
- 3.1.2. Its obligation under this Performance Guarantee is restricted to the payment of money.
- 3.2. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:
 - 3.2.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;
 - 3.2.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;
 - 3.2.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.
- 3.3. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 3.3.1. The Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
 - 3.3.2. A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and
 - 3.3.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 3.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.
- 3.5. Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

- 3.6. Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 3.7. Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 3.8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 3.9. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 3.10. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 3.11. This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 3.12. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at:

Date:

Guarantor's signatory (1):

Capacity:.....

Guarantor's signatory (2):

Capacity:.....

Witness signatory (1):.....

Witness signatory (2):



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.2 H LETTER OF INTENT TO PROVIDE INSURANCE

The Tenderer must attach hereto a letter of intent to provide insurance.



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

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

T2.3 A	ORGANOGRAM , FORM B1 & B2, CURRICULUM VITAE OF KEY PERSONNEL.....	T2.47
	FORMAT OF CURRICULUM VITAE.....	T2.79
T2.3 B	PROJECT PROGRAMME AND METHOD STATEMENT	T2.80
T2.3 C	RATES FOR SPECIAL MATERIALS	T2.81



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

T2.3 A ORGANOGRAM, FORM BELOW OF KEY PERSONNEL

The Tenderer shall supply an **organogram** for the management of the contract and include form below of key personnel according to the format on the following page. These forms shall provide evidence of relevant experience of the key staff in the organogram. The personnel included here shall be used on the project unless otherwise agreed by the Engineer. Form shall be provided for at least the **Construction Manager, Site Agent, Foremen, and Safety Officer.**



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) -APPROXIMATELY 9,4 KM.

(i) FORM B1: CANDIDATE'S TECHNICAL/MANAGERIAL RECORD

Construction Manager/Civil Engineer

NAME	DATE OF BIRTH	POSITION IN TEAM

Note:

- List only the projects completed in the last years that the tenderer considers relevant to the specified scope of works.
- Form to be completed per candidate per designated position in team.
- Tenderers to add additional copies of this form as necessary to their tender submissions

Technical/Managerial Experience

CLIENT & PROJECT NO.	PROJECT TYPE	RELEVANT EXPERIENCE STARTED	RELEVANT EXPERIENCE ENDED	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

CLIENT & PROJECT	PROJECT TYPE	RELEVANT EXPERIENCE	RELEVANT EXPERIENCE	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	DNC



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

(ii) FORM B2: CANDIDATE'S CONTINUING PROFESSIONAL DEVELOPMENT RECORD

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

Personal Details of Candidate

Name	Position in team	Position in Company

Registration with professional bodies

Professional registration body	ECSA	SACPCMP	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type	Host Institute	Participation	Course Content	When held	Field Study

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 1) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 2) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 3) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.
ECSA = Engineering Council of South Africa
SACPCMP = South African Council for the Project and Construction Management Professions
- 4) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 5) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 6) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 7) Only enter courses attended within the last five years. Give month and year of the course.
- 8) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					
Senior Materials technician	SMT					
Contracts manager	CM					
Site agent	SA					



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

(i) FORM B1: CANDIDATE'S TECHNICAL/MANAGERIAL RECORD

Site Agent

NAME	DATE OF BIRTH	POSITION IN TEAM

Note:

- List only the projects completed in the last years that the tenderer considers relevant to the specified scope of works.
- Form to be completed per candidate per designated position in team.
- Tenderers to add additional copies of this form as necessary to their tender submissions

Technical/Managerial Experience

CLIENT & PROJECT NO.	PROJECT TYPE	RELEVANT EXPERIENCE STARTED	RELEVANT EXPERIENCE ENDED	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

CLIENT & PROJECT	PROJECT TYPE	RELEVANT EXPERIENCE	RELEVANT EXPERIENCE	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	DNC

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.****(ii) FORM B2: CANDIDATE'S CONTINUING PROFESSIONAL DEVELOPMENT RECORD**

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

Personal Details of Candidate

Name	Position in team	Position in Company

Registration with professional bodies

Professional registration body	ECSA	SACPCMP	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type	Host Institute	Participation	Course Content	When held	Field Study

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 9) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 10) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 11) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.
ECSA = Engineering Council of South Africa
SACPCMP = South African Council for the Project and Construction Management Professions
- 12) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 13) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 14) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 15) Only enter courses attended within the last five years. Give month and year of the course.
- 16) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					
Senior Materials technician	SMT					
Contracts manager	CM					
Site agent	SA					



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

(i) FORM B1: CANDIDATE'S TECHNICAL/MANAGERIAL RECORD

Foremen

NAME	DATE OF BIRTH	POSITION IN TEAM

Note:

- List only the projects completed in the last years that the tenderer considers relevant to the specified scope of works.
- Form to be completed per candidate per designated position in team.
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Technical/Managerial Experience

CLIENT & PROJECT NO.	PROJECT TYPE	RELEVANT EXPERIENCE STARTED	RELEVANT EXPERIENCE ENDED	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

CLIENT & PROJECT	PROJECT TYPE	RELEVANT EXPERIENCE	RELEVANT EXPERIENCE	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

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COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	DNC

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.****(ii) FORM B2: CANDIDATE'S CONTINUING PROFESSIONAL DEVELOPMENT RECORD**

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

Personal Details of Candidate

Name	Position in team	Position in Company

Registration with professional bodies

Professional registration body	ECSA	SACPCMP	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type	Host Institute	Participation	Course Content	When held	Field Study

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 17) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 18) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 19) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.
ECSA = Engineering Council of South Africa
SACPCMP = South African Council for the Project and Construction Management Professions
- 20) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 21) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 22) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 23) Only enter courses attended within the last five years. Give month and year of the course.
- 24) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					
Senior Materials technician	SMT					
Contracts manager	CM					
Site agent	SA					



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

(i) FORM B1: CANDIDATE'S TECHNICAL/MANAGERIAL RECORD

Safety Officer

NAME	DATE OF BIRTH	POSITION IN TEAM

Note:

- List only the projects completed in the last years that the tenderer considers relevant to the specified scope of works.
- Form to be completed per candidate per designated position in team.
- Tenderers to add additional copies of this form as necessary to their tender submissions

Technical/Managerial Experience

CLIENT & PROJECT NO.	PROJECT TYPE	RELEVANT EXPERIENCE STARTED	RELEVANT EXPERIENCE ENDED	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

CLIENT & PROJECT	PROJECT TYPE	RELEVANT EXPERIENCE	RELEVANT EXPERIENCE	VALUE	POSITION HELD	CONTACT PERSON AND POSITION	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS **(Commissioner's stamp)**

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	DNC

**TENDER NO. DRT 02/09/2020****THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.****(ii) FORM B2: CANDIDATE'S CONTINUING PROFESSIONAL DEVELOPMENT RECORD**

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

Personal Details of Candidate

Name	Position in team	Position in Company

Registration with professional bodies

Professional registration body	ECSA	SACPCMP	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type	Host Institute	Participation	Course Content	When held	Field Study

I declare that I have read and understand the meaning of the Note to tenderer on the next page and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:

SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 25) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 26) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 27) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.
 ECSA = Engineering Council of South Africa
 SACPCMP = South African Council for the Project and Construction Management Professions
- 28) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 29) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 30) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 31) Only enter courses attended within the last five years. Give month and year of the course.
- 32) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					
Senior Materials technician	SMT					
Contracts manager	CM					
Site agent	SA					



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T2.3 A ORGANOGRAM, CURRICULUM VITAE OF KEY PERSONNEL

The Tenderer shall supply an organogram for the management of the contract and include curricula vitae of key personnel according to the format on the following page. These curricula vitae shall provide evidence of relevant experience of the key staff in the organogram. The personnel included here shall be used on the project unless otherwise agreed by the Engineer. Curricula vitae shall be provided for at least the Contracts Manager, Site Agent, Foremen and Safety Officer.



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FORMAT OF CURRICULUM VITAE

Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional registration number:	
Name of employer (firm):	
Current position:	Years with firm:
<u>Employment record:</u>	
<u>Experience record pertinent to required service:</u>	

Certification:

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



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.....
Signature of person named in the schedule

.....
Date

T2.3 B PROJECT PROGRAMME AND METHOD STATEMENT

Tenderers shall supply a project programme in the form of a Gantt chart and in sufficient detail to cover the various facets of the works.

This programme is to be supported by a method statement of the tenderer's proposed work plan for the construction of the works.

The programme shall clearly show **any phases of the project** as may be referred to in the Scope of Works.

Tenderers are to submit their **quality plan and procedures summary in point note form**, which will ensure compliance with the employers requirements.

Failure to submit project programme in the requested format and quality plan will result in the bidder forfeiting the available points.



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T2.3 C RATES FOR SPECIAL MATERIALS

Only the bitumen content of products will be dealt with as a special material in terms of subclause 6.8.3 of the General Conditions of Contract. All bitumen products as indicated in the contract data must be stated in the list below. No additives or blending agents of non-bituminous content shall be considered as special materials.

The rates and prices for the special materials shall be furnished by the contractor, which rates and prices shall exclude VAT but shall include all other obligatory taxes and levies.

SPECIAL MATERIALS	UNIT *	RATE OR PRICE FOR THE BASE MONTH (Excl VAT)

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

When called upon to do so, the contractor shall substantiate the above rates or prices with acceptable documentary evidence from the applicable refinery supplying the bitumen.

SIGNED ON BEHALF OF TENDERER:.....



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THE CONTRACT

PART C1	AGREEMENT AND CONTRACT DATA
PART C2	PRICING DATA
PART C3	SCOPE OF WORKS
PART C4	SITE INFORMATION
PART C5	ANNEXURES



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

PART C1: AGREEMENT AND CONTRACT DATA

C1.1	FORM OF OFFER AND ACCEPTANCE.....	C1.2
C1.2	AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993)	C1.7
C1.3	PERFORMANCE GUARANTEE	C1.10
C1.4	CONTRACT DATA	C1.14



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

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:

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

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

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

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

.....

..... Rand (in words);

R..... (in figures).

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

For the Employer:

.....
Signature

.....
Name

.....
Capacity

Name and address of organisation:

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

Signature and name of witness:

.....
Signature

.....
Name

ACCEPTANCE

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

The terms of the contract, are contained in

- Part 1 Agreements and Contract Data, (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work.
- Part 4 Site Information

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

C1.4

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 authorised representative(s) of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

For the Employer:

.....
Signature

.....
Name

.....
Capacity

Name and address of organisation:

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

Signature and name of witness:

.....
Signature

.....
Name

.....
Date

Schedule of Deviations

Notes:

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

1 Subject

Details

2 Subject

Details

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:

For the Employer:

..... Signature

..... Name

..... Capacity

Name and address of organisation:

Name and address of organisation:

.....

.....

.....

.....

.....

.....

..... Witness Signature

..... Witness Name

..... Date



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C1.2 AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993)

THIS AGREEMENT made aton this the day of in the year..... between **THE DEPARTMENT OF ROADS AND TRANSPORT**, Roads Branch (hereinafter called "the Employer") on the one part, herein represented by in his capacity asand delegate of the Employer and..... (hereinafter called "the Principal Contractor") of the other part, herein represented by in his capacity as

WHEREAS the Employer is desirous that certain works be constructed, viz **THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.** and has accepted a tender by the Principal Contractor for the construction, completion & maintenance of such works and whereas the Employer and the Principal Contractor have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Principal Contractor with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993 and the Construction Regulation, February 2014);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Principal Contractor shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good from its commencement date, which shall be the date of a written notice from the employer or engineer requiring him to commence the execution of the Works, to either:
 - a) the date of the final certificate issued in terms of clause 6.10 of the General Conditions of Contract for Construction Works 2015 (3rd Edition) as issued by the South African Institution of Civil Engineering (hereinafter referred to as "the GCC 2015"),
 - b) as contained in the contract documents pertaining to this contract, or
 - c) the date of termination of the contract in terms of clauses 9.1, 9.2 or 9.3 of the GCC 2015.

3. The Principal Contractor declares himself to be conversant with the following:-
 - a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act.
 - i) Section 8: General duties of employers to their employees.
 - ii) Section 9: General duties of employers and self-employed persons to persons other than employees.
 - iii) Section 37: Acts or omissions by employees or mandatories and
 - iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
 - v) Construction Regulations 2014, and other safety regulations, as applicable.
 - b) The procedures and safety rules of the employer as pertaining to the Principal Contractor and to all his sub-contractors.
4. The Principal Contractor is responsible for the compliance with the Act by all his sub-contractors, whether or not selected and/or approved by the employer.
5. The Principal Contractor warrants that all his and his sub-contractors' employees are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such employees are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
6. The Principal Contractor undertakes to ensure that he and/or his sub-contractors and/or their respective employees will at all times comply with the following conditions:
 - a) The Principal Contractor shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Principal Contractor shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Principal Contractor obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
 - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Principal Contractor to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Principal Contractor and/or his employees and/or his sub-contractors.

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

SIGNED FOR AND ON BEHALF OF THE EMPLOYER:.....

WITNESS: 1..... 2

NAME (IN CAPITALS) 1..... 2

SIGNED FOR AND ON BEHALF OF THE CONTRACTOR:

WITNESS: 1..... 2

NAME (IN CAPITALS) 1..... 2



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

C1.3 PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical address:

"Employer" means:

"Contractor "means:

"Employer's Agent" means:

"Works" means:

"Site" means:

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

"Contract Sum" means: The accepted amount inclusive of tax of R

Amount in words:

"Guaranteed Sum" means: The maximum aggregate amount of R

Amount in words:

Type of Performance Guarantee: *(Insert Variable or Fixed)*

"Expiry Date" means:

CONTRACT DETAILS

Employer's Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate

Completion of the Works as defined in the Contract.

4. VARIABLE PERFORMANCE GUARANTEE

- 3.13. Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods to diminishing amounts of the Guaranteed Sum as follows:
 - 1.2.1. From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum: R.....
(Amount in Words.....)
 - 1.2.2. From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, whichever occurs first:
R.....
(Amount in Words.....)
- 1.3. The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

5. FIXED PERFORMANCE GUARANTEE

- 2.4. Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
- 2.5. The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.
- 2.6. The Employer's Agent and/or Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion has been issued.

6. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

- 5.1. The Guarantor hereby acknowledges that:
 - 5.1.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 5.1.2. Its obligation under this Performance Guarantee is restricted to the payment of money.
- 5.2. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:
 - 5.2.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment

within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;

- 5.2.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;
- 5.2.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.
- 5.3. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.3.1. The Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
 - 5.3.2. A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and
 - 5.3.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 5.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.
- 5.5. Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 5.6. Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 5.7. Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 5.8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 5.9. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

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

Signed at:

Date:

Guarantor's signatory (1):

Capacity:.....

Guarantor's signatory (2):

Capacity:.....

Witness signatory (1):.....

Witness signatory (2):



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

C1.4 CONTRACT DATA

C1.4.1 Conditions of Contract

The Conditions of Contract applicable are the General Conditions of Contract for Construction Works 3rd Edition (2015) published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685.

C1.4.2 Contract Specific Data

The following Contract Specific data, referring to the General Condition of Contract for Construction Works, 3rd Edition 2015 are applicable to this contract.

Section 1: Data provided by the Employer

Clause	
1.1.1.5	The " Commencement date " shall be the date the site is handed over to the Contractor and after the guarantees have been delivered to the Client and the construction permit has been supplied to the Contractor.
1.1.1.15	The Employer is the Department of Roads and Transport, Roads Branch, Gauteng Provincial Government.
1.1.1.16	The Employer's Agent is CivEc Civil Engineering Consultants
1.2.1	The employer's address for receipt of communication is: Telephone: 011 355 7050 Facsimile: 011 355 7003 Address: Department of Roads and Transport Roads Branch Ground Floor Life Centre Building 45 Commissioner Street Johannesburg
1.2.1	The Employer's Agent's address for receipt of communication is: Telephone: (012) 998 5463 Facsimile: (012) 998 3619 e-mail: chris@civec.net Address: CivEc Civil Engineering Consultants 20 Volt Street Moreleta Park, Pretoria P.O. Box 100159 Moreleta Plaza, 0167
2.5.1	NO cession payments will be made.

Clause	
3.1.1	The Employer's Agent is required in terms of his appointment with the employer to obtain the following specific approvals from the Employer: Clauses 2.2.3, 3.2.1, 3.2.4, 4.7, 5.8.1, 5.11.2, 5.11.3, 5.12.4, 5.13.2, 5.14.1, 5.16.1, 6.3.2, 6.5, 6.6.1, 6.10.7, 6.11, 7.8.2 and 8.2.2.
3.2.3	The Employer's Agent requires the Employer's approval in order to authorise any expenditure in excess of the Contract Sum.
4.4.3	The minimum Procurement requirements , regarding the portions of the Contract Price to be spent on sub-contractors and labour, are set out in clause C3.3 "Procurement" of the Scope of the Work.
5.1.1.	The non-working days are Saturdays and Sundays The special non-working days are the following statutory public holidays as declared by National Government; New Year's day, Human Rights Day, Good Friday, Family Day, Freedom Day, Worker's Day, Youth Day, National Women's Day, Heritage Day, Day of Reconciliation, Christmas Day and Day of Goodwill. Written permission must be obtained to work during these days and any statutory declared election days.
5.1.1	The year-end break commences on 16 December 2018 and ends on 15 January 2019.
5.3.1	The Works are to be commenced within 14 days of the Commencement Date.
5.5	The Works shall be completed within eighteen (18) months, including the year-end break and special non-working days, as envisaged by the employer.
5.6.1	The Works programme is to be delivered within 14 days of the Commencement Date.
5.13.1	The penalty for delay is 1/30% of the Contract price per calendar day or part thereof plus all the Employer's Agent's costs including VAT as invoiced to the Employer for maintaining a presence on the site, from the day after the Due Completion Date up to and including the certified date of Practical Completion.
5.16.3	The latent defect Period is 10 years after the issue of Final Approval Certificate.
6.2	The Guarantee is to contain the same wording as the document included as the pro-forma referred to in Clause C1.3 in part C1 of the contract.
6.2	The amount of the Guarantee is to be 10% of the Contract Price.
6.2	The Guarantee (and Insurance) is to be delivered 14 days after the request to do so and the Form of Acceptance will not be signed before receipt of a Guarantee that is acceptance to the Employer. Failure to submit the guarantee within the 14 days will lead to the cancellation of the appointment
6.5.1	Daywork allowances as tendered in Section 18 of the Bill of Quantities. Materials at cost plus 10% .

6.8.2	<p>The value of payment certificates is to be adjusted in accordance with the revised Contract Price Adjustment Schedule on page 86 of GCC 2015, according to the formula:</p> $(1 - x) \left[\frac{aLt}{Lo} + \frac{bPt}{Po} + \frac{cMt}{Mo} + \frac{dFt}{Fo} - 1 \right]$ <p>The value of "x" is 0,150 The values of the co-efficient are: a = 0,25 b = 0,30 c = 0,35 d = 0,10</p>
	<p>"L" is the "Labour Index" and shall be the Consumer Price Index for the urban area nearest to the Site, as stated in the Contract Data, and as published in the Statistical News Release, P0141, Additional Tables: Table 14 "CPI – all items according to area" of Statistics South Africa.</p> <p>"P" is the "Plant Index" and shall be the Producer Price Index applicable to the appropriate Construction Equipment as stated in the Contract Data and as published in the Statistical Release P0151, Table 4 of Statistics South Africa.</p> <p>"M" is the "Materials Index" and shall be the Producer Price Index applicable to the appropriate materials as stated in the Contract Data and as published in the Statistical Release P0151, Table 3 or Table 4 of Statistics South Africa.</p> <p>"F" is the "Fuel Index" and shall be the Producer Price Index for Diesel at wholesale level for the area as stated in the Contract Data and as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.</p> <p>The suffix "o" denotes the base indices applicable to the base month as stated in the Contract Data.</p> <p>If any index relevant to any particular certificate is not known at the time when the certificate is prepared, the Engineer shall estimate the value of such index. Any correction, which may be necessary when the correct indices become known, shall be made by the Engineer in subsequent payment certificates.</p> <p>The site falls within the Tshwane Municipal Area.</p> <p>The base month is one month prior to the closing date of the tender, i.e. 23 March 2018.</p>
6.8.3	<p>The following are special materials:</p> <p>Only the bitumen content of all bituminous products</p> <p>The rates and prices for the special materials shall be furnished by the contractor, which rates and prices ex refinery with the base date specified under 6.8.2 and shall exclude VAT but shall include all other obligatory taxes and levies on the basis specified in the contract price adjustment schedule (paragraph 4(i) and 4(ii)).</p>
6.10.1.5	<p>The percentage limit on materials not yet built into the Permanent Works is 80%.</p>
6.10.3	<p>The percentage retention is 10% of the work completed (excluding CPA and VAT).</p>

6.10.3	The limit of retention money is 5% of the tender sum (excluding CPA and VAT)
6.10.3	A Retention Money Guarantee is not permitted.
6.10.4	The first payment certificate will only be processed after the completion of section 1400 in the Bill of Quantities, to the satisfaction of the Employer and/or the Engineer.
6.10.4	The Minimum amount of interim payment certificates is R2 000 000
7.8.1	The Defects Liability Period is twelve (12) calendar months after final completion date.
8.6	The amount to be included in the sum insured to cover the value of:
8.6.1	a) Materials supplied by the employer for incorporation into the works: nil .
8.6.1	b) Professional fees: R12 000 000-00.
8.6.1.3	The limit of the liability insurance required is R10 000 000,00 .
8.6.1.5	The following additional and varied insurances are required: Not applicable.
10.4/10.5/10.6	Disputes are to be referred to Amicable Settlement .
10.7	Disputes are to be referred for final settlement to arbitration .
T2.1 M C3.3.1.1	The additional Conditions of Contract are: Penalty for failure to comply with empowerment and employment creation requirements: Minimum Empowerment of Subcontractors and Females (MESF): MESF Penalty = Tender sum (excluding CPA & VAT) x (required MESF% - actual MESF %) Minimum Employment Creation (MEC): MEC Penalty = Tender sum (excluding CPA & VAT) x (required MEC % - actual MEC %) Geographical area for labour recruitment: (Tshwane)

Section 2: Data provided by the Contractor

Clause	
1.1.8	The contractor is
1.2.1	The contractor's address for receipt of communication is: Contact Person:..... Telephone:Facsimile: e-mail:.....

Clause	
	Address:.....
6.5.1	The percentage allowances to cover all charges for dayworks that cannot be paid for by using Section 1800 "Dayworks" in the Bill of Quantities%.
6.8.3	The rates for special materials , exclusive of Value Added Tax is to be completed in Schedule T2.3 C.
5.5.1	The Works shall be completed within months as proposed by the contractor

C1.4.3 Variations to the General Conditions of Contract

The following amendments of the General Conditions of Contract 2015 apply to this contract. The headings in these Special Conditions of Contract shall not be deemed to be part thereof nor be taken into consideration in the interpretation or construction thereof or of the Contract.

1.1 DEFINITIONS

1.1.1.2 "Bill of Quantities" and "Schedule of Quantities" shall have the same meaning.

1.1.1.15 "Employer" means the Gauteng Department of Roads and Transport represented by the Head of the Department and/or such other person or persons duly authorised by the Employer in writing.

1.1.1.16 "Employer's Agent" means CivEc Civil Engineering Consultants as represented by a Director, Manager or other person duly authorised thereto by CivEc Civil Engineering Consultants.

3. EMPLOYER'S AGENT

3.2.2 Employer's Agent to consult with Contractor and Employer

Replace the word "Employer's Agent" in the last sentence with the word "Employer".

3.3.6 Add the following to Sub clause 3.3.6:

"The time limit for referring the matter to the Employer's Agent by the Contractor shall be fourteen (14) days after the decision in question was given by the Engineer's Representative."

Add the following:

"3.3.7 Authority of the Employer

Notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should he deem it necessary, to amend any certificate, direction, decision or valuation of the Employer's Agent and to issue a new one, and such certificate, direction, decision or valuation shall for the purpose of the Contract be deemed to be issued by the Employer's Agent, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Employer's Agent and which has subsequently been rescinded."

4. CONTRACTORS' GENERAL OBLIGATIONS

4.1 EXTENT OF OBLIGATIONS AND LIABILITY

Add the following sub clause:

4.1.1.1 The Contractor shall, save in so far as it is legally or physically impossible,

- (b) Provide all superintendence, labour, materials, Constructional Plant, Temporary Works, including the design thereof, all requisite transport and all other things, whether of a temporary or permanent nature, required in and for such design, execution and completion of the Works and for the remedying of any defects, so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.
- (c) After award of the Contract, the Contractor shall be obligated to ensure that at least the Constructional Plant stated on the prescribed form in the Tender Documents, or Constructional Plant equivalent thereto, are on the site when required.”

“4.1.3 Contractor deemed to have inspected the Site

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as practicable) as to

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions.
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works,
- (d) the means of access to the Site and the Accommodation he may require and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his tender.

No subsequent claims by the Contractor arising from his lack of knowledge of perceptible conditions on the site or its surroundings or of information available in connection therewith shall be entertained.”

4.3 LEGAL PROVISION

Add the following on 4.3.1

4.3.1 The Contractor shall, in fulfilling the Contract, comply with all applicable laws, *with regard to Health, Safety, Wages and Condition of Work*, regulations, statutory provisions and agreements, and shall, at the request to the Employer’s Agent, provide proof that he has complied therewith

5.2 COMMENCEMENT OF THE WORKS

Add the following:

5.2.2 Payment of Obligations (13.01 (c))

Paragraph 8 the second sentence of 1303 (iii) (3) of the Standard Specifications for Road and Bridge Works for State Road Authorities page 1300-2 change the sentence starting "The tendered rate will be paid ..." to

"The tendered rate will be paid monthly, pro-rata for parts of a month from the commencement date until the end of the period for completion of the works, plus"

8. RISKS AND RELATED MATTERS

8.2 Care of works

Add the following:

8.2.2.4 The Contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Employer's Agent. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered land surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the Contract without the consent of the Employer's Agent shall be borne by the Contractor."

9. TERMINATION OF CONTRACT

9.3 Termination by Contractor

Delete the wording of sub clause 9.3.1.2 and replace this clause with the following:

9.3.1.2 "Failing to pay the contractor the amount due in terms of any payment certificate issued by the Employer's Agent, provided that such payment certificate is acceptable to the Employer and further more subject to the provision of sub-clause 3.2.3, within the time of payment provided in the contract, or."

10. CLAIMS AND DISPUTES

Add the following

10.12 Joint ventures

"If the Contractor is in a joint venture of two or more parties or persons, the parties or persons shall be jointly and severally bound to the Employer for fulfilment of the Contractor's obligations and terms of this Contract. The formation and/or conditions of agreement of the joint venture shall not be altered without the consent of the Employers. Should such a change be acceptable to the Employer then two notarially certified copies of the revised Joint Venture Agreement shall be submitted to the Engineer within fourteen (14) days of signature thereof by the parties to the Joint Venture."



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PART C2: PRICING DATA

C2.1	PRICING INSTRUCTIONS	C2.2
C2.2	BILL OF QUANTITIES	C2.4



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THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

C2.1 PRICING INSTRUCTIONS

1. Measurement and payment shall be in accordance with the relevant provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition), subject to the amendments and additions in the Scope of Works:

2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000 kg)
m ²	=	square metre	No.	=	number
m ² -pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m ³	=	cubic metre	MN.m	=	meganewton-metre
m ³ -km	=	cubic metre-kilometre	P C sum	=	Prime Cost sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	megapascal	kW	=	kilowatt
LJ	=	refer to sub-clause 12 of Clause C2.1	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 COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).

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. The prices and rates to be inserted in the Bill of Quantities are to be fully inclusive prices for the work described under the various items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
6. A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. 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.
7. Reasonable compensation will be received where no pay item appears in respect of work required in terms of the Contract which is not covered in any other pay item.
8. 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.
9. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition). Item numbers prefixed by the letter B refer to payment items described under part B of the Project Specifications, those with C to payment items described under part C, and so on for further parts of the project specifications.
10. The quantities set out in these 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 this Bill of Quantities.
11. The Contractor shall bear all the costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required for the purposes of the Works.



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C2.2 BILL OF QUANTITIES

SCHEDULE A: ROADWORKS

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1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	C2.6
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL.....	C2.7
1500	ACCOMMODATION OF TRAFFIC.....	C2.9
1700	CLEARING AND GRUBBING	C2.12
1800	DAYWORK AND HIRE OF CONSTRUCTION EQUIPMENT	C2.13
2100	DRAINS	C2.14
2200	PREFABRICATED CULVERTS	C2.15
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS.....	C2.16
3300	MASS EARTHWORKS.....	C2.17
3400	PAVEMENT LAYERS OF GRAVEL MATERIALS	C2.18
3500	STABILIZATION	C2.19
3600	CRUSHED STONE BASE	C2.20
3800	BREAKING UP EXISTING PAVEMENT LAYERS	C2.21
3900	PATCHING AND REPAIRING.....	C2.22
4100	PRIME COAT	C2.23
4200	ASPHALT BASE AND SURFACING.....	C2.24
5100	PITCHING, STONEMASONRY AND PROTECTION AGAINST EROSION	C2.25
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5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	C2.31
8100	TESTING MATERIALS AND WORKMANSHIP	C2.32

SCHEDULE B: MISCELLANEOUS

PART C	EMPLOYMENT OF LOCAL LABOUR AS EPWP BENEFICIARIES.....	C2.33
PART E	OCCUPATIONAL HEALTH AND SAFETY	C2.34
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SUMMARY OF SCHEDULES OF QUANTITIES

SCHEDULE A: ROADWORKS		
1200	GENERAL REQUIREMENTS AND PROVISIONS	R
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	R
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL	R
1500	ACCOMMODATION OF TRAFFIC	R
1700	CLEARING AND GRUBBING	R
1800	DAYWORK AND HIRE OF CONSTRUCTION EQUIPMENT	R
2100	DRAINS	R
2200	PREFABRICATED CULVERTS	R
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	R
3300	MASS EARTHWORKS	R
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	R
3500	STABILIZATION	R
3600	CRUSHED STONE BASE	R
3800	BREAKING UP EXISTING PAVEMENT LAYERS	R
3900	PATCHING AND REPAIRING EDGE BREAKS	R
4100	PRIME COAT	R
4200	ASPHALT BASE AND SURFACING	R
5100	PITCHING, STONEMASONRY AND PROTECTION AGAINST EROSION	R
5400	GUARDRAILS	R
5500	FENCING	R
5600	ROAD SIGNS	R
5700	ROAD MARKINGS	R
5800	LANDSCAPING AND PLANTING PLANTS	R
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	R
8100	TESTING MATERIALS AND WORKMANSHIP	R
12200	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE	R
12300	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS	R
TOTAL SCHEDULE A		R

SCHEDULE B: MISCELLANEOUS		
PART C	EMPLOYMENT OF LOCAL LABOUR AS EPWP BENEFICIARIES	R
PART E	OCCUPATION HEALTH AND SAFETY	R
PART F	HIV/AIDS	R
TOTAL SCHEDULE B		R

CALCULATION OF TENDER SUM

TOTAL SCHEDULE A	R
TOTAL SCHEDULE B	R
SUB-TOTAL C	R
14% VAT	R
TOTAL TENDER SUM	R



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PART C3: SCOPE OF WORK

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C3.3	PROCUREMENT, LOCAL LABOUR AND TRAINING	C3.10
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C3.1. DESCRIPTION OF WORKS

Note that dimensions and quantities stated in this description are approximate and for demonstration of order size purposes only.

C3.1.1. Employer's Objectives

The main objective of the employer is to rehabilitate Road P122/1 by removing the existing surfacing, base and subbase. The in-situ subgrade will be ripped and re-compacted used as roadbed/selected layer. The lower subbase will consist mainly of material from the existing road base and will be stabilized with cements. The upper subbase will be of imported material from commercial sources stabilized with cement. This is to be followed by the construction of a new 150mm crushed stone base and an asphalt surfacing. The drainage and all other appurtenant items along the road shall be repaired or replaced as specified.

The road is a single carriageway road and some climbing lanes will be constructed. The existing cross section will be widened by wider traffic lanes and surfaced shoulders.

Objectives during construction are to provide black economic enterprise contractors with a substantial portion of the work, provide work and training to local and other labourers and to execute the work with a high degree of safety.

C3.1.2. General Description of the Project Route

The project is located in the Tshwane area. Road P 122/1 (R57) provides a major route from P36-1(R10) (Solomon Mahlangu Drive) to Olifantsfontein.

The project entails the rehabilitation of the single carriageway road between Km 8.4 and the end at Km 17.8.

C3.1.3 Extent of Works

The main work items to be undertaken in terms of the contract involve the following:

From P36-1(R10) (Solomon Mahlangu Drive) (Km17.8) to Alandale/Ebenhaezer Intersection (Km16.6):

- Patch and asphalt overlay

Alandale/Ebenhaezer Intersection (Km16.6) to start of contract (Km 8.4)

- 40 mm asphalt surfacing
- Construct crushed stone base to 150mm as shown on the drawings
- Import upper subbase to 150mm as shown on the drawings and stabilize with cement using imported material from commercial sources.
- Construct lower subbase to 150mm as shown on the drawings and stabilize with cement using material from stockpile (from existing road base)
- Rip and re-compact existing G6 subgrade to 150mm selected layer. Additional material will be imported from commercial sources.
- Insitu roadbed to be ripped and re-compacted to 150 mm.
- Widen road to 13.4 m surfaced width
- Add climbing lanes
- Improve intersections
- Repair/replace and construct culverts, inlet and outlet structures

General:

- Remove/replace services.
- Investigate/repair sinkhole.
- Repair all appurtenant items along the road.
- Re-instate road markings.
- Construct side drains and edge beams on the road.
- Reinststate road signs, replacing damaged signs.
- Replace, realign or repair guardrails.
- Clean road reserve and cut the grass.
- Clean out and reinststate and repair all drainage structures and side drains.

C3.1.4 Temporary Works

A temporary shoulder will be constructed as widening to accommodate two-direction traffic on one side of the carriageway while the other half is being constructed. The temporary shoulder will be removed and the material used in the permanent structure or spoiled.

C3.1.5 General Information**C3.1.5.1 Accommodation of Traffic**

The traffic volumes along this route are very high and can be summarised as follows:

- The Annual Average Daily Truck Traffic (ADTT) varied between 190 to 630.
- The Annual Average Daily Traffic (ADT) varied between 6 500 and 13 700.

Two-way traffic will be maintained at all times. Stop/go traffic accommodation will only be allowed during off-peak hours and only for the construction of the temporary shoulder widening.

C3.1.5.2 Services

The main services that will be affected are existing street lights which are to be relocated. However, the contractor shall do a reconnaissance of the route for other possible services that may be affected.

C3.1.5.3 Construction Materials

Gravel materials and crushed stone required for construction work are not available on the site and shall be obtained from commercial sources. Where possible, milled material and material excavated from the road prism may be used in fill and lower pavement layers. The contractor's programme of work shall allow for the maximization of this. Concrete, making-up material and surfacing materials (asphalt) shall be obtained from commercial sources.

C3.1.5.4 Drawings

All drawings necessary to complete the works are bound in Volume 4: Contract Drawings. The drawings indicating the extent of the works along the road are for tendering purpose only. The final extent of the work will be as instructed by the engineer.

Any information in the possession of the contractor which is required by the resident engineer to complete his as-built drawings shall be supplied to the resident engineer before a certificate of completion will be issued.

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

The levels given on the structural drawings are subject to confirmation on site, and the contractor shall submit all levels to the engineer for confirmation before commencing any structural work. The contractor shall check all clearances given on the drawings and shall inform the engineer of any discrepancies.

C3.1.5.5 Power Supply and other Services

The contractor shall make his own arrangements regarding 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.

C3.1.5.6 Water for Construction Purposes

The contractor shall make his own arrangements regarding a suitable supply of water for the project and he 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.

C3.1.5.7 Construction in Confined Areas

It may be necessary for the Contractor to work within confined areas. No additional payment will be made for work done in restricted areas, except in the case of structures as described in Subclause 6108(d) of the Standard Specifications. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the Contractor's constructional plant.

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

C3.1.5.8 Contractor's Camp Site

The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel. The choice of all sites for the establishment of camps is subject to the approval of the engineer. Camp sites within the road reserve will not be permitted.

The establishment of all labour, plant and materials on site is the responsibility of the Contractor and all arrangements in this respect are the Contractors' responsibility; however:

- Provision has been made in the Schedule of Quantities for the Contractor to tender for his independent establishment on site (Section 1300);
- Base camp(s) established by the Contractor for his use must be approved by the Engineer before the Contract begins and this approval must be obtained in writing but must also meet the approval of the local authorities, headmen or residents associations, as well as the Environmental Management Programme with regard to bulk mixing plants, bitumen storage areas and plant maintenance areas.

The Contractor shall provide and maintain a continuous means of on-site communication between his site supervision staff (i.e. the people responsible for the day to day running of the Contract) and the staff of the Engineer's Representative. The Contractor must provide the Engineer with at least two cell phones which will be paid for under Item B14.03. The provision and use of cellular phones for the Contractor's personnel will be for his own cost.

C3.1.5.9 Security

The contractor shall be responsible for the security of his personnel and constructional plant on and around the site of the works and for the security of his camp, and no claims in this regard shall be considered by the employer. The Contractor shall also be responsible for the security of the areas around the Engineer's offices.

C3.1.5.10 Programme of the Work

The contractor shall take note of various factors contained in these specifications which will have a significant influence on the compilation of the programme of work. Detailed directives for compiling the programme of work are given in clause B1204 of section 1200 of the project specifications.

It shall be noted that the specified contract period is eighteen (18) months.

C3.1.5.11 Environmental Requirements

The Contractor shall be responsible for implementing and managing an Environmental Management Plan (also referred to as the "Environmental Management Programme") in terms of C3.5.2.

The Contractor's authorised agent shall report to the Engineer regarding compliance with the conditions as stipulated in the Environmental Management Plan.

The Contractor shall take the utmost care to minimise the impact of his establishment and other construction activities on the environment and shall adhere to the requirements as set out in C3.5.2. The Contractor shall prepare a detailed Method Statement to the Engineer detailing his construction activities and what measures will be implemented to prevent the pollution of streams, rivers and countryside through the spilling of fuels, bituminous binders, sewage from the temporary toilets and other deleterious materials. Where in the opinion of the Engineer, the Contractor has not adhered to these requirements; the Contractor shall rectify the damage at his own cost and to the satisfaction of the Engineer.

(Refer C3.5.2: Environmental Management Plan).

C3.1.5.12 Minimum requirements for sub-contractors, females, local labour and training

Refer to Clause C3.3 relating to procurement and training.

C3.1.5.13 Labour Enhanced Construction

(Refer C3.3.3: Labour Enhanced Construction).

C3.1.5.14 Training

(Refer C3.3.5: Training).

C3.1.5.15 Occupational Health and Safety (OHS)

(Refer C3.5.1: Occupational Health and Safety Act 1993: Health and Safety Specification.

(a) General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety (OHS) Act (Act 85 and Amendment Act 181) of 1993, and the Construction Regulations 2014 issued on 07 February 2014 by the Department of Labour. Contractor to complete Schedules T2.1 K: Occupational Health and Safety.

The additional specification regarding health and safety issues on this contract have been included in Part C3.5: Management.

For the purpose of this contract the Contractor is required to confirm his status as mandatory to the Employer (Client) and employer in his own right for the execution of the contract, and he shall enter into an agreement in respect of the Occupational Health and Safety Act in the schedule as included in Part T2.4: Other Schedules and Documents that will be Incorporated in the Contract (Schedule T2.4 B).

(b) Health and Safety Specifications and Plans to be submitted at tender stage

(i) Employer's Health and Safety Specification

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

(ii) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender sufficient proof that he has a Health and Safety Plan in place. The Contractor will, however, have to submit his Health and Safety Plan on request by the Employer during the tender evaluation stage.

In terms of the OHS Act the tender will be disqualified if the tenderer has no Health and Safety Plan.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be

suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

The Contractor shall not be entitled to claim for extension of time or standing time and the related costs for any delays due to delayed commencement or suspension of the work arising from the lack of approval of an approved Health and Safety Plan.

C3.1.5.14 Temporary latrines

The Contractor shall provide sufficient portable chemical latrine units for the use of his employees. Furthermore the Contractor shall also provide a portable chemical latrine unit at each temporary traffic control facility. He shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the Engineer and the Employer. Latrines shall be positioned within walking distance from wherever employees or labourers are employed on the Works.

Where required, latrines shall be provided at the rate of one for ten persons and where applicable, the Contractor shall make his own arrangements and pay all charges for the removal of sewage.

No separate payment shall be made for this requirement and the costs thereof shall be deemed to be included in the rates tendered for the Contractor's time-related obligations.



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C3.2. ENGINEERING

C3.2.1 Design

- The employer is responsible for the design of the permanent Works as reflected in these Contract Documents unless otherwise stated.
- The contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works, excluding the temporary widening of the shoulder as set out in the contract.
- The contractor shall supply all details necessary to assist the engineer in the compilation of the as-built drawings.

C3.2.2 Employer's Design

C3.2.2.1 Detail description of Works

- **Pavement Design:**
The following pavement design is appropriate to this project:

Pavement Design for Road P175/1

Layers	Description	Thickness (mm)
Surfacing	Medium asphalt	40
Base	G 1 aggregate.	150
Upper Subbase Layer	C3 materials	150
Lower Subbase Layer	C4 materials	150
Selected Layer	In situ or G6 quality materials.	150
Roadbed	In situ materials where instructed.	150

- **Guardrails:** Guardrails shall be re-aligned, straightened and where damaged, replaced. Reflectors, gangnails and posts shall be replaced if missing or damaged.
- **Road Signs and Markings:** Road markings shall be re-instated. Road signs shall be repaired or replaced as required.

- **Drainage:** All drainage and drainage structures are to be cleared, cleaned, repaired and reinstated. Where elements of drainage structures are missing, these shall be constructed.
- **Bridge rehabilitation:** reinstatement of ballustrades and clearing of silt in all bridges
- **Edge beams.** Edge beams are to be constructed along some sections of the road.

C3.2.3 Drawings

The drawings for the design of the permanent Works are bound in Volume 4 or as supplied during the contact. Contractor and engineer to maintain master lists indicating the supply and revision of such documents. The contractor will be supplied with one set of A0 plans and a CD containing all the plans. He can have copies made as required at his own cost.

C3.2.4 Design Procedures

All designs and modifications thereto shall be communicated in writing and the contractor and engineer shall maintain master lists to record and track all transactions.



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C3.3 PROCUREMENT, LOCAL LABOUR AND TRAINING

C3.3.1 Procurement

C3.3.1.1 Minimum Preferential Procurement Requirements

The following minimum preferential procurement requirements apply:

Required Minimum Empowerment of Subcontractors and Females

It is required that:

For All Bidders:

Work to the value of at least 40% of the Contract Price excluding VAT shall be undertaken by sub-contractors;

- (a) Of this 40% at least 30% should be as per the PPPFA Regulation 2017: Section 4(1)(c)(i) to (vii).

Particular note should be taken of the following requirements of the above Act:

If an organ of state decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond:

- (b) A tenderer subcontracting a minimum of 30% to-
- i) an EME or QSE which is at least 51% owned by black people;
 - ii) an EME or QSE which is at least 51% owned by black people who are youth;
 - iii) an EME or QSE which is at least 51% owned by black people who are women;
 - iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - v) an EME or QSE which is at least 51% owned by black people living in rural or underdeveloped areas or townships;
 - vi) a cooperative which is at least 51% owned by black people;
 - vii) an EME or QSE which is at least 51% owned by black people who are military veterans;
 - viii) an EME or QSE.
- (c) The remaining 10% must be local subcontractors at least

- i) 37.5% shall have a B-BBEE Status Level equal or higher than that of the Contractor, (Status Level 1 being the highest level)
- ii) 65% shall be Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's) that have an Average Weighted Equivalent B-BBEE Status Level between 1 and 4.
- iii) 30% shall be Female Owned

The implementation of the above criteria is compulsory in this project.

For Joint Venture contractors:

Where the Joint Venture (JV) partner has a BB-BEE rating between 1 and 4 and; the JV partner is responsible for at least 30% of the value of the works; work to the value of at least 30% of the Contract Price excluding VAT and contingencies be undertaken by sub-contractors:

- i) 37.5% shall have a B-BBEE Status Level equal or higher than that of the Contractor, (Status Level 1 being the highest level)
- ii) 65% shall be Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's) that have an Average Weighted Equivalent B-BBEE Status Level between 1 and 4.
- iii) 30% shall be Female Owned

All subcontractors must be registered with the CIDB, and be approved by the Employer.

Minimum Employment Creation Requirements

It is required that, of the Contract Value excluding VAT and contingencies, at least: 30% be spent on Worker's salaries and wages and of this 30%, at least one third must be Local Labour

The proportions of Workers must be at least:

For all workers

- i) 55% to be female Workers.
- ii) 55% to be Youths.
- iii) 2% to be disabled Workers.

For Local Labour

- i) 55% to be female Workers.
- ii) 55% to be Youths.
- iii) 2% to be disabled Workers

C3.3.1.2 Definitions

Percentages stated in clause C3.3.1.1(a)

Percentages of the Contract Value (Excluding VAT) are calculated from the agreed financial values of the work performed by the various types of sub-contractors excluding VAT, based on the appropriate quantities in the contractor's approved statements of payment (in terms of clause 6.10.1 of the General Conditions of Contract), including the applicable proportional values of general costs derived from sections 1200, 1300, 1400 and 1500 of the Bill of Quantities. In the event that agreement cannot be reached, the engineer's ruling shall prevail.

B-BBEE Status Level

The certified status level in-terms of the Preferential Procurement Regulations of 2017.

Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's)

The QSE and EME's certified status in terms of the B-BBEE Code of Good Practice and the Preferential Procurement Policy Framework Act, 05 of 2000 and Regulations of 2011.

EME's are deemed to have the status of a level 4 contributor and in instances where black ownership is greater than 50%, the status of a level 3 contributor.

Average weighted equivalent B-BBEE Status level

The Average Weighted B-BBEE Status level =

$$\left(\frac{\sum (s \times v)}{\sum (v)} \right)$$

Σ = The sum of the values in parenthesis ()

S = status level of each individual, QSE or EME sub-contractor

V = Value of the work performed, including the proportion of General costs incurred, by each individual QSE or EME Sub-contractor.

Female Owned

Female owned enterprises are enterprises that can provide proof of more than 50% female ownership, in the form of written certification by a registered professional auditor.

Worker

As defined in Part C of the project specifications.

Salaries and Wages

The total gross remuneration of the workforce, (as defined in Part C of the Project Specification) as reported regularly to the engineer in an acceptable format.

The gross remuneration shall exclude the proportions of salaries and wages of labourers when such workers are not performing work directly related to the contract.

All labour shall be paid under gazetted rates.

The gross remuneration shall only include the remuneration or proportional remuneration of :

- Key Personnel*
- The Workforce*
- Local Labour*
- Sub-contractors
- The Community Liaison Officer*
- Other labour specifically approved by the engineer.

* As defined in Part C of the Project Specifications

The engineer may require certification by a registered professional auditor of the values reported.

Local Labour

“Local labour” are defined in Part C of the Project Specifications.

Youths

Youths are Local Labour between the ages of 15 and 35.

C3.3.1.3 QSE and EME Subcontractor work

The contractor is expected to demonstrate to what extent he can meet the minimum requirements (See C3.3.1.5 hereafter).

In order to further assist the contractor to attain and exceed the minimum requirements stated in Clause C3.3.1.1 (a) above, the CLO and the employers social facilitator (as defined in Part C of the Project Specifications) will provide the contractor with a list of local QSEs and ESEs.

The contractor is under no obligation to appoint any QSE's or ESE's thus identified.

Examples of some of the construction activities included in the works which are considered suitable to be undertaken by QSE and EME sub-contractors include:

- Supply of construction materials,
- Provision of traffic control facilities,
- Management of traffic control facilities and traffic safety as part of the accommodation of traffic,
- Erection and maintenance of the contractor's camp site,
- Removal of trees,
- Construction of concrete paving, kerbs and channels,
- Manufacture of pre-cast concrete elements,
- Construction of concrete walkways,
- Finishing off cut and fill slopes,
- Construction of minor concrete drainage elements such as side drains, catchpits, manholes, etc.
- Construction of side drains,
- Installation of stormwater pipes,
- Patching,
- Relocation/protection of services,
- Installation of subsoil drains,
- Cartage of materials,
- Cleaning out of pipe culvert inlet and outlet structures,
- Erection of temporary and permanent road signs,
- Erection of guardrails,
- Finishing of the road and road reserve,
- Road markings,
- Construction of service roads.
- Stone pitching
- Landscaping

The contractor is encouraged to innovate and add additional activities.

C.3.3.1.4 Examples of Employment Creation

Key objectives of this contract are:

- That Local Labourers that are employed during the course of the contract (as specified in Part C of the Project Specification), be permanently employed (i.e. for at least 230 person days).
- That work on the project be performed in a way which will maximise employment through the utilisation of labour intensive instead of mechanical intensive construction methods.

The following activities included in the works are examples of work considered as suitable for labour enhanced construction:

- Site establishment
- Clearing and grubbing in areas without trees
- Accommodation of Traffic
- Mixing of concrete/soilcrete for minor concrete works
- Laying of concrete block paving, kerbs and channels
- Excavations for minor concrete drainage structures and kerbing
- Construction of variable depth side drains (normal side drains are part of bulk earthworks)
- Excavation and backfilling of pipes and culverts
- Finishing of the road and road reserve
- Construction of subsoil drains
- Excavations for road signs
- Patching
- Clearing the fence line and erection of fencing
- Brooming of slush on crushed stone bases
- Spreading of topsoil and application of fertilizers on areas for grassing
- Grass sodding.

The contractor is encouraged innovate and add additional activities.

Labour enhanced construction activities, shall be clearly identified by the contractor and approved by the engineer.

No variation in payment shall be made for labour enhanced work identified by the contractor.

C3.3.1.5 Demonstrating how the minimum Preferential Procurement requirements are to be achieved.

The contractor shall take cognisance of the minimum criteria and their contribution to the utilisation of employment creation. Within six (6) weeks after the commencement date he will be required to demonstrate how he proposes to achieve the minimum requirements in Clause C3.3.1 (a) and (b) above.

C3.3.1.6 Penalties for failure to comply with the minimum requirements of Clause 3.3

Failure or refusal on the part of the contractor to take the necessary steps to ensure that the required Minimum Empowerment of Subcontractors and Females (MESF) is achieved, shall be sufficient cause for the engineer to deduct penalties as follows:

MESF Penalty = Tender sum (excluding CPA & VAT) x (required MESF% -actual MESF %)

Failure, or refusal on the part of the contractor to take the necessary steps to ensure that the required percentages of Minimum Employment Creation (MEC) are met, shall be sufficient cause for the Engineer to deduct penalties as follows:

MEC Penalty = Tender sum (excluding CPA & VAT) x (required MEC % - actual MEC %)

The penalty amounts shall be agreed between the contractor and the engineer. In the event that agreement of the penalties' amounts cannot be reached, the engineer's ruling shall prevail.

The contractor agrees that the penalty amounts may be deducted from the contractor's payment certificates.

No additional payment (negative discounts) will be applicable if the contractor exceeds the minimum requirements.

C3.3.2 Compulsory training

Compulsory training shall be implemented for local Labour, QSE's and EME's by the contractor as specified in Part D of the Project Specifications.

Provisional sums are included in Section 1200 of the Bill of Quantities for accredited training providers. This sum will be spent at the sole discretion of the engineer in consultation with the employer.

The contractor will, inter alia be responsible for:

- Arranging Construction Education and Training Authority (CETA) approved courses (Payment being by way of the Provisional Sum allowances in the Bill of Quantities).
- Payment of trainees wages during training (the contractor will be reimbursed for these wages by way of the Provisional Sum allowances in the Bill of Quantities)
- Provision of training facilities and, if required, transport to the training, venue; (Payment to the contractor being included in the contractor's General obligations as specified in section 1300 of the Project Specifications).

The attendance and completion of each course by selected individuals must be CETA certified and copies of such certificates must be submitted to the engineer.

No additional payment shall be made for informal training.



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C3.4 CONSTRUCTION

C3.4.1 STANDARD SPECIFICATIONS

The following specifications shall apply for the construction of the Works.

- (a) The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).

The contractor may purchase copies from the South African Institution of Civil Engineers.

SAICE
 SAICE House / Postnet Suite 81 Tel : (011) 805-5947
 Block 19 / Private Bag X65 Fax : (011) 805-5971
 Thornhill Office Park / Halfwayhouse Contact Person : Angeline Aylward
 Becker Street / 1685
 Vorna Valley X21
 MIDRAND

- (b) SANS or BS Specifications and Codes of Practice

Wherever any reference is made to the South African National Standards (SANS) and the British Standards Specification (BSS) in either these Bill of Quantities or the Specification of Materials and Methods to be Used (OOG-001E), this reference shall be deemed to read "SANS or equivalent standard" and BS or equivalent standard" respectively.

- (c) Various other specifications specified in the COLTO Standard Specifications or the Project Specifications.

C3.4.2 PROJECT SPECIFICATIONS: GENERAL

These specifications shall address project specific matters such as:

- Restrictions on construction
 - Site usage
 - Permits and wayleaves
 - Confined areas
- Services
- Materials
- Traffic Volumes
- Drawings

- Site Establishment
 - Contractor and engineers camp
 - Security, etc
 - Water for construction
 - Power supply
 - Telkom Service
 - Other Services
 - Survey control
 - Notices, signs and advertisements

C3.4.3 PROJECT SPECIFICATIONS RELATING TO STANDARD SPECIFICATIONS

C3.4.3.1 General Conditions of Contract Referred to in the Standard Specifications

The references to the General Conditions of Contract appearing in the COLTO Standard Specifications refer to the COLTO General Conditions of Contract which is superseded in this contract by the General Conditions of Contract for Construction Works 2015 (Third edition). The corresponding clause in the latter document pertaining to the reference in the COLTO Standard Specifications is listed in the table in Section 1100.

C3.4.3.2 Particular Project Specifications

The following specifications, in addition to the standard specification, apply:

Part B	Matters relating to the COLTO Standard Specification
Part C	Employment of Local Labour as EPWP beneficiaries
Part D	Provision of Compulsory Training
Part E	Health and Safety Specification
Part F	HIV AIDS Specification

C3.4.4 SPECIFIED MANAGEMENT REQUIREMENTS

The requirements stated in the Management part of the contract shall be considered as further specified requirements of the contract.

PROJECT SPECIFICATIONS

PART B: MATTERS RELATING TO THE STANDARD SPECIFICATIONS	C3.18
PART C: EMPLOYMENT OF LOCAL LABOUR	C3.84
PART D: PROVISION OF COMPULSORY TRAINING	C3.91
PART E: HEALTH AND SAFETY SPECIFICATION	C3.96
PART F: HIV/AIDS SPECIFICATION	C3.102

PART B: MATTERS RELATING TO THE STANDARD SPECIFICATIONS**PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS**

The Standard Specifications for Road and Bridge Works for State Road Authorities 1998, prepared by the Committee of Land Transport Officials (COLTO), as amended, shall apply to this Contract. The amendments are those issued by COLTO and reproduced below, together with additional amendments as set out herein.

1 STANDARD AMENDMENTS TO THE STANDARD SPECIFICATIONS ISSUED BY COLTO

No amendments have been issued.

2 PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS

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

The number of each clause and each payment item in this part of the Project Specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the Standard Specifications. The number of a new clause or a new payment item which does not form part of a clause or a payment item in the Standard Specifications and which is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the Standard Specifications.

**PROJECT SPECIFICATION REFERRING TO THE STANDARD SPECIFICATIONS AND
ADDITIONAL SPECIFICATIONS**

SECTION 1100:	DEFINITIONS AND TERMS.....	C3.20
SECTION 1200:	GENERAL REQUIREMENTS AND PROVISIONS	C3.22
SECTION 1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS.....	C3.28
SECTION 1400:	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL	C3.29
SECTION 1500:	ACCOMMODATION OF TRAFFIC.....	C3.32
SECTION 1600:	OVERHAUL	C3.40
SECTION B1800:	DAYWORKS AND HIRE OF CONSTRUCTION EQUIPMENT.....	C3.43
SECTION 2300:	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS	C3.45
SECTION 3400:	PAVEMENT LAYERS OF GRAVEL MATERIAL.....	C3.47
SECTION 3500:	STABILISATION	C3.53
SECTION B3600:	CRUSHED-STONE BASE	C3.56
SECTION B3800:	BREAKING UP EXISTING PAVEMENT LAYERS	C3.58
SECTION B3900:	PATCHING AND REPAIRING EDGE BREAKS.....	C3.59
SECTION B4100:	PRIME COAT.....	C3.58
SECTION 4200:	ASPHALT BASE AND SURFACING	C3.63
SECTION B4600:	BITUMINOUS SINGLE SEAL WITH SLURRY (CAPE SEAL).....	C3.71
SECTION 5600:	ROAD SIGNS	C3.72
SECTION 5700:	ROAD MARKINGS.....	C3.77
SECTION 5900:	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	C3.79
SECTION 8100:	TESTING MATERIALS AND WORKMANSHIP	C3.80
SECTION B8200:	QUALITY CONTROL (SCHEME 1)	C3.83

SECTION 1100: DEFINITIONS AND TERMS**B1115 GENERAL CONDITIONS OF CONTRACT**

Replace Clause 1115 with the following:

The General Conditions applicable to this Contract are the General Conditions of Contract for Construction Works, 2015, Third Edition, (GCC 2015).

Accordingly, all reference in the Standard Specifications to any other General Conditions of Contract (GCC) has to be amended. The Standard Specifications have been scrutinised and clauses, which refer to another GCC, identified. These are tabulated below together with the relevant equivalent clause in the GCC 2015 Conditions of Contract. The context of the reference to the GCC is also noted.

Whereas every effort has been made to include all of the affected clauses in the table, there may be some omissions. In every case, however, the GCC 2015 Conditions of Contract for Construction, as amended by the Special Conditions of Contract in Section C1.2 of this Volume, shall apply and the contractor shall be responsible for interpretation of the equivalent clause.

CHANGES TO ALL REFERENCES BY THE COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND 2015 GENERAL CONDITIONS (GCC2015)

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC2015 General Conditions of Contract for Construction Works, 2015	
Clause No	Page No	Cl. No	Description or Reference	Cl. No	Description or Reference
1115	1100-2		Definition of applicable GCC and special conditions of contract		GCC2015 together with project documents
1204	1200-2	15	Construction programme	5.6.1	Construction programme
1204	1200-2		General reference to GCC		GCC 2015, as applicable
1206	1200-3	14	Setting out of works	5.4	
1209(a)	1200-4		General references to GCC		GCC 2015, as applicable
1209(e)	1200-5	52(2)	Valuation of material brought onto site	6.10.2	Valuation of material brought onto site
1210	1200-5	54	Certificate of practical completion	5.14.4	Certificate of practical completion
1212(1)	1200-7	49(2)	Cost of checking alternative designs		
1215	1200-9	45	Extension of time for completion due to abnormal rainfall.	5.12	Extension of time for completion
1217	1200-10	35	Care of the works	8.2	Care of the works
1303(ii)	1300-1		General reference to GCC		GCC 2015, as applicable
1303(iii)	1300-1	49	Price adjustment Item 13.01 (a)	6.11	Variations exceeding 15%
1303 (iii)	1300-2	49	Price adjustment Item 13.01 (b)	6.11	Variations exceeding 15%
1303 (iii)	1300-1	53	Variations exceeding 20%	6.11	Variations exceeding 15%
1303 (iii)	1300-2	53	Variations exceeding 20%	6.11	Variations exceeding 15%
1303	1300-2	12	Payment Item 13.01 (c)	1.5.2	Commencement Date

C3.21

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC2015 General Conditions of Contract for Construction Works, 2015	
Clause No	Page No	Cl. No	Description or Reference	Cl. No	Description or Reference
1303	1300-2	49	Payment of Item 13.01 (c) Time Related Obligations	6.11	Variations exceeding 15%
1403(c) (ii)	1400-4	40	Variation for rented accommodation	6.4	Valuations of Variations
1505	1500-3	40	Payment for damage caused by temporary drainage	6.4	Valuations of Variations
Item 15.08	1500-8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Item 15.09	1500/8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Item 15.11	1500-8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Note (2)	3100-4	40	Payment for prospecting for materials	6.4	Valuations of Variations
3204(b) (iii)	3200-2	40	Determining Compensation for varied methods and equipment	6.4	Valuations of Variations
3303(b)	3300-2	2	Engineer's decisions, with reference to materials classification	3	Engineer and Engineer's Representative
Item 44.06	4400-3		General reference to GCC, PC Sums	6.6	Provisional and Prime Cost Sums
Item 45.06	4500-3		General reference to GCC, PC Sums	6.6	Provisional and Prime Cost Sums
5803 (c)	5800-3	40	Variation, for landscaping	6.4	Valuations of Variations
5805 (d)	5800-4	40	Variation, for grassing	6.4	Valuations of Variations
Item 58.10	5800-10	48	Payment for Extra Work	6.6	Provisional and Prime Cost Sums
8103 (c)	8100-1	40	Testing materials	6.9	Materials, Workmanship and Construction Equipment
			Valuation of Variations	6.4	Valuations of Variations
Item 81.02	8100-26		General reference to GCC, Provisional Sums	6.6	Provisional and Prime Cost Sums
Item 81.03	8100-26	22	Removal of Test Equipment and Clearance of Site on Completion	5.15	Clearance of Site

SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS**B1204 PROGRAMME OF WORK****(a) General requirements**

Add the following as a continuation of the first paragraph:

“In drawing up the programme the contractor shall make allowance for the following:

- (i) All special non-working days defined in C1.4 Contract Data.
- (ii) The expected delays defined in B1215: Extension of time resulting from inclement weather.
- (iii) The construction sequences and accommodation of traffic.
- (iv) Lengthening and repair of drainage structures.
- (v) Traffic constraints through bridge structures where the carriageway narrows.
- (vi) Survey of the road centre line levels.
- (vii) The temporary widening of shoulders to accommodate traffic.
- (viii) The following restrictions:
 - Two-way traffic must be provided at all times during peak hours. Half width construction with stop/go arrangements will only be allowed outside peak hours. Peak hours are defined as the period between 05:30 and 09:00 in the morning and between 15:30 and 19:00 in the afternoon/evening. The road must be fully open to traffic during peak hours. These times may be adjusted by the Engineer depending on actual peak traffic periods observed on site.
 - Stop/go closures shall not exceed 1.0 km in length. Not more than 2 closures will be permitted, provided there is a 2 km interval between such closures (2 km distance measured between stop/go signs).
 - To ensure optimal use of materials obtained from the existing road and materials used in the temporary widenings, construction must be carried out in no less than three (3) distinct phases of approximately equal length. Construction of the next phase may not commence before the Engineer has been satisfied that material used in the temporary works on the previous phase can be fully utilized in the next phase.

Add the following subclause:

“(c) Programme revisions

The programme will be reviewed at the scheduled site meetings at which the contractor shall provide sufficient detail that will allow the comparison of completed work per activity against the original approved programme. The contractor shall indicate what resources and programme changes he intends to implement in order to remedy any activity that may have fallen behind. The engineer may request from the contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen (14) days of the request.”

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following after the title:

“The contractor shall implement a quality assurance system in accordance with ISO 9002 and appoint a quality manager who shall ensure that members of the contractor’s staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the contractor.

The quality manager shall be resident on site full time. No construction activities shall take place on site before the engineer approves the quality plan”.

Delete the second, third and fourth paragraphs and replace with the following:

“The contractor shall submit the quality assurance system he proposes using to the engineer, for his approval, within two weeks of the site handover. Once accepted by the engineer the contractor shall not deviate from it unless written notification of proposed changes have similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.”

B1206 THE SETTING-OUT OF WORK AND PROTECTION OF BEACONS

Delete the first portion of the first paragraph up to the words of “ ..., and he”. The paragraph shall start “The contractor shall comply with all legal....”

Delete “and of Clause 14 of the general conditions of contract” in the sixth paragraph

Add the following paragraphs:

“The contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the engineer. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered land surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the contract without the consent of the engineer shall be the contractor’s responsibility and included in the tender rates”.

“The contractor shall use appropriate methods for setting out the works to be constructed by labour-based methods. This may include the use of special templates and sight rails and other suitable implements, which will assist the labourers in constructing the works to the required lines, levels and standards. The cost of these implements and additional setting-out procedures shall be included in the rates for the works items and no separate payment will be made for them.”

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Add the following to this clause:

“Detail of the notice boards that are required in terms of clause 1207, are shown in Volume 4.”

B1208 MEASUREMENTS

(a) Measurement of Completed Work

Add the following:

‘(v) The actual authorised quantities of application or mix proportion of materials such as bituminous binders, aggregates, mineral fillers, paint, etc., shall be measured and paid for irrespective of allowed variations from nominal mix proportions or prescribed, portions. Any unauthorised increase in rates of application or mix proportions above those specified, shall however not be paid for.

The Engineer may also reject any work outright where the actual rate of application of the aforementioned is not within the specified limits and this work shall be rectified or reconstructed at the Contractor’s expense.’

B1209 PAYMENT**(e) Materials on the site**

Add the following:

"The engineer may at his sole discretion allow payments under "Materials on the site" in respect of any construction materials, if stored off-site, providing that:

- the site selected for this purpose is approved by the engineer;
- such land is physically separated from any production plant or operation;
- only materials for use under this contract are stockpiled on such land, and
- the contractor has provided proof of an agreement with the owner of such land that the owner has no objection to using the land for these purposes and has no claim whatsoever on any materials stockpiled on such land."

Add the following subclause:

"(g) Value Added Tax (VAT)

No value added tax shall be included in the contractor's tendered rates or amounts."

B1211 TRAFFIC OVER COMPLETED PAVEMENT LAYERS

Add the following:

"It is a requirement of the contract that at least one traffic lane per direction of the road shall be open to traffic at all times, and it will be necessary to traffic completed sections of work as soon as practicable. The contractor shall take due account of this in his programme of work and daily programming. Any repairs to damage arising from this action will be to the contractor's account."

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Add the following:

"Extension of time resulting from abnormal rainfall or other forms of inclement weather shall be calculated according to the requirements of Method ii (critical-path method). The value of "n" as specified in this clause shall be taken as three (3) working days per calendar month from November to March and two (2) working days per calendar month for the remainder of the year, of the specified time for completion of the contract. If no abnormal rainfall or other inclement weather periods occur during a specific calendar month (or months), the n-value of these days, as allowed for in the programme of works shall not be taken as accumulating over the contract period."

B1216 INFORMATION FURNISHED BY THE EMPLOYER

Add the following after the second paragraph:

"Drawings and quantities regarding the distribution and extent of work items were compiled and calculated to the best of the engineer's knowledge and available information at the time of the design and could be subject to variations at the construction stage. Such variations shall, however, not form grounds for a claim by the contractor in terms of subclause 6.3: Variations of the General Conditions of Contract."

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

Add the following:

"(h) Prior to the start of any excavation on any part of the works, the contractor shall submit to the engineer for approval a method statement for the execution of that part of the work. The contractor is responsible for the protection of the underlying pavement layers and the drying out and/or keeping dry of such excavations. The contractor's programme shall make provision for the speedy backfilling of the excavations and the drainage thereof if inundation cannot be prevented.

The contractor shall, at his own cost, be responsible for the repair of pavement layers which have been damaged due to his own works or his neglect to submit his planning to the engineer for approval or to adhere to approved precautionary measures."

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

"The total length of the road reserve will be handed over to the contractor at the start of the contract period."

Add the following new Sections:

B1230 TRAINING (PART D: PROVISION OF COMPULSORY TRAINING)

Add the following to D06: Measurement and Payment:

"D06.03 Training Programme

The contractor shall submit a training programme and training content to the engineer for approval as soon as possible after commencement of the project. The training shall include relevant content based on the three categories of:

- Entrepreneurial training
- Engineering training
- Generic training

The contractor shall also submit a proposed venue for approval by the engineer.

The contractor shall also provide for the required stationary, transport and compensation to the labourers for the duration of the training.

All aspects related to training, including the contractor's cost, shall be paid for under item B12.01 Contractor's Obligation in respect of Training."

Add the following clause:

"B1231 SECURITY

Security of contractor's plant and personnel

The tenderer shall note that, notwithstanding the insurances effected by the contractor, the contractor shall be responsible for the effecting of safety and security of plant and personnel on and around the site of the works, and that no claims in this regard will be entertained by the employer. "

Contractors are expected to use common sense and good judgment in assessing their security requirements. Under no circumstances will additional payment be made for items such as security fencing, e.g. razor coil wire, mobile radios, control of persons entering the site camp(s), day and night watchmen, armed guards on pay days, control on stockpiles of materials and fuel, or any other measures normally associated with the provision and maintenance of security on site.

Security arrangements will be deemed to be included in the amount tendered for in Items 13.01(a) and 13.01(c).

B1232 DRAWINGS

The drawings shall remain in the sole custody of the Engineer, but one electronic copy shall be furnished to the Contractor free of charge. The Contractor shall, at his own expense, produce therefrom all further prints required for the Construction of the Works. At the completion of the Contract, the Contractor shall return to the Engineer all prints provided and produced during the Contract period.

One full size set of prints of the drawings shall be kept by the Contractor on the Site and these shall at all reasonable times be available for inspection and use by the Engineer and his representative, or by any other persons so authorised by the Engineer in writing.

The drawings shall not be used by the Contractor for any purpose other than the execution of the works.

All information in the possession of the Contractor which is required by the Engineer's representative for the completion of "as-built" drawings shall be submitted to the Engineer's representative before a completion certificate is issued.

Only figured dimensions on the drawings shall be used, and drawings shall not be scaled. The Engineer shall supply and figured dimensions which have been omitted from the drawings.

Additional drawings may be issued as necessary to the Contractor by the Engineer from time to time during the progress of the works. The Contractor shall timeously notify the Engineer of the priority in which drawings and details are required.

B1233 MEASUREMENT AND PAYMENT

Item	Unit
B12.01 Contractor's obligations in respect of Training	Lump Sum

The Lump Sum shall cover the cost of all training provided by the contractor's subcontractor for training. This sum shall also include for a venue, transport, stationary, wages and all other incidentals required to provide the training as approved by the engineer.

Add the following pay items:

"Item	Unit
B12.02 Other Payments	
(a) Miscellaneous payments	
(i) Topographical surveys	Provisional sum
(b) Handling cost in respect of subitem B12.02 (a)	Percentage (%)
(c) Irene X196 Intersection upgrade	
(d) Doornvallei X6 Intersection upgrade	
(e) Irene X180 Intersection upgrade	

The provisional sum allowed for miscellaneous payments which shall be expended in accordance with Clause 6.6 of the General Conditions of Contract.

Items B1202(c), (d) and (e) are intended for the possible upgrade of the three intersections. The provisional sums provided may be used in part or in full or may not be used at all. Should the construction of these intersections proceed, drawings and a separate bill of quantities will

be provided, but will not be priced separately. The same rates will be used for these intersections as those tendered for the quantities currently scheduled in the Bill of Quantities in Section C2.2.”

“Item **Unit**

B12.03 Excavation for the exposing of, or searching of services:

Excavation of material in the following depth ranges below ground level

(a) 0m up to 2m

- | | | |
|------|---------------|-------------------------------|
| (i) | Soft material | cubic metre (m ³) |
| (ii) | Hard material | cubic metre (m ³) |

Measurement and payment shall be in accordance with Item 22.01. Classification of excavation material shall be in terms of Clause 2105 of the specification.

Backfilling will be measured under Item 22.02.

Item **Unit**

B12.04 Level survey of road centre line kilometre (km)

The unit of measure shall be the kilometre of road centre line which is surveyed and for which the levels on the left and right hand side have been determined in accordance with Section B1234. The tendered rate shall include for all calculations and incidentals necessary to provide the engineer with the existing centre line levels at 20m intervals as well as the levels along the road edge.

Add the following clause:

“B1234 ROAD LEVELS

Where a new layer is to be constructed on top of the existing road, whether the existing base layer is to be recycled or not, the contractor shall, within 4 weeks, survey the existing centre line levels of the road or carriageway at 20m intervals. He shall then determine the road edge levels using the existing camber, existing cross-fall or super elevation, whichever is applicable. The centre line and road edge levels shall be forwarded to the engineer for assessment and approval prior to any further construction of the road or carriageway. The engineer will then supply the contractor with a new set of levels, which take into account the additional pavement layers, to which the road shall be constructed.

Payment for the survey shall be made under Section 1200 and shall include the determination of the levels on the edge of the road and the submission thereof to the engineer.”

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

B1302 GENERAL REQUIREMENTS

(a) Camps, construction plant and testing facilities

Add the following to this clause:

"The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel. No personnel will be allowed to reside on the site. Only night-watchmen may be on the site after hours.

The contractor shall be responsible for the security of his personnel, construction plant on and around the site of the works, and of his camp. The cost of this will be deemed to be included in item 13.01.

The contractor's offices, laboratory and stores shall, unless otherwise agreed, be erected in close proximity to the engineer's offices and laboratory. The entire area shall be fenced with a minimum of 1,8m height razor taped mesh. The contractor's offices, laboratory and stores and engineer's offices and laboratory shall be provided with sufficient perimeter lighting.

The contractor shall provide security guards from a reputable security company for protection of the engineer's offices and laboratory. The security guards must be provided with a two way radio and be in constant contact with the control room of the security company and an armed response unit. The security guards must be armed and accompanied by trained guard dogs. Payment for the above shall be included in item 13.01.

The contractor shall provide at each work site at least one portable chemical latrine unit per 10 workers for use by construction workers employed on the project. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the satisfaction of the engineer. The contractor shall move them to the required positions, and finally remove them, on completion of the works, all to the satisfaction of the Health Department of the relevant authority. Toilets must be screened from public view and their use shall be enforced. No separate payment shall be made for this requirement and payment shall be deemed to be included in the rates tendered for the contractor's time-related obligations."

B1303 PAYMENT

Add the following subitem:

"Item	Unit
(d) Time related obligations for approved extension of time due to inclement weather.	Days (d)

The tendered rate shall be as specified for subitem 13.01 (c)".

In subsection (iii)(3) paragraph 8 change "from the date on which ...plus" to "the commencement date until the end of the period for completion of the works, plus..."

Add the following to pay item B13.01:

"The combined total tendered for subitems B13.01 (a), (b) and (c) shall not exceed 15% of the tendered sum, excluding VAT. The rate tendered for subitem 13.01(d) shall not differ by more than 5% from the rate tendered for in subitem B13.01(c)/22."

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

B1402 OFFICES AND LABORATORIES

(a) General

Add the following:

"It is a requirement of the contract that the offices for the engineer's supervisory staff shall be supplied with approved burglar proofing, the cost of which shall be included in the relevant tendered rates.

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

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

(b) Offices

Replace sub-subclause (xii) with the following:

"A complete telephone service together with fax equipment shall be provided. The cost of telephone calls and fax transmissions are included in the prime cost sum for the provision of the telephone service".

Add the following:

(xvii) Steel plan cabinets which are able to accommodate A0 plans hung from the narrow side.

(xviii) Microwave oven with a minimum capacity of 30 litres.

(xxii) Computers and printers

The computers shall have, as a minimum, the latest Windows operating system installed together with the latest Microsoft Office suite including Microsoft projects for office use. The laptops should be installed with the latest AutoCAD for capturing of as built data and any additional design and drawings to be issued on site.

Minimum Specifications: MB AIR 13.3 1.6GHZ 4GB 256GB MJVG2SO A. 33.782 cm (13.3 "), Intel Core i7 1.6GHz, 256GB flash, 4GB LPDDR3, Intel HD Graphics 6000, 802.11ac, Bluetooth, 720p FaceTime HD camera, OS X Yosemite, or similar approved. Minimum 1TB HDD storage.

The Contractor should make a provision for an A0 drawing plotter with the following specifications:

HP DesignJet T2530 Multifunction Printer Series L2Y25A / L2Y26A Quick Specs, or similar approved.

The printers shall be a high speed colour printer capable of printing A3 size prints. It shall also have the ability to scan and copy.'

(c) Laboratories

In the second paragraph, second line substitute "drawings" with "figures included in the project document"

Delete (xvi) and replace with:

"Uninterrupted power supply (UPS) units shall be supplied for all electronic equipment."

(g) Ablution units

Add the following:

"Two separate ablution units are required on site. Each unit shall contain at least a wash-hand basin, flush toilet, urinal, shower unit and the necessary accessories.

Both ablution units shall be provided with hot and cold water.

The towels shall be replaced with clean towels every second day and soap and other toiletries supplied as necessary.

One of the units shall contain a lockable clothing cupboard for at least eight employees. The other unit shall contain a lockable clothing cupboard for at least three employees.

The ablution units shall each have an interior floor area of at least 10m² and a 1,5m wide veranda on one side with a 100mm concrete floor.

The tendered rate under Item B14.01(e) shall include full compensation for the supply, erection and maintenance of the complete units as specified."

Add the following subclauses:

"(i) Kitchen units

The contractor shall provide two kitchen units with minimum interior floor area of 12m², a 1,5m wide veranda on one side with a 100 mm thick concrete floor in the vicinity of the offices.

The unit shall contain at least two opening windows, a lockable door, a three-plate electrical stove with oven, a steel framed formica topped table (0,6 m x 1,2 m), four steel framed bar or kitchen stools, a lockable refrigerator of one hundred and fifty litres capacity, a kitchen sink supplied with clean hot and cold potable water, a drain board coupled to a suitable drainage system and a lockable steel grocery cupboard.

B1403 HOUSING

(c) Rented accommodation

Add the following:

"The engineer will arrange for the obtaining of rented accommodation for his supervisory personnel on site. Payment of rent shall be made under the Provisional Sum in subitem 14.07(a) and shall be expended on a monthly basis as ordered by the engineer."

B1404 SERVICES

(b) Water, electricity and gas

Add the following:

The power supply shall be regulated by suitable UPS units in order to maintain a constant current and voltage level at all times to prevent damage to the office and laboratory equipment and related electronic equipment during power surges. In the event of damage to the office and laboratory equipment and related electronic equipment because of a faulty voltage, the contractor shall be liable for payment of all repair or replacement costs of such damaged items.

B1406 MEASUREMENT AND PAYMENT

Change the unit of measurement of item 14.01(e) to number and renumber as follows:

"Item

Unit

B14.01 (e) Ablution units number (No.)"

Add the following subitem to item 14.01:

"B14.01 (g) Kitchen units number (No.)

The unit of measurement and payment shall be the authorized number of units erected, complete and in accordance with the specifications and together with all items as specified in Clause B1402.

The tendered rate shall include full compensation for the supply and erection of units, accessories, furniture, etc. as specified and for the proper maintenance, cleaning and provision of daily requirements."

B14.03 Office and laboratory fittings, installations and equipment

(a) Items measured by number

Add the following new sub-items:

Item	Unit
(xix) Steel plan cabinets	Number (No)
(xx) Microwave oven 30litre	Number (No)
(xxi) Supply of computer equipment	
(1) Computer	Number (No)
(2) Printer/fax/copier	Number (No)
(3) Supply of ink, paper and other consumables	Month
(xxii) Flood lights complete with poles and 500watt minimum globes	Number (No)
(xxiii) Uninterrupted power supply units	Number (No)

The tendered rate shall be full compensation for providing all the equipment specified and all maintenance repairs to ensure that the equipment is maintained in fully serviceable condition. In addition the equipment shall be provided with ink/toner, paper and other consumables as required on a monthly basis.'

(b) Prime-Cost items and items paid for in a lump sum

Add to (b) (i) the following:

"Included, is the payment of rental and calls made by cell phone by the Engineer and his staff in the execution of their duties in respect of the contract administration."

Amend pay item "B14.03(b)(v) The provision of a fax apparatus as specified" to read "B14.03(b)(v) Provision of a fax, scanner, copier apparatus."

SECTION 1500: ACCOMMODATION OF TRAFFIC**B1501 SCOPE**

Add the following:

“It is a condition of this contract that traffic accommodation is in accordance with the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is volume 2, chapter 13 of the June 1999 edition. Copies of this publication are available from Government Printers – Arma Steyn – Tel: (012) 334 4500 e-mail: asteyn@print.pwv.gov.za.

This section also covers the provision of additional information signs for motorists and the release of any notices to the media and public.”

B1502 GENERAL REQUIREMENTS**(a) Safety**

Add the following:

“The contractor shall be responsible for maintaining the existing road surface both within the works area and the advance warning and termination areas in a safe and trafficable condition for the duration of the contract.”

(f) Approval of temporary deviations

Add the following:

“If, after any temporary deviation has been constructed, any changes are considered necessary or desirable, the proposal shall be submitted to the engineer for his approval.”

(i) Traffic Safety Officer

Add the following to the end of the second paragraph:

“The contractor shall submit a CV of the candidate to the engineer for approval before the candidate is appointed as the traffic safety officer.”

Insert the following as the opening phrase to sub-subclause (i)

“make himself available to discuss road safety and traffic accommodation matters whenever required by the engineer and shall be responsible...”

Delete sub-subclauses (ii) and (iii) and replace with the following:

“(ii) Record on neat and dimensioned sketches and submit to the engineer the position and sign reference number, where applicable, of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The position of each shall be adequately referenced from the marker boards or other surveyed points on the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the traffic safety officer, and shall be signed by the traffic safety officer before being submitted to the engineer.

The records shall similarly account for whatever changes are made in the field. Such changes shall record the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.

(iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9h30 and by 16h30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the engineer such record sheets by midday of the next working day. The traffic safety officer shall keep a duplicate book for this specific purpose.

The traffic safety officer shall also submit with this report the daily labour returns of flagmen, stop/go and traffic signal control men employed.”

Add the following sub-subclauses:

“(ix) The traffic safety officer shall be equipped with a cellular telephone and digital camera, and shall have a vehicle and sufficient labour at his disposal 24 hours a day, including all prescribed non-working days, and shall not be utilised for other duties. He shall be directly answerable to the contractor’s site agent. The traffic safety vehicle shall be a truck with a capacity of 3 tons and shall be equipped with a high visibility rear panel in accordance with the requirements of the SARTSM. The words TRAFFIC CONTROL shall be written on a warning sign in highly legible letters, not less than 150 mm high, and the sign shall be mounted on the vehicle at least 1,5 m above ground level. The proposed sign and letter dimensions shall be submitted to the engineer for his approval.

The vehicle shall also be equipped with an amber-coloured flashing light of the rotating parabolic reflector type with a minimum intensity of 100 W. The warning light shall be switched on at all times and the sign shall be displayed when the vehicle is used on site.

The traffic safety officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the contract. The provision of the road safety vehicle, driver, labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the contractor's establishment on site.

- (x) Ensure that all obstructions related to the contractor’s activities be removed before nightfall where applicable as instructed by the engineer and that the roads are safe for night traffic.
- (xi) The traffic safety officer shall, in addition to the duties listed in paragraph 1502 (i), also be responsible for the removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.
- (xii) In the advent of an accident the traffic officer shall record in a written report the details of the accident, record the position of all temporary road signs, barricades, delineators, flagmen and any other devices used for traffic accommodation. In addition the report shall include a neat dimensional sketch, photographs, identifiable permanent features, and any other relevant information.”

Add the following subclauses:

“(j) Site Personnel

The contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way. Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the engineer, ineffective shall be immediately replaced by the contractor.

“(k) Failure to comply with provisions

Failure or refusal on the part of the contractor to take the necessary steps to ensure the safety and convenience of the travelling public, accommodation of traffic, plant and personnel in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:

A fixed penalty of **R20,000.00** per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition a time-related penalty of **R1,500.00** per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within

the allowable time after the engineer has given an instruction to this effect. The engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.”

The number of travel lanes shall not be reduced except to scheduled work as per programme. If for whatever reason the number of lanes is reduced for a longer period or any other reason whatsoever than scheduled, the Contractor shall pay a daily lane rental levy. These lanes shall include the closure of interchange ramp lanes, crossroad lanes and/or carriageway lanes. The rental levy shall be per lane per hour or part thereof.

A levy of **R5 000** shall be paid for every hour or portion thereof that a lane restriction or road closure has been placed on any of the traffic lanes other than that specified or shown on the drawings.

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

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

“The contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, channelisation devices, barricades, warning devices and road markings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on the drawings and in the SARTSM and remove them when no longer required. It shall be incumbent upon the contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly.”

Replace the third paragraph with the following:

“The type of construction, spacing and placement of traffic-control devices shall be in accordance with the SARTSM. The recommended arrangements of the traffic control devices illustrated and/or drawings issued by the engineer shall not be departed from without prior approval of the engineer. The arrangements expected to be most commonly used in the contract are given on the tender drawings.

The details shown for spacing and placement of traffic-control facilities may however, be revised at the discretion of the engineer where deemed necessary to accommodate local site geometry and traffic conditions.”

a) Traffic control devices

Add the following at the end of the last paragraph:

“At each signalised traffic control point, an all-weather shelter of at least three (3) square metres capable of accommodating two operators, with a clear window, a stable door, two chairs and a portable chemical toilet that shall be regularly maintained, shall be provided. Each control point shall have a 2 (two) phased signal system mounted on 3m high steel poles complete with all electrical wiring, a floodlight system of at least 2x400W metal halide floodlights mounted onto a 9m high pole to light up the traffic control point and lighting along the road where the traffic will queue without shining directly into the approaching traffic. The provision shall include for a sufficient continuous power supply to operate each traffic control point. Included in the establishment and operation of the traffic control devices shall be a communication system that allows the operators to communicate with each other. At each traffic control point, plastic moveable barriers, fitted with STOP signs to both sides, shall be provided to prevent vehicles from utilising the closed road lanes. These barriers shall be moved to open and close the relevant lanes for road users.

Records of opening and closing of closures and traffic counts shall be kept and submitted daily to the traffic safety officer.”

(b) Road signs and barricades

Add the following:

“The contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, lost, or stolen.

All temporary road signs required to remain in position for some time shall be pole mounted as shown on the drawings. All temporary road signs required to be moved more often shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included in the tendered rates for the various types of temporary road signs.

The covering of permanent road signs, if applicable, shall be by utilizing a hessian bag that shall be pulled over the sign in the form of a hood and fastened to the signposts. Plastic bags or other materials and fastened by means of adhesive tape shall not be permitted. The cost of covering of permanent road signs shall be included in the tendered rates of items B15.01 and B15.10.”

(c) Channelisation devices and barricades

Add the following:

“The use of drums as channelisation devices shall not be permitted. Drums may however be used to set up barriers as provided for in sub clause 1503(d).

Delineators shall:

- (i) comply with the manufacturing and reflective requirements of the SARTSM and the blades shall be reversible with dimensions as indicated on the drawings;
- (ii) have smooth and round edges and be mounted on a post and base. All components shall be of durable plastic material;
- (iii) have the lower edge of the reflective part of the delineator mounted not lower than 250mm above the road surface;
- (iv) be capable of withstanding the movement of passing vehicles and gusting winds up to 60 km/h in typical working conditions without falling over. To achieve this, the base shall be at least 0,18 m² and ballasted by sandbags with sand;
- (v) together with its mounting be designed such that it will collapse in a safe manner under traffic impact.

Traffic cones manufactured in a fluorescent red-orange or red plastic material may be used only at short term lane deviations during daylight. Cones shall not be used on their own, but shall be interspersed with delineators at a ratio not exceeding 3:1. Cones used on all deviations shall be 750 mm high. Lane closures which continue into the night time shall be demarcated by delineators only.”

(e) Warning devices

Add the following:

“All construction vehicles and plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. All vehicles and plant before being allowed onto the site shall obtain a clearance permit from the engineer.

- (i) Vehicle mounted flashing lights

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted in such a way as to be highly visible from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area.

Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic

All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be highly visible and operated continuously while the vehicles are manoeuvring in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "construction vehicle" signs on the contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The contractor shall apply and maintain lights together with temporary mounting brackets, to the approval of the engineer. Vehicles and plant that do not comply with these requirements shall be removed from the site.

(ii) Sign mounted flashing lights

Two amber flashing lights shall be vertically mounted on top of the traffic signs at each end of each traffic accommodation section as shown on the drawings. The lights shall be operated during the hours of darkness."

Add the following sub clauses:

“(g) Other traffic control measures ordered by the engineer

“The engineer may instruct the contractor to provide any other road sign, reflective tape, etc not measured in standard pay items. Such road signs shall conform to the requirements of the SARTSM, or specification provided by the engineer. Similarly, in order to ensure that the travelling public is kept fully informed and warned on matters relating to the accommodation of traffic, construction sign posting and the effect of the construction on the free flow of traffic through the site, the engineer may arrange for advertising in the press and/or for other forms of publicity.

(h) Flagmen

During the daytime, at least two flagmen shall be provided at each traffic control point in addition to the STOP/GO sign operator, one flagman at the 80 km/h sign and a second roving flagman to indicate to the traffic at the end of the queue to stop. At night time, if required, only one roving flagman equipped with a Stromberg Lightman xenon strobe, or similar approved, and a torch is required at each traffic control point as well as the traffic light operator. Where the shoulder of the road is closed to traffic, a flagman shall be provided at the leading end of the closure during daytime. This flagman shall be provided at the 80-km/h sign to warn the traffic about the closure. No flagman shall be on duty for a period of more than 10 hours per day.

Flagmen shall be adequately trained in the standard flagging techniques as described in the SARTSM (refer to figure 13.23 of detail 13.23.1) and be provided with conspicuous clothing such as safety jackets utilizing retro-reflective and / or fluorescent panels in red, yellow and / or white.

Flagmen shall have in their possession, at all times, certification that they have attended and passed an accredited course in flagging techniques before being allowed onto the construction site. Flags shall be made from bright red or red-orange material and shall be square with a minimum side length of 600 mm. The flag shall be attached to a staff at least 1,0 m in length.

In terms of lateral clearance and safety, flagmen shall stand on the shoulder of the lane of traffic that is being controlled and under no circumstances shall flagmen be permitted to stand within the traffic lane. In order to obtain maximum visual impact for the travelling public, flagmen shall stand-alone.

The payment of flagmen shall be deemed to be included in the respective pay items where they are required as shown on the drawings, specified or shown in the SARTSM Manual. Only flagmen **specifically** ordered by the engineer shall be paid for separately.”

B1504 WIDTH AND LENGTH OF TEMPORARY DEVIATIONS

Two-way traffic must be provided at all times during peak hours. Half width construction with stop/go arrangements will only be allowed during the following hours:

Day time: 09:00 to 15:30. The road must be fully open to traffic outside these hours.

These times may be adjusted by the Engineer depending on actual peak traffic periods observed on site.

Stop/go closures shall not exceed 1.0 km in length. Not more than 2 closures will be permitted, provided there is a 2 km interval between such closures (2 km distance measured between stop/go signs).

B1517 MEASUREMENT AND PAYMENT

Amend item 15.01 to read as follows:

“Item	Unit
B15.01 Accommodating traffic and maintaining temporary deviations:	
(a) On Road P122/1	kilometre (km)
(b) On the cross roads and intersections	number (No.)

Replace the first paragraph with the following:

“The unit of measurement shall be the kilometre, measured along the centre lines of the road and the number of cross roads where work is carried out. Accommodation of traffic shall be measured once only, that is no separate payments shall be made for lane and shoulder rehabilitation, slurry, reseal, asphalt overlay, side drains, etc. Only the net distance of the road shall be measured and overlapping distances during staged rehabilitation or construction shall not be measured.”

In the second paragraph, replace the comma after “deviations” at the start of the third line with a full stop and delete the remainder of this first sentence. Also delete the whole of the second sentence, which refers to compensation for the traffic safety officer.

In the third paragraph second sentence, insert a full stop after “use” and delete the remainder of the sentence.”

“Item	Unit
B15.03 Temporary traffic control facilities	

Add the following:

“(a) Flagmen	man-day
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“The unit of measurement shall be a full day and night worked by flagmen as ordered by the engineer. A man-day shall be deemed to comprise of three eight hour shifts in a twenty four hour period. Three shifts of eight hours per flagman equates to one man-day. Shorter single portion shifts (6 to 10 hours) shall be measured as a half man-day. Flagmen included as part of other traffic control items shall not be measured under this item.”

Add the following subitem:

“(n) Other traffic control measures ordered by the engineer:	
(i) Provision of other traffic control measures	Provisional (Prov Sum)
(ii) Handling costs and profit in respect of subitem B15.03 (n) (i)	Percentage (%)

Expenditure under this item shall be made in accordance with the general conditions of contract, Subclause 13.5, for the supply and installation of any additional signs or other traffic control measure ordered by the engineer in accordance with clause B1503(g).

The tendered percentage is a percentage of the actual amount spent under subitem B15.03 (n)(i), which shall include full compensation for the handling costs of the contractor, and the

profit in connection with providing other signs and traffic control measures ordered by the engineer.”

Add the following pay items:

“Item

“B15.10 Accommodation of traffic where the road is constructed in half-widths

- (a) Single carriageway Kilometres (km)
- (b) Extra-over Item B15.10(a) for intersections Lump Sum

The unit of measurement for sub-item (a) shall be the kilometre measured along the centre line of the road which is constructed in half-widths.

The unit of measurement for sub-item (b) shall be a lump sum for all intersections included in the contract.

The tendered rate shall include full compensation for all additional costs related to construction of intersections. The Contractor will propose a method of construction for each intersection that will allow traffic accommodation to the satisfaction of the Engineer and all road authorities concerned. This may include total closures and/or working after hours if approvals can be obtained from the relevant authorities. The rate will also include obtaining approval from the relevant authorities. Alternative pavement layers may be used, if approved by the Engineer, including asphalt base and/or Bitumen Stabilized Materials (BSM’s). These layers will be paid for under the relevant payment items, but this rate will include any additional cost for working in restricted areas or any other limiting conditions.”

Amend item 15.11 to read as follows:

Item	Unit
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“B15.11 Signalised Traffic control devices

- (a) Providing signalised traffic control devices..... number (No)

The unit of measurement shall be the number of traffic control devices provided where a traffic control device is deemed to be 2 (two) signalised points, one at each end of a closure. The tendered rate shall include full compensation for the provision of complete sets of signalised traffic control devices as specified.

75% of the rate offered will be payable when the traffic control devices have been provided on site ready for use and 25% when finally removed from the site.

- (b) Operating signalised traffic control devices..... month device

The unit of measurement shall be the month set or part thereof that the signalised traffic control device is operated.

The tendered rate shall include full compensation for all costs necessary to operate and maintain the signalised traffic control devices in full working order for 24 hours per day in compliance with the specification and shall include for 2 (two) operators per shift. Also included in the tendered rate shall be the cost of operation the communication system between the traffic control devices.”

Unit

“B15.14 Amber flashing lights mounted on signs	number (No)
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The tendered lump sum shall include full compensation to provide, erect, operate and maintain two amber flashing lights per sign at each end of the traffic accommodation sections. It shall also include the provision of power to operate the lights, replacing bulbs as required and keeping the lenses clean and visible.”

“B15.15 Provision of traffic safety equipment for use by the engineer

- (a) Safety jackets number (No)
- (b) Amber flashing lights with magnetic base number (No)

The unit of measurement shall be the number of each item provided as specified, and approved by the engineer.

The tendered rates for the various safety items shall include full compensation for provision thereof and maintenance in good working order. “

“Item	Unit
B15.16 Traffic safety officer	Month

The unit of measurement shall be the period in months that the approved traffic safety office is employed.

The tendered rate per month shall include full compensation for the cost of the traffic safety officer to conduct his duties as specified in subclauses B1502 (i).

B15.17 Penalties

- | | |
|----------------------------------|---------------|
| (a) Fixed penalty per occurrence | number (No) |
| (b) Time related penalty | hour (h) |
| (c) Lane rental levy | lane-hour (h) |

In sub item B15.17(a) a fixed penalty of R20 000.00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition in sub item B15.17 (b), a time-related penalty of R1 500.00 per hour over and above the fixed penalty in sub-item B15.17 (a) shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within reasonable time after the engineer has given an instruction to this effect. The engineer’s instruction shall state the time in hours for re-instatement of the defects. Should the contractor fail to adhere to the instruction, the time-related penalty will be applied from the time the instruction was given.”

In sub item B15.17 (c) a levy of R5 000 shall be paid for every hour or portion thereof that a lane restriction or road closure has been placed on any of the traffic lanes other than that specified or shown on the drawings.

SECTION 1600: OVERHAUL**B1602 DEFINITIONS****(a) Overhaul material**

Add the following sub-subclause:

"(vii) Any material, irrespective of the type of material, which is removed from the existing pavement layers and spoiled at designated spoil sites, or is re-used in other parts of the works or to approved stockpiles or from stockpiles to any part of the works".

(b) Overhaul

Replace the sub-clause with the following:

"Overhaul shall not be payable on materials transported from commercial sources.

Payment shall only be made for material hauled in excess of 1 kilometre. Overhaul shall be measured as the product of the volume of material hauled and the overhauled distance".

(d) Free-haul distance

Replace the last sentence with:

"This distance shall be one (1) kilometre in the case of all overhaul materials"

B1603 MEASUREMENT AND PAYMENT

Amend item 16.02 as follows:

"Item	Unit
B16.02 Overhaul on material hauled in excess of 1 km	m³km'

Delete the first paragraph of the first set of notes.

SECTION B1700: CLEARING AND GRUBBING**B1701 SCOPE**

Add the following as a final paragraph:

“Clearing and grubbing for the construction of site offices shall not be measured separately and shall be deemed to be included in the rates tendered for item B13.01.”

B1702 DESCRIPTION OF WORK**c) Conservation of topsoil**

Add to the end of the 1st paragraph:

“The depth of topsoil removed shall be reliant on the terrain, suitability of material and topsoil requirements of the work. Generally the contractor will not be required to remove topsoil to more than an average depth of 400mm unless approved by the engineer before commencing with topsoil removal from any particular area.”

Replace the second paragraph of this clause with the following:

“After clearing and grubbing, all topsoil shall be removed to either windrows alongside the construction area or to stockpile. Where ordered by the engineer, any topsoil that shall be required for the top soiling of new banks and cuts, but which cannot be accommodated within the construction site, shall be loaded and hauled to the designated stockpile area where it shall be placed in temporary stockpiles for later use in the rehabilitation of the site affected by construction activities. Where new borrow pits are to be opened up the topsoil shall first be removed (independently of the overburden) and placed in temporary stockpiles at the edge of the borrow pit. The moving of topsoil from windrow or the loading of topsoil from temporary stockpiles and the placing and spreading thereof on cut or fill slopes or on borrow pit spoil sites, is covered in Section 5800.”

B1704 MEASUREMENT AND PAYMENT

Add the following as a first paragraph under the pay item:

B17.01

“Contractors are advised to familiarise themselves with the extent and type of vegetation within the road reserve that is required to be cleared, which consists of predominantly Albany Coastal Belt Thickets and Fynbos.”

Add the following payment item:

“Item	Unit
B17.07 Removal and temporary stockpiling of topsoil:	
(a) Topsoil in windrows alongside the work area	cubic metre (m ³)
(b) Topsoil in temporary stockpiles after loading material into trucks including 1,0km free haul	cubic metre (m ³)

The unit of measurement for items (a) to (c) shall be the cubic metre of topsoil removed to windrow or temporary stockpile. The volume of topsoil removed shall be measured in cut, calculated from the difference in cross-sections of the natural ground level before the commencement of clearing to cross-sections taken after the removal of the topsoil.

The contractor shall constantly liaise and agree with the engineer as to the depth of topsoil to be removed. Where, in the opinion of the engineer, material that would normally be classed as topsoil has also been excavated, the excavation shall be backfilled and compacted with selected material at the contractor's expense. Should material that is deemed by the engineer not to be topsoil, be removed and stockpiled together with material classed as topsoil, the contractor shall be responsible for the removal of this unsuitable soil from the stockpile and the replacement of the quantity of topsoil contaminated by the unsuitable material at his cost. The quantity of topsoil to be replaced shall be determined by the engineer.

The rates tendered shall include for the excavation of the topsoil and where required, the loading and hauling thereof to temporary stockpile as well as the maintenance of the stockpile until re-use of the material. The rates tendered shall also include for all supervision required to ensure that only topsoil is removed.

SECTION B1800: DAYWORKS AND HIRE OF CONSTRUCTION EQUIPMENT

Add the following section to the standard specifications:

SECTION B1800: DAYWORKS AND HIRE OF CONSTRUCTION EQUIPMENT**Contents**

B1801	SCOPE
B1802	GENERAL REQUIREMENTS
B1803	MEASUREMENT AND PAYMENT

B1801 SCOPE

This section covers the listing of daywork items in accordance with the general conditions of contract clause 6.5, for the use in determining payment for work which cannot be quantified in specific units in the schedule of quantities, or work ordered by the engineer during the construction period which was not foreseen at tender stage and for which no applicable rate exists in the schedule of quantities.

B1802 GENERAL REQUIREMENTS

Work will be classified as daywork only if the Engineer considers no other rate in the Bill of Quantities appropriate for payment purposes.

An instruction regarding all work to be carried out under daywork in terms of Clause 6.5 of the General Conditions of Contract will be issued at the discretion of the Engineer. Some or all of the items priced under daywork in the Bill of Quantities may possibly not be required for this Contract.

The Contractor and the Engineer will agree on the method of recording the working hours prior to the commencement of the work. Any long period of idling at any one time which in the opinion of the Engineer or his representative is beyond that required for normal operating conditions will not be paid for as working time. Non-working hours for any reason shall not be measured for payment.

B1803 MEASUREMENT AND PAYMENT

Item	Unit
B18.01 Personnel during project working hours	
(a) Unskilled labour	hour (hr)
(b) Semi-skilled labour (Charge hand)	hour (hr)
(c) Skilled labour (Artisan)	hour (hr)
(d) Foreman	hour (hr)
(e) Surveyor	hour (hr)
B18.02 Plant	
(a) Trucks	
(i) Tip Truck 6m ³	hour (hr)
(ii) Tip Truck 10m ³	hour (hr)
(b) TLB tractor fitted with backactor and loader	
(i) Model 55kW power	hour (hr)
(ii) Model 70kW power	hour (hr)
(c) Vibratory roller (self-propelled)	

(i)	Model mass 2t width 0.9m	hour (hr)
(ii)	Model mass 10t width 2.2m	hour (hr)
(d)	Air compressor complete with all tools, drills, jackhammers, etc. (10m ³ /min)	hour (hr)
(e)	Grader Cat 140G or equivalent	hour (hr)
(f)	Water truck (9 000 litre)	hour (hr)

The unit of measurement for items B18.01 and B18.02 shall be the hour for the item of plant or personnel. Non-working hours for transport breakdown, lack of operator of any other reason shall not be measured. The time shall be taken from the time that the personnel and/or plant depart until return.

Prior to the commencement of any work by the labourers described under items B18.01, the contractor must obtain written consent from the engineer regarding the classification of all labourers in terms of "unskilled", "semi-skilled" and "skilled" labourers.

The tendered rates for labour for items B18.01 shall include full compensation to cover overhead charges and profit, leave pay, bonuses, subsistence, allowances, employer's contributions, additional payment for overtime where applicable, insurances, housing, site supervision, use of small hand tools and appliances, non-mechanical plant and equipment and consumable stores, for all administrative, supervisory, operative and contingent costs, relating to the supply of personnel.

The tendered rates for plant for item B18.02 shall be an all-inclusive hire charge for the use of the vehicle and driver or plant/equipment and operator and shall apply only to vehicles plant and equipment nominated in writing by the engineer, for all administrative, supervisory operative and contingent cost, and profit, relating to the running of the plant.

The above-mentioned tendered rates shall be full compensation for the various items as specified and no further profit shall be paid.

The rates shall be for the working hours of this contract.

Item	Unit
B18.03	Materials
(a) Materials	Provisional Sum
(b) Percentage on net cost of materials	percentage (%)

The prices for materials (excluding VAT) shall be based on the documented proof submitted to the Engineer in accordance with the General Conditions of Contract. The prices shall not be subject to the Contract Price Adjustment factor.

The tendered percentage as an on-cost on the net cost price of materials shall include full compensation for handling, overheads, profit, liabilities, obligations, risks, incidentals, wastage and other on-cost for the supply, delivery and distribution of materials for dayworks."

SECTION 2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS

B2301 SCOPE

Add the following to this clause

“This section also covers the replacement of damaged concrete kerbing, channelling and lining.”

B2304 CONSTRUCTION

(b) Prefabricated concrete kerbing and channelling

Add the following:

“All precast kerbs shall be provided with continuous in situ concrete backing (haunching), the cost of which shall be included in the tendered rate. Dimensions of the triangular-shaped (in cross-section) haunching shall be: if the difference in levels between the top of the kerb and the subbase on which the kerb is laid is h , then the height of the haunch is $\frac{2}{3}h$ and the width of the haunch is h .”

(e) Cast in situ kerbs and channels

Add the following:

‘Where new kerbing and channelling have to be laid in an existing surface, the surface shall be neatly cut to a straight line with an angle grinder or similar approved means along the edge of the channel. The existing road foundation shall then be removed over the width and depth required to construct the new kerb and channel.

During the construction of the in situ channel, the contractor shall take care not to stain or damage the existing road surface.

Add the following sub-clauses:

“(l) Shrinkage joints for cast in situ concrete work

Cast in situ channels shall be provided with shrinkage joints spaced a maximum of 2m apart. Shrinkage joints shall be constructed so that shrinkage cracks are generated at the joints. Sections of channel which have cracked between shrinkage joints shall be removed and replaced by the contractor at his own cost.”

“(m) Removal of existing kerb and channel

Where indicated by the engineer, the existing kerb and channel shall be removed and transported to spoil as directed.”

B2307 MEASUREMENT AND PAYMENT

Edit pay Item B23.02 as follows:

Item	Unit
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“B23.02 Concrete kerbing-channelling combination (cast in-situ concrete class 25/19)	
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The measurement and payment for item B23.02 (b) shall be as for item 23.04 (a) and shall also include the provision of shrinkage joints in cast in situ concrete work, as shown on the drawings.”

Item	Unit
B23.16 Demolition and removal of existing kerbs and/or channel, concrete lined drains (300mm maximum size).....cubic metre (m³)	

The unit of measurement shall be the cubic metre (m³) of material measured in situ before demolition or excavation.

The tendered rate shall include full compensation for breaking up the existing concrete or reinforced concrete to a specified maximum size, 300mm, removal from site to an approved spoil site, clearing the excavation of all loose debris and to backfill the excavation where new concrete is not required. Overhaul will be paid under item 33/16.02.

SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL**B3402 MATERIALS****(a) General**

Add the following at the end of the second paragraph:

"For chemically stabilised layers the material shall conform to the requirements in table B3402/5."

Replace Table 3402/5 with:

"Table B3402/5

Requirements For Chemically Stabilised Layers

Classification	C3	C4
Material before treatment	At least G5 quality	At least G6 quality
PI after treatment	6 max. *(1)	6 max. *(1)
UCS (MPa) *(2)	1,5 min	0,75 min.
ITS (kPa) *(3)	250 min.	200 min.
WDD (% loss) *(4)	20 max.	30 max.

Note *(1) For materials derived from the basic crystalline rock group, the Plasticity Index after stabilisation shall be non-plastic.

*(2) Unconfined Compressive Strength @ 100% Mod. AASHTO density.

*(3) Indirect tensile Strength @ 100% Mod. AASHTO density.

*(4) Wet/Dry Durability according to Method B 8110."

(b) Compaction requirements

Add the following to this sub-clause:

The compaction requirements for the layers to be constructed under this contract are:

Upper 150mm of 300mm recycled layer	97% of mod AASHTO density
Lower 150mm of 300mm recycled layer	95% of mod AASHTO density
150mm below recycled layer	95% of mod AASHTO density
Gravel Shoulder	93% of mod AASHTO density

Add the following sub-clause:

“(d) Excavations

Excavations in the pavement shall be kept dry. In the event of water penetrating the underlying layers, construction of the consecutive layers shall be postponed until the underlying layers are dry enough to accommodate the construction plant without any deformation or distress.”

B3405 CONSTRUCTION TOLERANCES**(a) Level**

Replace the table in the sub-sub-clause with the following:

“	H_{90}	H_{max}
Selected layers	25 mm	33 mm
Sub-base layers	15 mm	20 mm
Base layers	12 mm	15 mm
Shoulders		25 mm"

Add the following:

"Level control for the various pavement layers shall be done at least at the following intervals in the longitudinal direction:

Layer	Interval
Selected layer, sub-base, shoulders and wearing course	20 m
Base	10 m

(b) Layer thicknesses

Replace the table in the sub-sub-clause with the following:

“	D_{90}	D_{max}	D_{ave}
Selected layers	25 mm	35 mm	8 mm
Sub-base layers	18 mm	24 mm	5 mm
Base layers	15 mm	22 mm	5 mm
Shoulders		30 mm	0 mm"

(f) Surface regularity

Replace the subclause with the following:

“For new base layers and rehabilitation of existing base layers where the layer or part thereof (in depth) is required to be reworked or recycled over a length of 600m or more and over the full width of a traffic lane or shoulder wider than 2.0m (to be surfaced) the roughness of the base layer will be determined by using an inertial laser profilometer capable of producing a Class 1 vertical measurement resolution, and a Class 3 longitudinal sampling distance as defined in ASTM standard (E950-09). If the inertial laser profilometer is unavailable the roughness of the base layer can be determined by using an ARRB Walking Profiler or Face Dipstick® Profiler. However, these latter instruments are not suitable for mass measurements. Shoulders less than 2.0m wide (to be surfaced), will be assessed according to measurements obtained from the adjacent lane.

The inertial laser profilometer, ARRB Walking Profiler or Face Dipstick® Profiler shall be used to record the longitudinal profile in both wheel tracks of each traffic lane or shoulder wider than 2.0m, as determined according to the final line markings that will be applied on road surface after completion of construction. For Inertial laser profilometer three repeated runs will be required, for the ARRB Walking Profiler or Face Dipstick® Profiler only single measurement will be required per wheel track. The two wheel tracks shall be 1,75m apart. Should the two

tracks not be measured simultaneously during the same pass, then procedures shall be implemented to ensure that the longitudinal profile data recorded for the two wheel tracks are at the same longitudinal location on the road.

The measured longitudinal profiles will then be processed using the Quarter-Car simulation model with parameter values as defined in ASTM standard (E1170-97) for Ride Meter-Vehicle Mounted. The simulated suspension mentioned will then be linearly accumulated and divided by the length to yield 100m IRI (International Roughness Index) values in units of mm/m or m/km for each wheel track. The last 50 metres, and the joining first 50 metres of adjacent sections will be evaluated as a 100 m section in the direction of vehicle travel. For inertial laser profilometer measurements the left and the right 100 m IRI values from the three runs for each measured lane will then be averaged to produce the Average IRI as follows:

$$\text{Run1 IRI}_{100\text{m Ave}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Run2 IRI}_{100\text{m Ave}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Run3 IRI}_{100\text{m Ave}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Average IRI}_{100\text{m}} = (\text{Run1 IRI}_{100\text{m Ave}} + \text{Run2 IRI}_{100\text{m Ave}} + \text{Run3 IRI}_{100\text{m Ave}}) / 3$$

For the ARRB Walking Profiler or Face Dipstick Profiler measurements the Average IRI will be calculated as follows:

$$\text{Average IRI}_{100\text{m}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

The Average IRI_{100m} values is then evaluated and judged according to Table B3405/1 to determine whether the 100m section needs corrective work or payment adjustments.

TABLE B3405/1: PAYMENT ADJUSTMENT FOR BASE LAYER

Average IRI _{100 m} (m/km)	PAYMENT ADJUSTMENT FACTOR		
	Reworked or Recycled Base	Recycle existing layers + New Base Layer	New Pavement Construction
<1.30	1.050	1.050	1.050
1.31 to 1.40	1.050	1.050	1.050
1.41 to 1.50	1.050	1.050	1.025
1.61 to 1.70	1.050	1.050	1.010
1.71 to 1.80	1.050	1.050	1.000
1.81 to 1.90	1.050	1.025	0,990
1.91 to 2.00	1.050	1.010	0,975
2.01 to 2.10	1.050	1.000	0,955
2.11 to 2.20	1.025	0,990	0,930
2.21 to 2.30	1.010	0,975	0,900
2.31 to 2.40	1.000	0,955	0.865
2.41 to 2.50	0,990	0,930	Reject
2.51 to 2.60	0,975	0,900	Reject
2.61 to 2.70	0,955	0.865	Reject
2.71 to 2.80	0,930	Reject	Reject

Average IRI _{100 m} (m/km)	PAYMENT ADJUSTMENT FACTOR		
	Reworked or Recycled Base	Recycle existing layers + New Base Layer	New Pavement Construction
2.81 to 2.90	0,900	Reject	Reject
2.91 to 3.00	0.865	Reject	Reject
>3.01	Reject	Reject	Reject

Any adjustment to the payment for the base will be made by multiplying the full payment value for each 100m section, for payment items 36.01 by the payment adjustment factor derived from Table B3405/1. The payment adjustment shall apply to the total base layer width placed over the 100m section in question.

Surfaced shoulders less than 2m wide will be assumed to have the same roughness measurements as the adjacent lane and the quantity of material in the shoulder shall be added to the quantity of material of the adjacent lane for determination of the payment adjustment factor.

On sections where the Average IRI_{100 m} is worse than the cut-off value listed in Table B3405/1 the section is rejected and corrective work will be necessary.

Any corrective work required shall be made by the removal of the total base layer width placed over the 100 m section in question, followed by reinstatement. Surfaced shoulders less than 2.0m wide will be treated similar to the adjacent slow lane. Corrective work shall not commence until the engineer has approved the contractor's method statement. If the contractor proposes any other corrective procedure he shall apply to the engineer for the Employer's approval of his proposal. Corrective work shall be done at the contractor's expense and shall be completed prior to determining pavement thickness. After completion of the corrective work, the 100 m sections shall be re-evaluated according to the specifications.

The longitudinal profile and the 100 m International Roughness Index (IRI) values shall be determined using an inertial laser profilometer or an ARRB Walking Profiler or Face Dipstick® Profiler furnished and operated by the contractor or on his behalf in the presence of the engineer. Prior to using an inertial laser profilometer it shall have successfully completed a validation trial against the Instrument of Reference (Face Dipstick®) used by the Employer.

As an absolute minimum the longitudinal profile shall be measured as soon as a 2000 m section of lane or shoulder is completed. Where shorter than 2000 m sections of a layer is required to be constructed the section as a whole will be measured as soon as it is completed. The contractor will be paid for these measurements under payment item B81.04. No additional payment will be made to the contractor for additional measurement and analysis of profiles if ordered for his own assessment purposes, or if additional surveys are required as a result of any remedial/corrective work identified and subsequently completed.

For new base layers and rehabilitation of existing base layers where the layer or part thereof (in depth) is required to be reworked or recycled over a length of less than 600 m and over the full width of a traffic lane or shoulder the roughness of the layer will be determined by using a

rolling straight edge as described in subclause 8111(c), the number of surface irregularities shall not exceed those given below:

- (i) the average number of irregularities per 100 m equal to or exceeding 5 mm when taken in the wheel paths over 300 – 600 m lengths: 3
- (ii) the number of irregularities equal to or exceeding 5mm when taken in the wheel paths over 100 m lengths: 4

The maximum value of any individual irregularity measured with the rolling straight-edge or a 3m straight-edge shall not exceed 10mm.

The measurements with a rolling straight edge or 3m straight-edge shall be done in each wheel path of each lane or shoulder over the full length of the section.

Where a 3m straight-edge is used it shall be placed in such a way that for a measured line each measurement shall overlap by at least 500mm with the previous measurement.”

B3406 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

“FOR THE PURPOSES OF THIS CONTRACT, THE TEST RESULTS AND MEASUREMENTS WILL BE ASSESSED IN ACCORDANCE WITH SECTION 8200.”

B3407 MEASUREMENT AND PAYMENT

Amend the following pay item and renumber as follows:

“B34.01 Pavement layers constructed from gravel obtained from commercial sources including unlimited free haul.”

Add the following sub pay item to B34.01(f):

“Item	Unit
(iii) 97% of modified AASHTO density	cubic metre (m ³)”

Add the following pay items:

“Item	Unit
-------	------

“B34.14 Pavement layers constructed from gravel obtained from commercial sources including unlimited free haul

- a) Gravel selected layer (specify material quality and density)cubic metre (m³)
- c) Gravel subbase (unstabilized gravel) (specify material quality and density).....
.....cubic metre (m³)
- g) Gravel shoulder wearing course(specify material quality and density).....
.....cubic metre (m³)
- h) Gravel base (unstabilized gravel) (specify material quality and density).....
..... cubic metre (m³)
- j) Gravel fill(specify material quality and density)..... cubic metre (m³)
- k) Pioneer layer(as specified in subbase 3307(c)).....cubic metre (m³)

“B34.15 Impact Compaction

- a) Establishment of 25 kJ 3-sided impact compact.....Number (No)
- b) Impact compaction with 25 kJ 3-sided impact compactor as and when instructed by the Engineer.....square metre-pass (m²-pass)

The tendered rate for Item B34.15(a) shall include full compensation for the provision of the impact compactor on site and subsequent removal thereof.”

SECTION 3500: STABILISATION**B3502 MATERIALS****(a) Chemical stabilising agents**

Delete subclauses (ii) Ordinary Portland cement and (iii) Portland blast-furnace cement and replace with the following:

"Cement shall comply with the relevant requirements of SANS 50197-1:2000. The use of strength classes greater than 32,5 shall not be permitted. On this contract CEM II 32,5N shall be used for stabilization purposes."

(h) Curing the Stabilised work

Add the following to paragraph (i):

"Method (iii) and (iv) shall not be applicable."

(i) Construction limitations

Add the following:

"No Stabilisation shall be done with falling air temperatures when the air temperature falls to below 7 °C or during rising air temperatures, when the air temperature is below 3 °C.

Moisture content tests shall not be undertaken more than one day in advance of in-situ Stabilisation operations. Care shall be taken to ensure that samples are representative of the in-situ material. Checks shall be conducted when wet weather occurs between initial testing and work commencing on any section."

(d) Applying the stabilizing agent

Add the following paragraph:

"When applying the stabilizing agent with an in situ recycler adjacent cuts shall overlap by at least 150mm. Over application of the bitumen and water, or diluted emulsion, in the overlap shall be avoided."

(e) Compaction

Add the following sentence:

"Where an in situ recycler is used to construct a bitumen stabilized material the contractor shall ensure that the material between the wheel paths of the recycler is compacted to at least the same density as the material in the wheel paths before the grader is allowed to start leveling."

(g) Construction limitations

Add the following:

- Where active filler is spread by hand the filler shall be accurately and uniformly spread on the road surface immediately prior to commencing work with the recycler. The contractor shall ensure that no traffic is allowed, at any time, to travel over the spread filler.

- Where the material is pre-treated with lime sufficient time shall be allowed for modification to take place before bitumen treatment. The minimum time allowed shall be as authorized by the engineer.
- The contractor shall accurately measure and report to the engineer the depth of cut at least once every 100 metres.
- The contractor shall physically check the actual overlap achieved at least once every 200 metres by measurements taken in front of the and behind the recycler.

B3506 TOLERANCES

(b) Uniformity of mix (chemical stabilisation)

Add the following:

"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:

X_n is the average, and

S_n is the standard deviation of stabilizer.

Method A15(d) The acid/base back titration method shall be used to determine the chemical stabilizer content."

B3507 CONSTRUCTION OF TRIAL SECTION

Add the following to the last paragraph:

"The fact that the engineer has approved the mixing process shall not relieve the contractor of his obligations in respect of the mixing specified elsewhere in the specifications. It will serve only as a guideline to ensure that the specified mixing requirements can actually be met."

B3509 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following after the second paragraph:

"The test results and measurements will be judged in accordance with the provisions of Section 8200."

B3510 MEASUREMENT AND PAYMENT

Item

B35.01 Chemical stabilization extra over unstabilized compacted layers

Replace the first paragraph with the following:

"The unit of measurement shall be the cubic metre of stabilized material, the quantity of which shall be determined in accordance with the final in situ authorised dimensions of the layers treated and/or stabilised as instructed by the engineer. Additional material preshaped to allow for finishing by cutting only will not be included in the measurement."

Item**B35.02 Chemical stabilizing agent:**

Replace the third paragraph with the following:

"Subject to the provisions of clause 1220, the quantity of stabilizer will be determined in accordance with the authorised rate of application and layer dimensions. Extra stabilizer added for wastage and higher preshaping levels will not be included in the quantity and the cost thereof shall be deemed to be included for in the rates."

Amend the following pay item and renumber as follows:

Item	Unit
B35.03 Mechanical modification (extra over untreated layer)	
(c) By mixing in at most 25% of millings	cubic metre (m ³)

SECTION B3600: CRUSHED-STONE BASE**B3602 MATERIALS****(a) Requirements for crushed aggregate**

After the first sentence delete the remainder of the paragraph and replace with the following:

"The aggregate shall not contain more than 0,1% by mass of unwanted material such as wood, coal or similar organic material.

Aggregates containing mica, such as granite, gneiss, mica schist, pegmatite, sandstone shall not contain more than 2% by mass of free mica, especially muscovite, when assessed by visually separating the particles, or more than 4% by volume when assessed by means of microscopic slides. Aggregate containing easily detectable quantities (more than 1%) of olivine, serpentine and sulphide minerals such as pyrites and marcasite, must be considered with caution, and may warrant additional evaluation to the satisfaction of the engineer. Argillaceous rocks may only be used if specified in the project specifications, or with the engineer's written approval.

Soft or weathered particles shall be controlled by the Durability Mill Index values specified in B3602(e) Durability.

Provision has been made in clause B8108(b)(iii), calculation, for the determination and calculation of the Apparent Density for aggregates with a total water absorption greater than 1,5%, when total water absorption is determined according to TMH1 methods B14 and B15."

(c) Grading requirements

Replace entire clause with the following:

"The target grading, after compaction, shall be as near as possible to the mean of the specified grading envelope listed in table 3602/1 and shall be continuous with no marked gaps or excessive quantities of any particular size. The mean grading of each lot (minimum of 4 but preferably 6 test points per lot) shall conform to the approved target grading plus or minus the tolerances specified in table 3602/4."

Add the following sub-clause:

“(e) Durability

The durability property of aggregates derived from the basic crystalline group shall be assessed by means of the Ethylene Glycol Durability Index. When tested in accordance with the method prescribed in B 8105(g) the Durability Index shall not exceed four. In addition, the 10% FACT value obtained after soaking in ethylene glycol for four days shall not be less than 50% of that obtained on the unsoaked sample. Where any values are obtained that fall outside the above requirements, a detailed assessment of the quarry shall be undertaken together with a specialist mineralogical evaluation of both the coarse as well as fine fractions in order to assess the long-term durability properties of the material.

For Basic crystalline rocks, Arenaceous rocks, Argillaceous rocks and Diamictites the Durability Mill Index (DMI) shall be less than 125. For all other rock types the Durability Mill Index (DMI) shall not be more than 420, subject to the % passing the 0,425mm sieve not increasing by more than 8 percentage points during the Durability Mill test."

Table 3602/1

In table 3602/1 delete "85% of bulk relative density" and replace with:

"88% of Apparent Density".

Add the following sub-clause:

(f) Water

"Water used in the compaction and slushing of the crushed stone base layer shall comply with the requirements of Water Quality Code H3 as specified in table B1219."

B3604 CONSTRUCTION

(b) Compaction

Add the following at the end of the first paragraph:

“The specified density shall be obtained throughout the entire layer depth and densities shall be measured at a minimum of three depths, namely 50mm, 100mm and 150mm. At each of these depths the specified density shall be obtained”.

(c) Surface preparation of the base

Add the following:

“Slushing of the base, as described in subclause 3604(c) (i), is compulsory and shall be carried out within 48 hours after completion of the compaction. Even if the specified density is achieved without slushing or before completion of the slushing process, the full slushing process must still be completed as described in subclause 3604(c)(i)”.

B3605 PROTECTION AND MAINTENANCE

Replace “moisture content of the layer” in the first paragraph with “moisture content of the upper 50mm of the layer.”

Add the following to the end of the second sentence:

“as determined according to TMH 1 method A7 or applicable SANS: 3001 test method.”

B3606 CONSTRUCTION TOLERANCES

Add the following paragraph to this section:

“Level control on all layers constructed with a G1 quality crushed stone shall be carried out at 10m intervals and not the usual 20m intervals. No additional payment will be made for this requirement.”

B3607 QUALITY AND WORKMANSHIP

Delete “or 8300” in the second paragraph.

B3608 MEASUREMENT AND PAYMENT

Delete the first paragraph and replace it with the following:

“Note: No additional or extra over payment shall be made for work in restricted or confined areas.”

SECTION B3800: BREAKING UP EXISTING PAVEMENT LAYERS

B3804 PLANT AND EQUIPMENT

(a) Milling equipment

Add the following:

“No payment shall be made for moving the milling machine on the site.”

B3805 CONSTRUCTION

(b) Milling

(iii) Asphalt

Add the following paragraph:

“The material originating from the milling of the existing asphalt layers shall become the property of the contractor and the disposal thereof to an approved dump site shall be the responsibility of the contractor. The cost for disposing of the milled material, inclusive of loading and haulage, shall be deemed to be included in the tendered rate for the milling of the asphalt layers.”

(vi) General

Add the following:

“Where milling is to be done at existing structures, care shall be exercised to avoid damage to concrete elements, expansion joints, nosings to expansion joints, manholes, catch pits etc. Damage caused to any element forming part of the permanent works shall be repaired at the Contractor’s cost.

The floor of the milled excavation shall be cleaned out of all loose material by brooming. The exposed floor of the excavation shall be lightly sprayed with water to identify cracks. The engineer shall be given the opportunity to inspect the milled surface for cracks and loose patches and any cracks or loose patches shall be repaired in accordance with the relevant sections of the specification.”

B3807 MEASUREMENT AND PAYMENT

(b) Overhaul

Replace with the following:

“No overhaul shall be paid on material originating from the milling of the existing asphalt layers, irrespective of whether the contractor intends to utilise the material for recycling or reworking or whether the material is transported to a dump site. The contractor shall include for overhaul in the rates tendered.

Item	Unit
B38.02 Milling out existing bituminous material with an average milling depth:	cubic metre”

Delete the third paragraph in the description of payment and replace with the following:

“The tendered rate shall also include full compensation for loading, transporting and disposing of the material at an approved dump site or stockpile site, irrespective of the distance of haul or the method of loading and unloading.

The rates shall also include for transverse saw-cutting at the start and end of sections prior to the commencement of the milling operations. ”

SECTION B3900: PATCHING AND REPAIRING EDGE BREAKS**B3901 SCOPE**

Where long narrow stretches of pavement are to be repaired, the suitability of milling and/or recycling as well as paving of these areas should be considered instead of hard excavation and hand patching.

B3902 MATERIALS

Add the following subclause:

"(a) Backfilling of excavations for patching

"Excavations shall be backfilled with emulsion treated crushed stone.

B3903 PLANT AND EQUIPMENT

Add the following:

"A sawing machine shall be provided on site before any excavation of patches shall commence. It shall be power driven and able to cut accurately to the required depths and alignment. Skilled operators are required for operating the sawing machines. Operators shall be equipped with suitable safety equipment, e.g. safety goggles, etc for operating the sawing machines. No payment shall be made for standing time of the sawing machine."

B3904 PATCHING**(a) Demarcation**

Add the following:

"Before saw cutting may commence, the cut line shall be accurately pre-marked to the specified dimensions."

(c) Excavating pavement material

Add the following:

"In the event of the edge of a surfacing layer which was mechanically sawn being damaged by construction activities, the contractor shall at his own cost make good such damaged edges until the specified tolerances are met."

B3906 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

"The surface regularity of completed asphalt patches shall be measured with a 3,0m straight-edge in accordance with sub clause 8111(b) and no irregularity may exceed a maximum value of 5mm too high but 0 mm too low."

B3907 MEASUREMENT AND PAYMENT**B39.01 Sawing asphalt or cemented pavement layers for patching**

Change the unit of measurement of the pay item as follows:

The unit of measurement shall be changed from square metre (m²) to linear metre (m).

Item**Unit**

Add the following sub-items to pay item 39.03 and renumber as B39.03:

“B39.03 Backfilling of excavations for patching with:

- | | | |
|-----|--|-------------------------------|
| (c) | Emulsion treated crushed stone | |
| | (i) Not exceeding 5m ² | cubic metre (m ³) |
| | (ii) Exceeding 5m ² but not exceeding 100m ² | cubic metre (m ³) |
| | (iii) Exceeding 100m ² | cubic metre (m ³) |
| (d) | Backfilling of excavations for patching with asphalt surfacing | ton (t) |

The unit of measurement shall be a cubic metre of material placed in accordance with the specified requirements. The quantity shall be computed in accordance with the authorized dimensions of the excavation.

Add the following clause:

“B3908 CONSTRUCTION TOLERANCES, FINISH REQUIREMENTS AND RESTRICTIONS

The final riding surface on any particular point on patches shall not deviate more than 5mm from the bottom of a 3m long straight edge.”

SECTION B4100: PRIME COAT

B4102 MATERIALS

b) Aggregate for blinding

Add the following sentence:

“Blinding of the primed surface with aggregate shall only be permitted to facilitate vehicular access to adjoining properties”

B4104 WEATHER AND OTHER LIMITATIONS

Replace paragraph (g) with the following:

- “(g) When at any position within the layer the moisture content of a granular base layer is more than 50% of the optimum moisture content determined according to TMH 1, Method A7. In the event of rain after priming, the base shall be allowed to dry out to meet the above moisture content requirement prior to surfacing.”

B4106 APPLICATION OF THE PRIME COAT

Replace paragraph (c) with the following:

“The type of prime and application rate best suited for the base shall be determined during construction. The Contractor shall provide about 20ℓ of each prime and apply it at different application rates with a brush on the base. Then engineer will then instruct the type of prime and application rate to be used. No payment shall be made for tests to determine the type of prime.

Unless directed otherwise by the engineer or indicated on the drawings, the edges of the primed surface shall be 150mm wider than the edges of the surfacing. ”

Add the following sub-clauses:

- “(j) Application in areas treated by reworking and construction of a new base shall be primed using a mechanical distributor complying with sub-clause 4103(a). The edges of the previously constructed or existing surfacing shall be adequately protected by approved means to ensure that an overlap of prime not exceeding 50mm is sprayed onto the previously constructed or existing surfacing.
- “(k) Application of prime on any section of completed base shall be done within one (1) day after approval of that section by the Engineer.”

B4108 TOLERANCES

Replace the first paragraph with the following:

"The actual spray rates measured at spraying temperature shall not deviate by more than 8.0% from that ordered by the engineer. The engineer may, at his discretion, conditionally accept application rates falling outside this tolerance at reduced payment in accordance with Table B4108/1.

TABLE B4108/1:PAYMENT REDUCTION FACTORS FOR CONDITIONALLY ACCEPTED PRIME COAT

Deviation specified spray rate at spraying temperature. (%)	Payment reduction factor of tendered rate.
±8,0	1.00
±9,0	0.97
±10,0	0.95
±11,0	0.90
±12,0	0.85
±13,0	0.80

Any deviation outside these limits shall not be paid for, however, the engineer shall have the right to instruct the contractor to make up any deficiency, or blind excessive prime without additional payment. Where so instructed, the material for blinding shall consist of approved, but shall consist of screened 5mm nominal single size aggregate. The use of crusher dust for blinding shall not be permitted. If under-spraying occurs, and it is accepted by the engineer, only the actual quantities applied shall be paid for."

B4109 TESTING

Add the following:

"No payment will be made if this condition is not adhered to. The contractor shall provide, at his cost, representative samples of every batch of prime delivered onto site."

B4110 MEASUREMENT AND PAYMENT

Amend the following payment item to include the sub item as indicated:

Item	Unit
B41.01 Prime coat	
(f) Colprime E or similar approved.....	litre (l)

SECTION 4200: ASPHALT BASE AND SURFACING**B4201 SCOPE****B4202 MATERIALS****(a) Bituminous binders****(iii) Homogeneous modified binders**

Replace the last sentence with:

The modified binder to be used in the 40mm continuously graded asphalt shall be A-E1.

The homogeneous modified binder shall be manufactured according to the guidelines contained in the latest edition of Sabita Technical Guideline TG1: "The use of Modified Bituminous Binders in Road Construction". The base bitumen shall conform to SABS 307, or a blend of SABS 307 grades. The type as well as percentage of modifier is not prescribed, however the contractor shall indicate in the Pricing Schedule what polymer he shall be using. The properties of the homogeneous modified binder shall comply with the relevant requirements for binder class A-E1 as listed in table B4202/12.

TABLE B4202/12: PROPERTIES OF POLYMER-MODIFIED BINDER FOR HOT-MIX ASPHALT

Property	Unit	Test Method	Binder Class
			A-E1
Softening Point ¹	°C	MB-17	55-65
Dynamic Viscosity@165°C	Pa.s	MB-18	≤0.6
Force Ductility @ 5°C	N	EN 13703	Report ³
Elastic Recovery @ 15°C	%	MB-4	>50
Storage Stab @ 160°C)	°C	MB-6	≤5
Flash Point	°C	ASTM: D93	≥230
Complex shear modulus: $G^* \sin \delta$ @10 rad/s	°C	AASHTO:TP5	Report
Creep Stiffness	MPa	AASHTO:TP1	Report
Properties after ageing (RTFOT)			MB-3
Diff in Softening Point	°C	MB-17	-2 to +8
Elastic Recovery @ 15°C	%	MB-4	>40
Mass change	%	MB-3	≤1.0
Torsional Recovery @ 25°C	%	MB-5	Report
Dynamic Viscosity @ 165°C	Pa.s	MB-18	Report ²

Notes:

1. The prescribed test method is based on not using stirrers although it has been reported that the use of stirrers has shown no difference in test results. For referencing purposes no stirrers should be used.
2. No limits are given and the values should be recorded for reporting purposes only as they may be used in future specifications.
3. No values given but the test can be used to rank various binders according to their low temperature cohesion properties.

(b) Aggregates

Add the following paragraph to the introductory description:

“Asphalt mixes shall be manufactured using different individual single size coarse aggregates fractions and crushed fine aggregates blended to conform to the specified grading requirements. The use of natural sands shall only be permitted if approved by the engineer and shall be limited to a maximum of 5% for continuously graded mixes. All aggregate in excess of 4,75 mm shall consist of individual nominal single sized aggregate. For stone mastic asphalt mixes all aggregate fractions in excess of 2,36 shall consist of individual single size fractions. Contractors shall note that commercial suppliers may not be able to supply all the required single size aggregates, in which instance arrangements will have to be made for additional on-site screening. No additional payment shall be made for screening aggregate. The use of crusher type materials shall not be permitted.”

(v) Absorption

Add the following sentence

“In addition, the total binder absorption of the combined coarse and fine aggregate blend shall not exceed 0,5%”

(viii) Grading

Delete the second paragraph commencing with "The target grading..." and add the following paragraphs:

The grading limits for the combined aggregate grading for the asphalt surfacing shall be as specified in table 4202/7: Continuously graded medium grade.

(c) Fillers

Add the following after the last paragraph: “For tender purposes the active filler shall be hydrated lime”.

(h) General

Add the following after the second paragraph:

“Sufficient aggregate for a minimum of 3 days production shall be separately stockpiled and tested for conformance and uniformity prior to use. The test results shall be presented to the engineer”.

B4203 COMPOSITION OF ASPHALT BASE AND SURFACING MIXTURES

In the first paragraph, third last line, after “or active filler content” add:

“or aggregate content”

Replace the fifth paragraph with the following:

“The design of the asphalt mixes shall be in accordance with latest edition of Sabita Manual 35/TRH8: “Design and Use of Asphalt in Road Pavements”. The mix properties and requirements shall be as specified in the project specifications”

The relevant asphalt mix for the surfacing layers shall comply with the requirements in table B4203/2.

Table B4203/2 Asphalt mix requirements: Surfacing

Property	Continuously graded surfacing mixes
Marshall Stability (kN)	8 – 18
Marshall Flow (mm)	2 – 6
Stability /Flow (kN/mm)	> 2,5
VMA (%)	> 15
VFB (%)	65 – 75
Voids in Mix (%)	4 – 6
Indirect tensile strength @ 25°C (kPa)	> 1100
Dynamic Creep Modules @ 40°C (MPa)	> 20
Modified Lottmann (%)	> 80
Air permeability (cm ²)	< 1 x 10 ⁻⁸
Binder film thickness (microns)	5,5 – 8,0
Filler bitumen ratio	1 – 1,5
Immersion index (%)	–
Hamburg Wheel Tracking Test (HWTT) (20 000 repetitions, 95% RICE slabs, Wet, 50°C) (mm)	< 6.0
4 Pt Beam fatigue repetitions to failure at 5° at 200 μ (100% Marshall)	2.4 million

Property	Continuously graded base mixes
Marshall Stability (kn)	8 – 18
Marshall Flow (mm)	2 – 6
Stability /Flow (kN/mm)	>2,5
VMA (%)	> 14
VFB (%)	65 – 75
Air voids (%)	4 – 6
Indirect tensile strength @ 25°C (kPa)	> 1000
Dynamic Creep Modules @ 40°C (MPa)	> 20
Modified Lottmann @ 7% voids (TSR)	> 0,7
Air permeability @ 7% voids (cm ²)	< 1 x 10 ⁻⁸
Binder film thickness (microns)	5,5 – 8,0
Filler bitumen ratio	1 – 1,5
Immersion index (%)	-

B4205 GENERAL LIMITATIONS AND REQUIREMENTS AND THE STOCKPILING OF MIXED MATERIAL

(c) Surface Requirements

(i) Tack Coat

Add the following paragraph:

“Hand spraying shall only be permitted on areas approved by the engineer. The binder distributor shall be capable to apply the binder evenly over the full area. The equipment shall comply with clause 4103. Tack coat shall be applied to all transverse and longitudinal joints by hand utilizing a paint brush.”

B4206 PRODUCING AND TRANSPORTING THE MIXTURE

(b) Production of the mixture

(ii) Using drum-type mixer plants:

Add the following:

“Pre blending of aggregate fractions shall not be permitted and the contractor shall ensure that sufficient cold-feed bins are installed to accommodate each individual aggregate fraction, including the filler.”

(c) Transporting the mixture

Add the following paragraph:

“Special precautions shall be taken by the contractor to ensure that the temperature of the total mass of asphalt does not decrease by more than 10°C from point of dispatch to the point where it is to be paved. The use of the thermal blankets is obligatory.

The contractor shall ensure that trucks used to haul asphalt are not overloaded and the legal axle loads are not exceeded. Before any asphalt can be transported, the contractor must provide the engineer with the certified carrying capacity of each truck intended for the purpose of transporting the mix. The contractor shall provide the engineer with a weighbridge ticket before discharging into the paver's hopper.

Any truck that is overloaded shall not be allowed to discharge its load and shall return to the depot/batching plant for adjustment of the load. In addition a penalty shall be applied for the overload."

Add the following subclause:

“(f) Approval of asphalt mixture

Before any asphalt is placed on the road, the engineer shall verify the mix design. The verification process shall be as follows:

The contractor shall prepare and submit a laboratory design mix with test results at four different bitumen contents. The design mix shall be submitted on the prescribed form D3 of TMH 10: "Instruction for the Completion of As-Built Materials Data Sheets" with all the necessary test results completed. In addition, the proposed asphalt mixture shall be subjected to gyratory testing. All the expenses in preparing and submitting the laboratory design mix shall be to the contractor's cost.

Samples of all aggregate and bitumen shall be submitted with the laboratory design mix to enable the engineer to carry out check design testing as necessary. The above design and aggregate shall be submitted to the engineer at least six weeks before it is intended to commence with any asphalt production.

After the engineer has verified and confirmed that the laboratory design mix conforms to the specification, a plant mix at varying binder contents of approximately 5 to 10 tons each shall be produced. The purpose of the plant mix is for the contractor to prove that the laboratory design mix can be produced successfully. The engineer shall conduct the necessary testing on the plant mix. The plant mix shall not be placed on the road. During the production of the plant mix, the engineer shall be afforded the opportunity to inspect the asphalt plant

After the plant mix has been proven to conform to the specification, permission shall be given for laying a trial section at varying binder contents in accordance with the requirements of section 4211 of the specifications. The engineer may require that the mix be further assessed by means of CSIR Wheel Tracking or MMLS testing, the cost of which will be borne by the Employer. Mass production of asphalt shall only commence after the trial section has been successfully placed, which should be given within a maximum of ten days.

The engineer may instruct the contractor at any time to halt his paving process and to review the whole or part of the above process should a change of aggregate properties occur, the specified asphalt requirements not being met and/or a consistent asphalt mixture not be produced."

B4208 JOINTS

Add the following to this clause:

"Where the difference in level between the new work and the existing road surface exceeds 25mm, joints shall be treated as follows:

Transverse steps at the end of a day's work shall be tapered off at a slope of 1 vertical to 20 horizontal (1:20) to tie in with the existing surface. The tapered section shall be removed before surfacing is recommenced and a joint formed in accordance with clause 4208 of the specification. Longitudinal joints exposed to traffic shall be provided with a taper of compacted

asphalt material over the full length of the exposed joint. The width of the taper shall be at least 5 times the difference in level between the old and new work.

All costs involved in the provision and removal of these temporary ramps shall be deemed to have been included in the rates tendered for the relevant asphalt pay item.”

B4209 PRE-COATED CHIPPINGS FOR ASPHALT SURFACINGS

In the first sentence of the fifth paragraph, delete 6-8 kg/m² and 7-9kg/m² respectively and replace with:

“3-4 kg/m² and 5-6 kg/m²”

In the last sentence of the fifth paragraph, delete “between 0,6 and 1,0 mm” and replace with: “between 0,8 and 1,2mm”

B4211 LAYING OF TRIAL SECTION

Add the following to the end of the first paragraph:

“As the purpose is not to calibrate any equipment, etc., the contractor shall calibrate the equipment and refine the mix design at his own cost.”

B4213 CONSTRUCTION TOLERANCES AND FINISH REQUIREMENTS

(a) Construction tolerances

(v) Surface regularity

Insert the following before the first paragraph:

“For the lanes and surfaced shoulders wider than 2.0m of the through road as well as interchange ramps and cross roads the roughness of the surfacing will be determined by using an inertial laser profilometer capable of producing a Class 1 vertical measurement resolution, and a Class 3 longitudinal sampling distance as defined in ASTM standard (E950-09). Surface shoulders less than 2.0m wide, will be assessed according to measurements obtained from the adjacent slow lane.

The inertial laser profilometer shall be used to record the longitudinal profile in both wheel tracks of each traffic lane or shoulder wider than 2.0m, as determined according to the final line markings that will be applied after construction. Should the two tracks not be measured simultaneously during the same pass, then procedures shall be implemented to ensure that the longitudinal profile data recorded for the two wheel tracks are at the same longitudinal location on the road.

The measured longitudinal profiles will then be processed using the Quarter-Car simulation model with parameter values as defined in ASTM standard (E1170-97) for Ride Meter-Vehicle Mounted. The simulated suspension mentioned will then be linearly accumulated and divided by the length to yield 100m IRI (International Roughness Index) values in units of mm/m or m/km for each wheel track. The last 50 metres, and the joining first 50 metres of adjacent sections will be evaluated as a 100m section in the direction of vehicle travel. For each measured lane the left and the right 100m IRI values from the three runs will then be average to produce the Average IRI as follows:

$$\text{Run1 IRI}_{100\text{m Ave}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Run2 IRI}_{100\text{m Ave}} = (100\text{m IRI}_{\text{Left wheel track}} + 100\text{m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Run3 IRI}_{100\text{m Ave}} = (\text{100m IRI}_{\text{Left wheel track}} + \text{100m IRI}_{\text{Right Wheel track}}) / 2$$

$$\text{Average IRI}_{100\text{m}} = (\text{Run1 IRI}_{100\text{m Ave}} + \text{Run2 IRI}_{100\text{m Ave}} + \text{Run3 IRI}_{100\text{m Ave}}) / 3$$

The Average IRI_{100m} values is then evaluated and judged according to Table B4213/2 to determine whether the 100m section needs corrective work or payment adjustments.

For the Asphalt Base the values in Payment Bracket 6 in Table B4213/2 shall be applied as the payment adjustment factors for the Asphalt Base on the contract or section.

For the Asphalt Surfacing, the applicable Payment Bracket in Table B4213/2 for the measured lanes and shoulders will be determined as follows:

1. Calculate the applicable Target IRI_{100m Ave} for full payment as follows,
Target IRI_{100m Ave} = greater of 1.05 or [IRI_{b Ave} * {1-(NAT/100)}]

Where:

- IRI_{b Ave} = Average IRI_{100m} before the construction of the asphalt surfacing as determined from:
 - i. The Average IRI_{100m} as calculated from the network roughness measurements performed by Employer not more than 12 months prior to commencement of the contract, or
 - ii. The Average IRI_{100m} as calculated from the measurements performed as part of the assessment of the new constructed base (refer B3405(f) for granular base and B4213(a) for asphalt base).
 - NAT = Total New Asphalt Surface Thickness (measured in mm) applied over a section as part of this contract. For example, should 40mm AC be applied followed by 18mm UTFc, then NAT = 58mm.
2. Using the Target IRI_{100m Ave} calculated under 1 above, find the matching Target IRI_{100m Ave} range in the first column of Table B4213/2 into which the value fits. Then read horizontally to the relevant Full Payment Bracket column in which the unit value (1.000) appears. The values in this column shall then be applied as the payment adjustment factors for the contract or section. For example should the Target IRI_{100m Ave} be 1.33, then the Full Payment Bracket will be No 4.
Should the Total New Asphalt Thickness (NAT) vary over the contract length, then a Payment Bracket will need to be calculated for each of these uniform NAT sections.,

TABLE B4213/2: PAYMENT ADJUSTMENT FACTORS FOR ASPHALT BASES AND ASPHALT SURFACINGS

Target IRI _{100m} Ave (m/km)	PAYMENT ADJUSTMENT FACTORS					
	Full Payment Bracket 1	Full Payment Bracket 2	Full Payment Bracket 3	Full Payment Bracket 4	Full Payment Bracket 5	Full Payment Bracket 6
< 0.80	1.050	1.050	1.050	1.050	1.050	1.050
0.81 to 0.90	1.025	1.050	1.050	1.050	1.050	1.050
0.91 to 1.00	1.010	1.025	1.050	1.050	1.050	1.050
1.01 to 1.10	1.000	1.010	1.025	1.050	1.050	1.050
1.11 to 1.20	0,990	1.000	1.010	1.025	1.050	1.050
1.21 to 1.30	0,975	0,990	1.000	1.010	1.025	1.025
1.31 to 1.40	0,955	0,975	0,990	1.000	1.010	1.010
1.41 to 1.50	0,930	0,955	0,975	0,990	1.000	1.000
1.51 to 1.60	0,900	0,930	0,955	0,975	0,990	0,990
1.61 to 1.70	0.865	0,900	0,930	0,955	0,975	0,975
1.71 to 1.80	Reject	0.865	0,900	0,930	0,955	0,955
1.81 to 1.90	Reject	Reject	0.865	0,900	0,930	0,930
1.91 to 2.00	Reject	Reject	Reject	0.865	0,900	0,900
2.01 to 2.10	Reject	Reject	Reject	Reject	0.865	0.865
2.11 to 2.20	Reject	Reject	Reject	Reject	Reject	Reject
2.21 to 2.30	Reject	Reject	Reject	Reject	Reject	Reject
2.31 to 2.40	Reject	Reject	Reject	Reject	Reject	Reject
>2.41	Reject	Reject	Reject	Reject	Reject	Reject

Any adjustment in the payment for asphalt base or asphalt surfacing will be made by multiplying the full payment value for each 100m section, for payment items B42.11 by the payment adjustment factor derived from Table B4213/2. The payment adjustment shall apply to the total asphalt layer width placed during a single pass by the paver over the 100m sections in question.

Surfaced shoulders less than 2m wide will be assumed to have the same roughness measurements as the adjacent lane and the quantity of material in the shoulder shall be added to the quantity of material of the adjacent lane for determination of the payment adjustment factor.

On sections where the Average IRI_{100m} is worse than the cut-off value listed in Table B4213/2 the section is rejected and corrective work will be necessary.

Any corrective work required shall be made by the removal, through milling of the total asphalt layer width placed during a single pass of the paver over the 100m section in question, followed by reinstatement. The contractor shall submit his method statement for any corrective work to the engineer for approval, prior to commencing with any corrective work. Corrective work shall be done at the contractor's expense and shall be completed prior to determining pavement thickness. After completion of the corrective work, the 100m sections shall be re-evaluated according to the abovementioned procedure.

The longitudinal profile and the 100m International Roughness Index (IRI) values shall be determined using a profilometer furnished and operated by the contractor or on his behalf in the presence of the engineer. Prior to using the inertial laser profilometer it shall have successfully completed a validation trial against the Instrument of Reference (Face Dipstick®) used by the Employer.

As an absolute minimum, measurements shall be provided to the engineer after 10%, 50% and 100% of the surfacing area of the project has been completed. The contractor will be paid for these measurements under payment item B81.04. No additional payment will be made to the contractor for additional measurement and analysis of profiles.

On all road sections and in areas where the use of a profilometer is not possible, the rolling straight-edge specification as indicated below shall apply.”

B4214 QUALITY OF MATERIAL AND WORKMANSHIP

(a) Coring of asphalt layers

Add the following:

“A suitable coring machine shall be available on a daily basis when asphalt paving is taking place. Cores shall only be drilled, when the road temperature is 20°C or less. Core holes shall be filled with hot mix asphalt and compacted, all within 24 hours of the core being drilled. Coring shall be carried out within 48 hours after the paving has been completed and supplied to the engineer. The test results of cores shall be submitted to the engineer within 24 hours after coring.”

(c) Routine inspection and tests

Add the following paragraph:

"The contractor shall keep accurate records of:

- (i) The position where every truckload of asphalt is paved (chainage, lane, time and date).
- (ii) The temperatures of the asphalt in the trucks both at the mixing plant and at the paving equipment immediately prior to discharging the load.
- (iii) The truck and load number from which control samples are taken. All samples taken shall be appropriately numbered."

Add the following subclause:

(a) Special tests

n-Heptane-Xylene Equivalent (Spot test) (AASHTO-T102)

If the engineer suspects that bitumen or asphalt has been overheated, he may order that the bitumen, or the bitumen recovered from the asphalt, be subjected to the Spot Test. Recovery of binder for use in the Spot Test shall be carried out according to an approved method.

Any bitumen having an n-Heptane-Xylene equivalent in excess of 36, or in excess of the manufacturers test result on the dispatched stock, shall be considered to have been overheated and shall be deemed to be rejected unless proven otherwise."

B4215 MEASUREMENT AND PAYMENT

B42.02 Asphalt surfacing

Amend Subitem (a) as follows:

"Item	Unit
(a)	Continuously graded medium grading ton (t)

The unit of measure for subitem (a) shall be the ton of asphalt overlay placed to the nominal thickness specified and measured according to certified weighbridge tickets issued in respect of the mixture used.

No payment shall be made for excess width and wastage of asphalt, and the mass of such excess or wasted material shall be deducted from the recorded delivery for payment purposes. No payment shall be made for asphalt in excess of the mean spread rate(s), which shall be determined as follows:

$$S = \frac{1000}{AXB} \quad \text{m}^2/\text{ton where,}$$

$$S = \text{Mean spread rate in m}^2/\text{ton}$$

$$A = \text{Average bulk relative density achieved on the road in ton/m}^3$$

$$B = \text{(specified asphalt thickness in mm) + 5mm}"$$

B42.07 Trial sections

Amend the unit of measurement from m^2 to 'ton (t)' and:

'The unit of measurement shall be the ton of asphalt trial section constructed to the nominal thickness indicated, and measured according to certified weighbridge tickets issued in respect of the mixture used.'

B42.08 100mm cores in asphalt paving

Amend the 1st sentence by adding the following after the word “drilled”:
“irrespective of depth of core.”

Add the following payment items:

Item	Unit
B42.21	Aggregate variations ton (t)

The unit of measurement in respect of increases or decreases in the aggregate content from that specified in the nominal mix shall be the ton.

Payment for variations shall be made as specified for clause 1213.”

Item	Unit
B42.22	Penalty for overloading ton (t)

The unit of measurement for the calculation of the penalty shall be the ton of mix transported in excess of the legal load. The rate applied shall be twice the contractor’s tendered rate for placing the mix under B42.02.

For the purposes of the calculation, the so called 5% grace shall not be used. The following example is provided:

Tare Weight of vehicle certified by RTI weighbridge	=	6 tons
Maximum carrying capacity certified by RTI weighbridge	=	8 tons
Gross vehicle mass	=	14 tons
Actual Load (Weighbridge ticket)	=	14.6tons
Overload	=	0.6 tons
Contractors rate tendered under item B42.01	=	R350/ton
Penalty	=	2 x R350/ton x 0.6 tons
	=	R 420.00”

Item	Unit
B42.23	Initial design testing costs Lump Sum

The unit of measurement shall be the lump sum cost tendered for the testing of the design criteria in accordance with the Table B4203/2 on the plant/production mixed mix and binder combinations from the designated asphalt supplier.

The tendered rate shall include full compensation for all related testing costs, including material (production mix runs, modifiers etc) costs, transport/courier costs and specialist lab testing costs.”

SECTION B4600: BITUMINOUS SINGLE SEAL WITH SLURRY (CAPE SEAL)**B4603 CONSTRUCTION BEFORE SLURRY APPLICATION**

(a) Application of tack coat and aggregates

Add the following to Table 4603/1:

Nominal size aggregate (mm)	Binder litre bitumen/m²	Aggregate m²/m²
9,5	0,6	120

B4605 MEASUREMENT AND PAYMENT*Amend the description of item 46.02 and renumber as follows:*

Item	Unit
B46.02 Bituminous single seal with 9,5mm aggregate and slurry (indicate type and grade of binder and grade of aggregate)	square metre (m ²)

SECTION B5600: ROAD SIGNS**B5601 SCOPE**

Replace “South African Road Traffic Signs Manual” in the second paragraph with:

“SADC Road Traffic Signs Manual”

B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS**(a) Road signboards**

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 100mm x 150mm 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.”

(ii) Steel profile road signboards

Add the following:

“Chromadek section shall be assembled in accordance with the details of Standard Plans SP-B-12-Sheets 4 and 5 and SP-B-4-Sheets 33E and 34E.

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 practical visual match of the specified colour.”

B5604 ROAD SIGN FACES AND PAINTING

Add the following sub-clause:

“(e) Application of retro-reflective material

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 for aluminium section in Clause 5603(d) of the Standard Specification, and of Clause B5603(a)(ii) of this Project Specification.”

B5605 STORAGE AND HANDLING

Add the following:

“The following shall not be allowed on the sign face:

- Drilling of holes, except for the fastening of overlays
- Application of any form of adhesive
- Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material.

- Covering the sign face with an impermeable material that does not allow free circulation of air.”

B5606 ERECTING ROAD SIGNS

(c) Erection

Add the following:

“After erection the signboard shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material’s manufacturer.

All vegetation obstructing the new or replaced sign board shall be removed and disposed of as instructed by the engineer.”

B5608 DISMANTLING, STORING AND RE-ERECTING EXISTING ROAD SIGNS

Add the following:

“Existing overhead and ground mounted road signs that are being replaced by new signs shall be dismantled and disposed of by the Contractor. Where possible the dismantling of the signs shall not be before the replacement sign is erected and displayed. Where dismantling of the sign is required before erection of the replacement sign, the dismantling shall not take place until immediately before work is to commence on the replacement, and the replacement shall be completed and the new sign displayed as soon as possible thereafter (within 72 hours).

Dismantling shall include sign panels and ground mounted sign supports.

Ground mounted sign supports shall be cut off just below ground level. Material excavated for removal of buried poles shall be replaced, and any depression made good using excess material from excavation for new signs.

Pay items are provided in the Pricing Schedule. Payment will differentiate between different types of sign panels.”

B5609 MEASUREMENT AND PAYMENT

Add the following payment item:

“Item	Unit
B56.10 Danger plates at culverts/structures	
(a) Type A at culverts (600mm x 150mm)	number (No)
(b) Type B at guardrails (800mm x 200mm)	number (No)
(c) Type C at bridges (1200mm x 300mm)	number (No)

The unit of measurement shall be the number of danger plates provided and erected in accordance with the drawings.

The tendered rate shall include full compensation for all labour and material, painting, posts, excavation, backfilling with soil etc., as may be necessary for completing the work in accordance with the details shown on the drawings.

SECTION 5700: ROAD MARKINGS**B5701 SCOPE**

Replace South African Road Traffic Signs Manual in the second paragraph with:

“SADC Road Traffic Signs Manual”

B5702 MATERIALS

Insert the following before subclause (a) Paint:

“The selection of appropriate road marking materials for permanent road markings to ensure conformance with the requirements of this specification rests with the Contractor. Road marking materials for temporary road markings as clarified in SANS 731-1 shall be equal to or more durable than road marking paint specified in subclause B5702(a)(i) and (ii), provided it meets the specified initial performance criteria.”

(a) Paint

- (i) Road-marking paint

Add the following:

“The commercial product supplied by the contractor shall be subject to the approval by the engineer and the submission of a certificate of the SABS permitting the manufacturer to apply the SABS standardising mark to the supplied product.”

- (ii) Retro-reflective road-marking paint

Replace “CKS192” in the first paragraph with “SABS EN 1423 for medium grading glass beads”.

When measured in accordance with SABS Method 1261-1998 within a period of two weeks

(± 1 week) after application, the coefficient of retro-reflected luminance, RL, of temporary road markings shall be at least 150 mcd/m².lx for white markings and 100 mcd/m².lx for yellow markings.

The product supplied for permanent road markings shall be subject to the approval by the engineer, who may request the contractor to provide sufficient supporting evidence to compare the durability of the proposed product with that of hot-melt thermoplastic material.

B5704 MECHANICAL EQUIPMENT FOR PAINTING

Add the following:

"The machine shall always operate in the same direction of the traffic flow when applying lane markings."

B5705 SURFACE PREPARATION

Add the following at the end of the second paragraph:

“The onus is on the contractor to ensure that the surface on which the road markings are to be applied is sufficiently clean and dry to ensure that the quality of the road markings will not be adversely affected. The contractor is also responsible for protecting road studs from being painted over, and the subsequent cleaning thereof if such over-painting did occur. (The

cleaning of the road studs shall be done in such a manner that the functionality of the road studs will not be detrimentally affected by the cleaning agent.)”

B5706 SETTING OUT THE ROAD MARKINGS

Add the following:

“Where road markings are to be replaced on seal, it is essential that all existing barrier lines and other road marking lines be accurately referenced before commencement. The position of barrier lines shall be re-assessed on site by the engineer before the contractor commences with the road marking. No separate payment will be made for referencing the existing road markings and full compensation shall be included in the rate tendered for item B57.06.”

B5707 APPLYING THE PAINT

Replace the last paragraph with the following:

The Contractor’s establishment on site and general obligation shall be deemed to fully include the establishment of the road-marking team, irrespective of the number of times the road-marking team is required to be on site or is required to move within the site, other than those payments specifically allowed for in payment item B13.01(e).”

Replace the second last paragraph with the following:

“Road marking materials shall be applied at application rates which would suit the traffic conditions in such a way that the functional life of the temporary road markings would exceed six months, whilst the expected functional life of the permanent road markings should exceed 36 months.”

B5714 MEASUREMENT AND PAYMENT

Item	Unit
B57.05 Roadstuds	number (No)

Add the following after the first sentence of the second paragraph:

“No additional payment will be made should temporary or permanent roadstuds be replaced if lost or broken during the construction period or during the Defects Notification period.”

Item	Unit
B57.06 Setting out and pre-marking the lines (excluding traffic island markings, lettering and symbols)	kilometre (km)

Add the following:

“Referencing of barrier lines and other road marking lines and other operations, shall be included in the tendered rate for setting out and pre-marking.”

Add the following paragraph:

“Island markings shall specifically exclude the length of line which outlines or borders the extent of the diagonal or chevron bars forming the island marking. Island markings shall also exclude longitudinal lines of a continuous nature.”

SECTION 5900: FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

B5901 SCOPE

In the first line of the second paragraph, insert the following after 'this section'

“...distinguishes between new construction and renewal construction. When construction is new, as in the case of new alignments for example, then this section.....”

B5902 FINISHING THE ROAD AND ROAD RESERVE

Retain the existing paragraphs as new subclause:

“(a) New Construction”

Replace the sixth paragraph with:

“All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”

Add the following:

“(b) Renewal Construction

After completing construction work within the site, the contractor shall ensure that all construction generated or related material that may have been swept, windrowed, stockpiled, stored or spread beyond the road surface is removed. This shall be done before any other rehabilitation work is undertaken, including shaping, top soiling and grassing. Should, during the removal of construction generated or related material, existing vegetation or topsoil be disturbed or destroyed, the contractor shall, at his own cost, re-instate the road reserve to its original state. This shall include ripping, should the construction material have compacted the existing surface.

Culvert inlets and outlets, culvert barrels, and open drains shall be cleared of debris, soil, silt and other material generated from the construction activities.

The surfacing shall be cleared of all dirt, mud and foreign objects. Dragging, pushing or scraping material across the finished surfacing shall not be permitted.

All junctions, intersections, islands, kerbing and other elements making up the completed works shall be neatly finished off.

The contractor shall ensure that all undesirable plants have been removed from the road reserve and borrow pit areas.

All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”

SECTION 8100: TESTING MATERIALS AND WORKMANSHIP**B8105 TESTING OF AGGREGATES**

Add the following sub-clause:

“(g) Determination of Ethylene Glycol Durability Index

The Ethylene Glycol Durability Index shall be determined as follows:

(i) Apparatus

Suitable pans or basins

Ethylene Glycol solution

Stirring rod

(ii) Method

Obtain three or more representative samples from the source to be evaluated.

If not already crushed, crush the material in order to obtain sufficient minus 19mm plus 13mm sized aggregate in order to totally cover the bottom of the basin or pan with a single layer of stone. Add sufficient ethylene glycol to each basin ensuring that every aggregate particle is completely submerged.

After soaking for 24 hours, gently stir the aggregate and allow to settle. Observe and record the response of the aggregate to the ethylene glycol according to the criteria listed in (iii) below. Continue the above cycle at intervals of 24 hours for a further 4 days, in each case recording the observed response. After 5 days allow the samples to remain submerged in the solution and observe and record the disintegration response after a total period of 15, 30 and 60 days have elapsed.

(iii) Classification of response

After each cycle, classify and record the response of the aggregate as follows:

DISINTEGRATION CLASS

Class 1: No obvious effects, or only very minor spalling of sand sized particles or very small flakes.

Class 2: Splitting of rock, accompanied by any other disintegrative effects.

Class 3: Fracturing (spheroidal and/ or internal) without extensive spalling or distortion.

Class 4: Fracturing (spheroidal and/or internal) with extensive spalling or distortion.

Class 5: Complete disintegration.

TIME CLASS

The time factor in the above disintegrative process is classified according to the time taken for the most serious effect of the expansive stresses to occur i.e.

Class 4: 0 - 5 days

Class 3: 6 - 15 days

Class 2: 16 - 30 days

Class 1: 31 - 60 days

Class 0: Over 60 days

(iv) Determination of Glycol Durability Index

The Ethylene Durability Index is determined by adding the class number as assigned for the specific disintegrative response observed to the class number as assigned for the period for this response to occur. A durability index ranging from 1 (no response) to 9 (rapid and complete disintegration) is thus determined.”

B8110 TESTS RELATING TO CHEMICAL STABILISATION

Add the following sub-clause:

“(d) The Wet-Dry Durability Test for cement and/or lime-treated materials using the hand-brush method (SANRAL METHOD)”

1. Scope

This method covers the procedure for determining the soil-cement losses obtained by repeated wetting, drying and hand brushing of hardened soil-cement specimens (see 5.4).

2. Apparatus

2.1 A moisture curing room capable of maintaining a relative humidity of 95 to 100 percent and a temperature of 22 to 25°C, or suitable plastic bags capable of holding specimens and carriers in an air tight condition in a water bath as described in 2.2 below.

2.2 A suitable water bath with thermostatic control capable of maintaining a temperature of 22 to 25°C.

2.3 A balance to weigh up to 10kg, accurate to 0.5g.

2.4 A drying oven capable of maintaining temperatures of $71 \pm 3^\circ\text{C}$ and $110 \pm 5^\circ\text{C}$.

2.5 A wire scratch brush made of 50mm by 1.6mm flat 26 gauge wire bristles assembled in 50 groups of 10 bristles and mounted to form five longitudinal rows and 10 transverse rows on a 200 by 65mm wooden block.

3. Method

3.1 *Preparation of specimens*

Prepare specimens in accordance with the procedure described in the Appendix to method A19 in the TMH 1 with the following exceptions:

Use the material passing the 37.5mm sieve and discard the material remaining on the sieve.

Use the apparatus and compaction method as described in TMH 1 method A7 (100% Modified AASHTO at predetermined OMC).

3.2 *Curing of specimens*

Rapid cure the specimens (see 5.6). Alternatively, and where instructed by the engineer, the specimens may be cured for seven days at a relative humidity of 95% to 100% and a temperature of 22°C to 25°C in a suitable curing room or in plastic bags and a suitable water bath.

3.3 *Wetting, drying and brushing*

After curing, remove the specimens from the curing room or plastic bags, allow to cool and submerge them in water at room temperature for a period of five hours. Remove the specimens from the water and place them in an oven at 71°C for 42 hours.

Remove the specimens from the oven. Give each specimen two firm strokes over the full surface area with the wire scratch brush. The brush must be held parallel to the long axis of the specimen or parallel to the ends as required to cover all areas of the specimen. Apply these strokes to the full height and width of each specimen with a firm stroke corresponding to approximately 13.5 kN force (see note 5.5).

3.4 *Determination of soil-cement losses*

After 12 cycles, dry the specimens to constant mass at 100°C and determine the oven dry mass of the specimens. The data collected will permit the calculation of the soil-cement losses of the specimens after the prescribed 12-cycle test.

4. Calculations

4.1 Calculate the soil-cement loss of the specimens as a percentage of the original oven-dry mass of the specimens as follows:

$$L = \frac{W - N}{W} \times 100$$

Where

L = soil-cement loss (%)

W = original calculated oven-dry mass (g) (calculated according to paragraph 3.5 in the Appendix to method A19 in the TMH 1).

N = final oven-dry mass (g).

4.2 The percentage loss shall be calculated and reported to the nearest 0.1 percent. The results are normally required for stabilisation design purposes and should be reported graphically against relevant cement contents.

5. Notes

5.1 Mass determinations of the specimens before and after brushing are usually made at the end of each cycle during research or special investigations.

5.2 Care is required when assessing results obtained on very coarse graded materials as "plucking" out of the aggregate pieces during the brushing process could result in very high losses of material, which may however not be truly indicative of its potential erosion resistance.

5.3 If it not possible to run the cycle continuously because of Sundays or holidays, or for any other reason, the specimens should be held in the oven during the layover period.

5.4 The test was originally developed to determine wet-dry durability of cement-treated material. It can, however, be used with equal success on material tested with other chemical stabilizers, for example lime, or mixes of lime and milled blast furnace slag, or cement and milled blast furnace slag.

5.5 The pressure of the brushing stroke is determined as follows:

Clamp a specimen in a vertical position on the edge of a platform scale and zero the scale. Apply vertical brushing strokes to the specimen and note the force necessary to register approximately 1.36kg.

5.6 Rapid curing:

Seal each specimen airtight in a suitable container or plastic bag. Carefully place the briquettes on suitable holders or in pans and place in the oven at the relevant temperature and period given below:

Stabilizing agent	Temp (°C)	Time (Hours)
Cement	70 – 75	24 ±0.5
PBFC	70 - 75	24 ±0.5
Lime	60 ±2	45 ±1
Lime / FA	60 ±2	45 ±1
Lime / MBFS	60 ±2	45 ±1

B8117 FIELD BINDER TRANSVERSE DISTRIBUTION ("BAKKIE") TEST

1. SCOPE

This method sets out the procedure for the simple field determination of the transverse distribution of a binder distributor. Certain statistical criteria are applied to the results to determine conformance with requirements.

2. DEFINITION

The purpose of the test is to determine conformance of the transverse distribution of the spray bar, as measured by direct discharge from sets of 3 nozzles, using the project binder.

3. APPARATUS

3.1 Steel troughs

Steel troughs fitted with handles and manufactured from 3 mm mild steel plate, conforming to the following or similar dimensions:

Width	-	265 mm
Depth	-	405 mm
Height	-	300 mm

A total of 14 troughs are required for a 4, 2 m wide spray bar. Each trough must be clearly numbered on its side.

3.2 Balance

A balance capable of weighing up to 50 kg to an accuracy of 20 g.

3.3 Personal protective clothing

The appropriate safety gear must be worn when performing this test and should include a pair of asbestos gloves, face shield and approved overalls.

3.4 Cleaning fluid

Diesel or other suitable fluid.

4. PREPARATION OF THE BINDER DISTRIBUTOR

Ensure that all the binder strainers on the sprayer have been cleaned.

Preheat the binder in the distributor tank to within ± 5 °C of the required spray temperature.

Circulate the binder through the spray bar for at least 15 minutes.

4.1 Position the spray bar over a full-length drip tray. A short preliminary spray is made to ensure that all the nozzles are functioning and that the machine is in normal working condition. Suck back the binder from the drip tray into the distributor tank on completion of test spray.

4.2 If necessary, correct any malfunctioning of the spray bar.

5. METHOD

5.1 Ensure that all troughs are clean and free of any water or other materials.

5.2 Place the pre-weighed steel troughs described in 3.1 under the spray bar in such a manner that the discharge of each set of three nozzles are collected in one trough. Ensure that the troughs are placed in numerical order.

5.3 Adjust the spray bar height to ensure that the nozzles are below the sides of the trough.

5.4 Increase the bitumen pump speed to yield the desired triple spray overlap in accordance to the type of nozzles and type of binder being used. Typically this could vary between 12 and 20 litres per minute for conventional binders.

5.5 Open the nozzles and spray sufficient binder to fill the troughs without risking spillage during handling.

5.6 Weigh the troughs to determine the mass of binder sprayed.

5.7 On completion of the weighing and before the binder cools suck back the binder into the distributor tank.

5.8 Only clean the troughs with a suitable cleaning fluid once they have cooled down to room temperature.

5.9 Store used cleaning fluid in a suitable container for re-use.

6. CALCULATION AND REPORT

6.1 Determine the net mass of binder in each trough to the nearest 20 grams.

Net mass binder = $(M_1, M_2, M_3 \dots M_n)$.

6.2 Calculate the average mass of the binder collected in all the troughs.

$$M_{ave} = \sum (M_1 \dots M_n) / n$$

where n = number of troughs

- 6.3 Calculate the deviation from the average mass for every trough and express the value as a percentage.

$$\% \text{ Deviation} = (M_{ave} - M_i) / M_{ave} \times 100$$

- 6.4 If the transverse distribution is out of specification, make the necessary adjustments to the spray bar and repeat the test.
- 6.5 Report results on a suitable report sheet.
- 6.6 Update the 'bakkie' test record with the relevant information for the distributor.

7. ACCURACY

Due to the varying nature of the different types of binders, cognisance must be taken of the respective binder's viscosity at spray temperature when establishing achievable tolerances, namely:

Conventional binders	40 – 100 CPs
Polymer modified binders	120 – 200 CPs
Bitumen rubber	2,000 – 3,000 CPs

SECTION B8200: QUALITY CONTROL (SCHEME 1)

B8206 JUDGEMENT PLAN B

Notes (Table 8206/3)

(1) Asphalt base or surfacing: Specification limits for-

Add to (a) Density, the following:

“L's = 96% of theoretical maximum density for surfacing at intersections of P122/1.”

(c) Voids

Delete and replace the contents of this subitem with the following:

“L_s = specified values -1,0% points

L'_s = specified values +1,0% points”

PROJECT SPECIFICATIONS

PART C EMPLOYMENT OF LOCAL LABOUR

CONTENTS

C 01	SCOPE
C 02	INTERPRETATIONS
C 03	PERMITTED SOURCES OF TEMPORARY WORKERS
C 04	EMPLOYMENT RECORDS TO BE PROVIDED
C 05	VARIATIONS IN WORKER PRODUCTION RATES
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C 09	LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
C 10	THE SUBCONTRACTORS' WORKFORCES
C 11	PROJECT LIASON OFFICER
C.12	MEASUREMENT AND PAYMENT

C 01 SCOPE

This Specification covers the provisions and requirements relating to the employment of Local Labour to serve the employer's objectives of employment creation

C 02 INTERPRETATIONS

C 02.01 Definitions and abbreviations

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

- (a) "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.
- (b) "Project Steering Committee (PSC)" 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.
- (c) "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.

- (d) "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.
- (e) "Workforce" means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors.
- (f) "Community Liaison Officer (CLO)" means a representative from the Local Labour Workers appointed by the Employer's Social Facilitator to act on their behalf and through whom all matters pertaining to Local Labourers can be channelized.
- (g) "Local Labour" or "Local Labourers" means workers that conform to the requirements stated in clause C3.3, and in in Part C of the Project Specifications.
- (h) "Social Facilitator" means a representative of the Employer responsible for all aspects for social facilitation including:
- i) Liaison with Ward Councillors and the community.
 - ii) Formation and management of a Project Steering Committee (PSC)
 - iii) Identification of a suitable Community Liaison officer (CLO)
 - iv) Identification of the Local Labour beneficiaries
 - v) Compiling lists of local QSE's and EME's
 - vi) Receipt of CLO / Contractor's monthly reports

C 02.02 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.

C 03 REQUIREMENTS FOR LOCAL LABOUR

Local labour shall be Workers who are :

- Appointed by the contractor after the contract commencement date; and
- Who reside in local communities, which means within the boundaries the municipal wards that are immediately adjacent to the site; and
- Who are identified by the local councillors and the Community liaison officer; and
- Who are unemployed at the time of being offered employment by the contractor; and
- Are identifiable by wearing specified orange coloured clothing with distinct branding; and
- Are registered with the UIF.

The minimum percentages required for the employment of Local Labour are stated in clause C3.3 of the Scope of Works in the contract.

C 04 EMPLOYMENT RECORDS TO BE PROVIDED

- (a) The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at fortnightly intervals, from the commencement date, with interim records substantiating the actual statistics related to Labour employment, that shall 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 and in accordance with reporting templates to be discussed with the contractor. The Contractor will need certify the correctness and sign off these records prior to submission.
- (b) 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.

C 05 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 tender.

C 06 TRAINING OF THE TEMPORARY WORKFORCE

- (a) All Local Labour are to be provided with compulsory training in accordance with the provisions of Part D.
- (b) The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such compulsory training and shall comply fully with the requirements of Part D.
- (c) The provision of structured training as described in Part D 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 D, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

C 07 RECRUITMENT AND SELECTION PROCEDURES

C 07.01 The Contractor shall be fully responsible for the selection of workers to constitute the workforce.

C 07.02 The Contractor shall advise the Engineer in writing of the numbers of each category of Local Labour 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).

C 07.03 The CLO (see C11 hereafter) shall, take all necessary actions to advertise within the local communities.

C 07.04 The Contractor shall, in conjunction with the Social Facilitator, record in writing, the details of all persons applying for employment, including *inter alia*:

- (a) Name, address, age and sex
- (b) Marital status and number of dependants
- (c) Qualifications and previous work experience (whether substantiated or not)
- (d) Period since last economically active
- (e) Preference for type of work or task.

C 07.05 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:

- (a) No potential Local Labourer 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 -
 - (i) all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or
 - (ii) 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.
- (b) Preference shall be given to the unemployed and single heads of households.
- (c) 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.
- (d) The selection process shall not be prejudicial to youth and women.

C 07.06 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.

C 07.07 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.

C 08 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

- C 08.01** All Local Labour engaged in accordance with the provisions of Clause C3.3 of the Scope of Works and Part C of the Project 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 Local Labour, and subject only to the provisions of this Contract, shall not employ any worker on terms and conditions which are less favourable to the worker or inconsistent with the standards, norms and minimum rates of remuneration generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.
- C 08.02** The Contractor shall pay to all Local Labour nothing less than the minimum rate of remuneration as specified in C08.01 above and no variation in payment shall be made for labour intensive work tasks identified by the contractor.

C 09 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES

- C 09.01** 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.
- C 09.02** 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.
- C 09.03** In the event of any Local Labourer 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 in terms of Subclause C 09.02 above, by a Local Labourer and one member of the Project Committee, which persons shall be nominated by the worker.
- C 09.04** In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures in accordance with Sub clauses C 09.02 and C 09.03, 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.

C 10 THE SUBCONTRACTORS' WORKFORCES

- C 10.01** The provisions of this Part C 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.

C 10.02 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.

C 11 COMMUNITY LIAISON OFFICER (CLO)

The contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the Social Facilitator and the engineer. . An employment contract must be signed between the contractor and CLO from project initiation to project end. The contractor shall direct all his liaison efforts with the local communities through the appointed officer. The contractor shall, however, accept the appointed as part of his management personnel.

The Contractor will provide the CLO with additional cell phone air time of R300 per month.

C 11.01 Duties of the Community Liaison Officer

The Community Liaison Officer's duties will be:

- (i) To be available on site daily between the contractor's normal working hours and at other times as the need arises.
- (ii) To determine, in consultation with the contractor, the needs for relevant skills training. He will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.
- (iii) To communicate daily with the contractor and the engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- (iv) To facilitate the recruitment of suitable temporary labour.
- (v) To attend all meetings in which the community and/or labour are present or are required to be represented.
- (vii) To inform labourers of their conditions of employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- (viii) To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- (ix) To keep a daily written record of his interviews and community liaison.

- (x) To attend monthly site meetings to report on labour matters.
- (xi) All such other duties as agreed upon between all parties concerned.
- (xii) To submit monthly returns regarding community liaison in a format prescribed by the engineer.

C 11.02 Payment for the community liaison officer

A special pay item is incorporated in section 1200 of the bill of quantities relating to payment of the liaison officer on a prime cost sum basis. This payment shall only be made for the period for which the duties of the liaison officer are required and not necessarily for the full duration of the contract. The remuneration of the CLO shall be determined jointly by the contractor, engineer and the social facilitator.

C 11.03 Period of employment of the CLO

The period of employment of the CLO shall be as decided upon jointly by the contractor, engineer and the social facilitator.

C 12 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 Project Specifications shall, except to the extent provided for as relevant, be deemed to be included in the rates tendered for in Section 1300 of the Bill of Quantities.

Item		Unit
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C12.01 Community Liaison:

- (a) Community Liaison Officer(s).....Prime cost (PC) sum

Payment under the Prime cost (PC) sum provided in subitem C12.01(a) and (b) to cover the employment, remuneration and the R300 per month cell phone allowance of the Community Liaison Officer, shall be effected in accordance with the provisions of Clause 6.6 of the General Conditions of Contract.

No separate payment will be made for the contractor's overheads, handling costs, or office space, transport and any other costs associated with the employment and accommodation of the CLO Provision for such costs shall be made, as part of the contractor's general obligations, under item B13.01 in the Bill of Quantities.

PROJECT SPECIFICATIONS**PART D: PROVISION OF COMPULSORY TRAINING****CONTENTS**

D 01	SCOPE
D 02	INTERPRETATIONS
D 03	ENGINEERING SKILLS TRAINING
D 04	GENERIC TRAINING
D 05	ENTREPRENEURIAL SKILLS TRAINING
D 06	MEASUREMENT AND PAYMENT

D 01 SCOPE

This specification covers the requirements for the provision of training to Local Labour (as defined in Part C of the Project Specification) which includes Local Labour employed EME and QSE sub-contractors, as well as other unskilled and semi-skilled employees approved by the engineer.

D 02 INTERPRETATIONS**D 02.1 Supporting documents**

The tender rules, conditions of contract, standard, supplementary and specific specifications and project specifications and drawings shall inter alia be read in conjunction with this specification.

D 02.2 Application

The provisions of this specification shall apply to Local Labourers, who are engaged on the execution of the works.

D 03 ENGINEERING SKILLS TRAINING FOR THE CONTRACTOR'S AND SUB-CONTRACTOR'S LOCAL LABOUR

D 03.1 The Contractor shall, from the commencement of the contract, implement a compulsory structured training programme comprising of training delivered by a selected subcontractor training provider and, in which the various skills required for the execution and completion of the works are imparted to the Contractor's and his sub contractor's Local Labour workers, in a programmed and progressive manner. Workers shall be trained progressively throughout the duration of the contract in the various stages of a particular type of work.

- D 03.2** 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 Training Authority (CETA) or other institutions 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.
- D 03.3** The Contractor shall be responsible for the provision of the necessary items for the delivery of the specified skills training programme, including the following:
- (a) Sufficient skilled, competent and accredited trainers to deliver the training programme to workers in accordance with the training programme
 - (b) A suitably furnished venue
 - (c) Transport of the workers as required
 - (d) Tools, equipment, and teaching aids
 - (e) Stationery and all other necessary materials.
- D 03.4** Selection of candidates
- (a) Members of the Local Labour workforce will be selected by the Engineer, assisted by the Contractor and the CLO, to receive specific training as approved by the Engineer.
 - (b) 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
 - iv. All Local Labour should receive training during the Contract Period.
- D 03.5** Duration of training
- (a) The Contractor shall allow in his programme for the Local Labourers to be engaged in the specified training modules over the duration of the Contract Period.
 - (b) 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.
- D 03.6** Engineering skills training shall be arranged in a manner which will allow theoretical training to be followed promptly by practical training with actual appropriate and relevant work on the site,
- D 03.7** The selected subcontractor's 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 to suit changing conditions on site and all changes in the Contractor's programme of work.

D 03.8 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. The format of such records shall be subject to the engineer's approval.

D 03.9 Local Labourers 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 and the Contractor shall ensure that his sub-contractors are bound by this contractual requirement. Such compensation shall be claimable for separate payment. The P.C. sum allowed in the item B12.04 makes provision for this.

D 03.10 Use of workers

The Contractor shall, in so far as it is reasonably feasible take due cognisance 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.

D 04 ENTREPRENEURIAL SKILLS TRAINING FOR QSE's AND ESE's

D 04.01 Training needs assessments of the Contractor's, QSE and ESE sub-contractors will be undertaken during the course of the Contract by a sub-contractor to be nominated by the Engineer, on the instruction of the Employer's Capex Programme Manager. The training needs assessments shall have as their focus contractor development, and shall identify needs for business development, business management and technical construction management skills. Such training needs may only be identified amongst Local Labour, and QSE and ESE subcontractors.

D 04.02 Once needs assessments have been completed, training to meet the needs identified in the assessment phase will be provided, again by a sub-contractor to be proposed by the Contractor, in consultation with the Engineer, or, on the instruction of the Employer's Capex Programme Manager.

D 04.03 The Contractor shall assist in facilitating in the delivery of the training, by instructing and motivating personnel and subcontractors regarding attendance and participation therein.

D 04.04 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 training.

D 04.05 Following completion of the training, members that have demonstrated understanding of and competence in the training material are to be appropriately certified by the accrediting body.

D 04.06 The Contractor shall be responsible for the provision of the necessary items for the delivery of the entrepreneurial training programme, including the following:

- (a) A suitably furnished venue
- (b) Transport of the subcontractors as required
- (c) Tools, equipment, and teaching aids
- (d) Stationery and all other necessary materials.

D 04.07 All specified entrepreneurial training shall take place within normal working hours.

D 04.08 The Contractor's training programme, if any, 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.

D 04.09 The Contractor shall keep comprehensive records in an acceptable format of all training given to personnel and subcontractors 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.

D 04.10 No remuneration in respect of time spent undergoing specified training in terms of this Clause will be made to any of the QSE and EME subcontractors.

D 05 TRAINING PROGRAMME

The contractor shall provide a programme to the engineer setting out:

- (i) Training courses, clearly identifying engineering and entrepreneurial skills training,
- (ii) Dates of various courses,
- (iii) Dates when practical training will be done,
- (iv) Names of trainees,
- (v) Any other appropriate information instructed

The programme shall be in an acceptable format, shall be revised to reflect the latest available information and a register of revisions shall be enclosed with the programme.

D 06 MEASUREMENT AND PAYMENT

D 06.01 Basic principles

- (a) Training

The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the selected sub-contractor training providers, appointed as directed by the Employer, in execution of the Engineer's written instruction, plus a percentage as tendered to cover all his charges and profits.

Payment of trainees wages during training (the contractor will be reimbursed for these wages by way of the Provisional Sum allowances in the Bill of Quantities).

No wages for trainees will be paid during entrepreneurial skills training.

The Contractor will be required to obtain three quotations from the training service providers for each course to be undertaken and appoint the most suitable training provider as a sub-contractor, giving preference to locals and BB-BEE- entities with a rating between 3 and 1.; The Engineer will require an adjudication report with recommendations from the contractor prior to approval of the appointment of the training provider.

(b) General

No separate payment will be made for the provision of a training venue, stationary, transport of trainees, tools equipment and teaching aids and remuneration of workers during training.

No additional payment shall be made for informal training.

D 06.02 Scheduled items

Payment items are included in the Schedule of Quantities under Section 1200 for the provision of the compulsory training. Any additional training as viewed by the Contractor to be necessary shall be viewed to be included under Section 1300 and shall not be paid for separately.

PROJECT SPECIFICATIONS**PART E : HEALTH AND SAFETY SPECIFICATION****CONTENTS**

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E 01 SCOPE

This specification covers the requirements, notwithstanding the provisions of all other appropriate legislation and regulations in this regard, for ensuring the continued health and safety of all personnel having access to the construction site, and in ensuring that persons not having such access may not enter the site for the duration of all construction works undertaken on the site.

E 02 INTERPRETATIONS**E 02.01 Supporting documents**

The tender rules, conditions of contract, standard, supplementary and specific specifications and project specifications and drawings shall inter alia be read in conjunction with this specification, together with the Occupational Health and Safety Amendment Act (Act 85 of 1993) and the Construction Regulations issued in pursuance of this Act in Government Gazette no. 37305 dated 07 February 2014.

E 02.02 Application

The provisions of this specification shall apply in respect of all Contractors appointed by the Employer for work on the site, as well as to all sub-contractors appointed by Contractors, their personnel and assigned agents expected to work on the site.

E 03 FALL PROTECTION

E 03.1 The complete contents of Paragraph 10, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 04 STRUCTURES

E 04.1 The complete contents of Paragraph 11, and all of their sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 05 TEMPORARY WORKS

E 05.1 The complete contents of Paragraph 12, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 06 EXCAVATION WORK

E 06.1 The complete contents of Paragraph 13, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 07 DEMOLITION WORK

E 07.1 The complete contents of Paragraph 14, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 08 SCAFFOLDING AND SUSPENDED PLATFORMS

E 08.1 The complete contents of Paragraphs 16 and 17, and all their sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification pertaining to the use of scaffolding.

- E 08.2** The use of suspended platforms for access to any works on this contract is expressly forbidden.

E 09 ROPE ACCESS WORKS

- E 09.1** The complete contents of Paragraph 18, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 10 MATERIAL HOISTS

- E 10.1** The complete contents of Paragraph 19, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 11 BULK MIXING PLANT

- E 11.1** The complete contents of Paragraph 20, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 12 EXPLOSIVE ACTUATED FASTENING DEVICE

- E 12.1** The complete contents of Paragraph 21, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 13 CRANES

- E 13.1** The complete contents of Paragraph 22, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 14 CONSTRUCTION VEHICLES AND MOBILE PLANT

- E 14.1** The complete contents of Paragraph 23, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 15 ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITES

- E 15.1** The complete contents of Paragraph 24, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 16 USE AND TEMPORARY STORAGE OF FLAMMABLE LIQUIDS ON CONSTRUCTION SITES

- E 16.1** The complete contents of Paragraph 25, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 17 WATER ENVIRONMENTS

- E 17.1** The complete contents of Paragraph 26, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 18 HOUSEKEEPING AND GENERAL SAFEGUARDING ON CONSTRUCTION SITES

- E 18.1** The complete contents of Paragraph 27, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 19 STACKING AND STORAGE ON CONSTRUCTION SITES

- E 19.1** The complete contents of Paragraph 28, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 20 FIRE PRECAUTIONS ON CONSTRUCTION SITES

- E 20.1** The complete contents of Paragraph 29, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 21 CONSTRUCTION EMPLOYEES' FACILITIES

E 21.1 The complete contents of Paragraph 30, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 37305 dated 07 February 2014, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 22 MEASUREMENT AND PAYMENT

E 22.1 Payment for the contractor's obligations in respect of the Occupational Health and Safety act and Construction Regulations shall be made through three payment items described below. The three payment items together shall include full compensation for all personnel (including a dedicated full time Construction Safety Officer), cost and incidentals in respect of compliance with the enforcement of the Health and Safety Specifications, which shall include for the compilation, presentation, implementation and maintenance of the Health and Safety Plan as contemplated. In tendering rates for the three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

All of the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall be deemed to be included in the rates tendered for the items of work listed below.

Item	Unit
E 23.01 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Lump Sum

The full amount will be paid in one instalment only once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.

Item	Unit
E 23.02 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and the transport of employees on site. Payment will be monthly only after payment for Item E 23.01 has been made.

Item **Unit**

E 23.03 Submission of the Health and Safety File Lump Sum

The tendered lump sum shall represent full compensation for the contractor meeting all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and for the preparation and submission of his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

The total tendered sum for items E23.01, E23.02 and E23.03 shall not be less than 1% of the total tendered sum exclusive of VAT.

The combined total amount of Payment Items E23.01, E23.02, E23.03 B13.01(a) to (c) (Project Specification Part B) shall not exceed 16% of the total tendered sum excluding VAT.

Item **Unit**

E 23.04 Protection of Pedestrians Lump Sum

The tendered rate shall be the lump sum to cover the cost of providing the necessary hazard type, fencing, barricades, signage and all incidentals to ensure the safety and protection of pedestrians where this is deemed necessary or as ordered by the engineer.

PROJECT SPECIFICATIONS

PART F: HIV/AIDS SPECIFICATION

CONTENTS

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F 04	HIV/AIDS AWARENESS EDUCATION AND TRAINING
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F 07	APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION
F 08	MONITORING
F 09	MEASUREMENT AND PAYMENTS

F 01 SCOPE

- F 01.1** This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:
- F 01.2** Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behavior, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counseling, the diagnosis and treatment of Sexually Transmitted Infections, and the closest health service providers.
- F 01.3** Informing Workers of their rights with regard to HIV/AIDS in the workplace.
- F 01.4** Providing Workers with access to condoms and other awareness material that will enable construction Workers to make informed decisions about sexual practices.

F 02 DEFINITIONS AND ABBREVIATIONS

F 02.1 Definitions

Service Provider: The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programmes.

Service Provider Workshop Plan: A plan outlining the content, process and schedule of the training and education workshops presented by a Service Provider, which has been approved by the Representative/Agent.

Worker: Persons in the employ of the Contractor or under the direction or supervision of the Contractor or any of his sub-contractors, who are on site for a minimum period of 30 days in all.

F 02.2 Abbreviations

HIV : Human Immunodeficiency Virus

AIDS : Acquired Immune Deficiency Syndrome

STI : Sexually Transmitted Infection

F 03 BASIC METHOD REQUIREMENT

- F 03.1** The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers.
- F 03.2** The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regards to HIV/AIDS awareness. The Contractor shall submit the Service Provider Workshop Plan for approval within 21 days after the tender acceptance date. After approval by the Department's Tender Committee, the Contractor shall make available an appropriate venue that will be conducive to education and training.
- F 03.3** The Service Provider Workshop Plan shall address, but will not be limited to the following:
- (a) The nature of the disease;
 - (b) How it is transmitted;
 - (c) Safe sexual behaviour;
 - (d) Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
 - (e) Attitudes towards other people with HIV/AIDS;
 - (f) Rights of the Worker in the workplace;
 - (g) How the awareness champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively;
 - (h) How the Service Provider will support the awareness champion;
 - (i) Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
 - (j) How the workshops will be presented, including frequency and duration;
 - (k) How the workshops will fit in with the construction programme;
 - (l) How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
 - (m) How the video will be used;
 - (n) How the Service Provider will elicit maximum participation from the Workers;
 - (o) A questions and answers slot (interactive session)

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated.

F 04 HIV/AIDS AWARENESS EDUCATION AND TRAINING

F 04.1 Workshops

The Contractor shall ensure that all the Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

F 04.2 Recommended practice

Workshop Schedule

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers

are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan.

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing opportunity between workshop sessions for Workers to reflect and test information. Workers will also have an opportunity to ask questions at a next session.

An attendance register should be kept by the Service Provider at every workshop and should be handed to the Department's Project Manager on a monthly basis together with Process Indicator Forms.

Service Providers

A data base of recommended Service Providers is available from the Department of Public Works, Private Bag X65, Pretoria, 0001, located at the Central Government Offices, corner of Bosman and Vermeulen Streets, Pretoria and at all Public Works Regional Offices.

HIV/AIDS Specific Learning Outcomes and Assessment Criteria

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours. In order to set a minimum standard requirement, the following specific learning outcomes and assessment criteria shall be met.

(a) UNIT 1: The nature of HIV/AIDS

After studying and understanding this unit the Worker will be able to differentiate between HIV and AIDS and comprehend whether or not it is curable. The Worker will also be able to explain how the HI virus operates once a person is infected and identify the symptoms associated with the progression of HIV/AIDS.

Assessment Criteria:

1. Define and describe HIV and AIDS
2. List and describe the progression of HIV/AIDS

(b) UNIT 2: Transmission of the HI virus

After studying and understanding this unit the Worker will be able to identify bodily fluids that carry the HI virus. The Worker will be able to recognise how HIV/AIDS is transmitted and how it is not transmitted.

Assessment Criteria:

1. Record in what bodily fluids you will find the HI virus.
2. Describe how HIV/AIDS can be transmitted.
3. Demonstrate your ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS.

(c) UNIT 3: HIV/AIDS preventative measures

After studying and understanding this unit the Worker will comprehend how to act in a way that would minimise the risk of HIV/AIDS infection and to use measures to prevent the HI virus to enter the blood stream.

Assessment Criteria:

1. Report on how you could minimise your risk of HIV/AIDS infection.
2. Report on precautions that can be taken to prevent HIV/AIDS infection.
3. Explain or demonstrate how to use a male and female condom.
4. List of factors that could jeopardize the safety condoms provide against HIV/AIDS transmission.

(d) UNIT 4: Voluntary HIV/AIDS counseling and testing

After studying and understanding this unit the Worker will be able to recognise methods of testing for HIV/AIDS infection. The Worker will be able to understand the purpose of voluntary HIV/AIDS testing and pre- and post-test counseling.

Assessment Criteria:

1. Describe kinds of testing for HIV/AIDS infection.
2. Report on why voluntary testing is important.
3. Report on why pre- and post-test counseling is important.

(e) UNIT 5: Living with HIV/AIDS

After studying and understanding this unit the Worker will be able to recognise the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS.

Assessment Criteria:

1. List and describe ways to manage HIV/AIDS.
2. Describe nutritional needs of people living with HIV/AIDS.
3. Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS.
4. Explain the need of counseling and support to people living with HIV/AIDS.

(f) UNIT 6: Treatment options for people with HIV/AIDS

After studying and understanding this unit the Worker will be familiar with the various treatments available to HIV/AIDS infected or potentially HIV/AIDS infected people.

Assessment Criteria:

1. Discuss anti-retroviral therapy
2. List methods of treatment to prevent HIV/AIDS transmission from mother-to-child.
3. Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS.
4. Describe post exposure prophylactics.

(g) UNIT 7: The rights and responsibilities of Workers in the workplace with regards to HIV/AIDS

After studying and understanding this unit the Worker will be able to identify the rights and responsibilities of the Worker living with HIV/AIDS in the workplace. The Worker will recognise the importance of accepting colleagues living with HIV/AIDS and treating them in a non-discriminative way.

Assessment Criteria:

1. Discuss the rights of a person living with HIV/AIDS in the workplace.
2. Discuss the responsibilities of a person living with HIV/AIDS in the workplace.
3. Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important.

F04.3 Displaying of plastic laminated posters and distribution of information booklets

- (a) The Contractor shall obtain a set of four posters conveying different key messages, and information booklets from the Construction Industry Development Programme Unit (CIDP), Room A520 located in the Central Government Offices, corner of Bosman and Vermeulen Streets, Pretoria or at all Regional Offices of the Department of Public Works. The postal address is the Department of Public Works, Private Bag X65, Pretoria, 0001.
- (b) The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's.

- (c) Posters or display stands shall be displayed on site as soon as possible but not later than 14 days after the date of site hand over.
- (d) Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.
- (e) The posters on display should always be intact, clear and readable.
- (f) Information booklets must be distributed to all Workers as soon as possible but not later than 14 days after site hand over, or as soon as the Worker joins the site.

F05 PROVIDING WORKERS WITH ACCESS TO CONDOMS

- F05.1** The Contractor shall provide and maintain condom dispensers and make both male and female condoms complying with the requirements of SABS ISO 4074 available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the local clinic or the Department of Health.
- F05.2** At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary to ensure that condoms are available within 14 days of site hand over.
- F05.3** Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

F06 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

- F06.1** The Contractor shall provide the Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counseling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics should be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

F07 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

- F07.1** Within 14 days of site hand over the Contractor shall appoint an Awareness Champion, from, amongst the Workers, who speaks and understands all the languages spoken by the Workers and he/she shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive way.

The Awareness Champion shall be responsible for:

- (a) Liaising with the Service Provider on organising awareness workshops;
- (b) Filling condom dispensers and monitoring condom distribution;
- (c) Handing out information booklets;
- (d) Placing and maintaining posters

F08 MONITORING

- F08.1** The Contractor shall grant to the Representative/Agent reasonable access to the construction site in order to conduct unannounced site visits in order to establish

that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract.

- F08.2** The Representative/Agent shall conduct the site visits with the least possible disruption to the Contractor's daily routine.
- F08.3** Contractors must report problems that they experience in implementing the HIV/AIDS requirements to the Representative/Agent.
- F08.4** The attached SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent.
- F08.5** The attached SERVICE PROVIDER REPORT (SCHEDULE B) shall be completed and submitted on a monthly basis to the Department's Project Manager through the Representative/Agent.
- F08.6** The Contractor shall, at the end of the contract, complete and submit a close out programme report CONTRACTOR HIV/AIDS PROGRAMME REPORT (SCHEDULE C).

F09 MEASUREMENT AND PAYMENT

- F09.1** It is required of tenderers to thoroughly study the HIV/AIDS Specifications of the Department that must be read together with and is deemed to be incorporated in the Schedule of Quantities. Provision for pricing of HIV/AIDS awareness must be made under Item F10.01 hereafter and it is explicitly pointed out that all requirements of the aforementioned specifications are deemed to be priced hereunder as the said item represents the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.
- F09.2** Contractor should take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative /Agent, notwithstanding the provisions of any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Item	Unit
F 10.01	HIV AIDS Awareness obligations Lump Sum

The tendered lump sum shall be in full compensation for the contractor providing an approved selected service provider to comply with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme and the Contractor's handling costs, profit, record keeping, reporting and all other charges in connection with providing the HIV AIDS Awareness programme.

Payment under item F10.01 will be made as follows:

80% of the amount will be paid once the service provider has complied with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme.

The outstanding 20% will be paid on completion of the contract, subject to the contractor's compliance in all respects with the requirements and conditions of the Department's HIV AIDS Specifications.



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

C3.5. MANAGEMENT

C3.5.1 OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY MANAGEMENT SPECIFICATION

CONTENTS

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- C3.5.1.2 DEFINITIONS
- C3.5.1.3 PROJECT DESCRIPTION
- C3.5.1.4 TENDERS
- C3.5.1.5 NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK
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C3.5.1.1 Scope

This specification covers the health and safety requirements to be fulfilled by the contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2014, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHS Act Agreement in Section 12 (Forms to be Completed by Successful Tenderer) of the tender document, the status of the contractor as mandatory to the employer (Client) is that of an employer in his own right, responsible to comply with all provisions of OHS Act 1993 and the Construction Regulations 2014.

This health and safety specification and the contractor's own Health and Safety Plan as well as the Construction Regulations 2014, shall be displayed on site and made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

C3.5.1.2 Definitions

For the purpose of this contract the following shall apply:

- (a) **"Employer"** where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract 2015 and it shall have the exact same meaning as **"Client"** as defined in the Construction Regulations 2014. **"Employer"** and **"Client"** is therefore interchangeable and shall be read in the context of the relevant document.
- (b) **"Contractor"**, wherever used in the contract documents and in this specification, shall have the same meaning as **"Contractor"** as defined in the General Conditions of Contract.

The "Contractor" is the "Principal Contractor" in terms of the Construction Regulations 2014. The "Contractor" and "Subcontractor" are "Contractors" in terms of the Construction Regulations 2014.

For the purpose of this contract the **Contractor** will, in terms of OHS Act 1993, be the mandatory of the employer, without derogating from his status as an employer in his own right.

"Employer's Agent" where used in this specification, means the Employer's Agent as defined in the General Conditions of Contract. The employer may appoint the Engineer or any other person to act as his "Agent" in terms of the Construction Regulations 2014.

C3.5.1.3 Project Description

The work to be carried out under this contract is as described in Section 3.1 Description of the Works.

C3.5.1.4 Tenders

The contractor shall make available the following during the tender evaluation:

- (a) a documented Health and Safety Plan as stipulated in Regulation 7 of the Construction Regulations 2014. The Safety Plan must be based on the Health and Safety Specification in the Project Specifications and will be subject to approval by the employer;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014; Complete Form T2.1 K, page T2.24.

Failure to make available the foregoing with his tender or during tender evaluation, will lead to the conclusion that the tenderer is not able to carry out the work under the contract safely in accordance with the Construction Regulations and will result in the tender being disqualified.

C3.5.1.5 Notification of Commencement of Construction Work

After award of the contract, but before commencement of construction work, the contractor shall, in terms of Regulation 4, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (d) excavation work deeper than 1,0 m; or
- (e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma included under Section 11 (The Occupational Health and Safety Act) of the tender document. See Annexure A for a copy of the notification.

A copy of the notification form must be kept on site, available for inspection by inspectors, employer, Engineer, employees and persons on site.

C3.5.1.6 Guidelines for the Development of a Health & Safety Plan

C3.5.1.6.1 Project Background

In terms of the Construction Regulations 2014 [Regulation 5 (1) (b)] of the Occupational Health and Safety Act, No 85 of 1993, the Client is required to compile an Occupational Health and Safety specification the construction work and the contractor, appointed by the Client in terms of Regulation 5, is required to prepare an Occupational Health and Safety Plan. This plan has to be prepared in terms of Regulation 7 (1) (a) as well as the Client's Occupational Health & Safety Specification. In terms of Regulation 5 (1) (l), the client and the contractor are required to agree on the Occupational Health and Safety Plan before any work may commence.

C3.5.1.6.2 Framework for an Occupational Health and Safety Plan

C.3.5.1.6.2.1 Introduction

The contractor has to demonstrate to the Client that he has a suitable and sufficiently documented Occupational Health and Safety Plan as well as the necessary competencies, experience and resources to perform the construction work safely. The contractor could be required to submit the following documentation for perusal and verification by the Client:

- Management Structure
- Quality Plan
- Human Resources Plan
- Registered Workplace Skills Plan
- "Letter of good standing" from the Compensation Commissioner or licensed compensation insurer.
- Proof of induction and other training of employees
- Example copy minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation Reports

C3.5.1.6.2.2 Contents of an Occupational Health and Safety Plan

The Occupational Health and Safety Plan shall include the following:

C3.5.1.6.2.3 Occupational Health and Safety Management Programme

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

C3.5.1.6.2.4 Communication and Management of the Work

- Management structure and responsibilities
- Occupational Health and Safety objectives for the project and arrangements for monitoring and review of Occupational Health and Safety performance
- Arrangements for
 - Regular liaison between parties on site
 - Consultation with the workforce
 - The exchange of design information between the Client, Engineer, supervisors and subcontractors on site
 - Handling design changes during the project
 - Selection and control of subcontractors
 - The exchange of Occupational Health and Safety information between all subcontractors
 - Security
 - Site induction and on-site training
 - Facilities and first-aid
 - The reporting and investigation of accidents and incidents
 - The production and approval of risk assessments and method statements
 - Site Occupational Health and Safety rules
 - Fire and emergency procedures
 - Reporting to the Client i.e. results of Occupational Health and Safety inspections, incident
 - and incident investigations and committee meetings
 - Reporting of incidents to the Department of Labour and Compensation insurer where appropriate

C3.5.1.6.2.5 Arrangements for controlling significant site risks

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

- Safety risks
 - Services, including temporary electrical installations
 - Preventing employees from falling into excavations, from trucks etc.
 - Work with, on or near fragile materials

- Control of lifting operations
- The maintenance of plant and equipment
- Poor ground conditions
- Traffic routes and segregation of vehicles and pedestrians
- Storage of hazardous materials
- Dealing with existing unstable structures/land
- Accommodating adjacent land use
- Other significant safety risks as and when identified
- Health risks
 - Storage and use of hazardous chemical substances
 - Dealing with contaminated land or material
 - Manual handling
 - Reducing noise and vibration
 - Provision of adequate lighting
 - Ventilation considerations
 - Extreme heat and cold temperature considerations
 - Dealing with HIV/Aids and other illnesses
 - Provision of and maintaining ablution and eating facilities
 - Other significant health risks as and when identified

C3.5.1.7 Health and Safety File

The contractor shall in terms of Construction Regulation 7(1) (b) maintain a Health and Safety File on site at all times. The Health and Safety File is a file or other permanent record containing information on aspects of the construction project - which will be necessary to ensure the health and safety of any person who may be affected by the construction work.

The contractor shall appoint a suitably qualified person to prepare the Health and Safety File and to keep it up to date for the duration of the contract. The Health and Safety file shall include the following information:

- Notification of Construction Work (Construction Regulation 4.) (Annexure A)
- Copy of OH&S Act (updated) (General Administrative Regulation 4.)
- Proof of Registration and good standing with a COID Insurer (Construction Regulation 5 (1) (j))
- Copy of health and safety plan (construction regulation 5 (1))
- OH&S Programme agreed with Client including the underpinning Risk Assessment and Method Statements (Construction regulation 5 (1))
- Designs/drawings (Construction Regulation 7 (1) (b))
- A list of contractors (subcontractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 7)
- Appointment / Designation forms required by the ACT and Regulations.
- Registers as follows:

- * Accident/Incident Register (Annexure 1 of the General Administrative Regulations)
- * OH&S Representatives Inspection Register
- * Form/Support work Inspection
- * Excavations Inspection
- * Lifting Equipment
- * Demolition Inspections
- * Designer's Inspection of Structures Record
- * Batch Plant Inspections
- * Arc & Gas Welding & Flame Cutting Equipment Inspections
- * Construction Vehicles & Mobile Plant Inspections
- * Electrical Installation and Machinery Inspections
- * Fire Equipment Inspection & Maintenance
- * First Aid
- * Hazardous Chemical Substances
- * Lifting Tackle and Equipment Inspections
- * Inspection of Cranes
- * Inspection of Ladders
- * Inspection of Vessels under Pressure
- * Machinery Inspections
- * Drivers/Operators of Mobile Plant/Construction Vehicles Daily Inspections
- * Accommodation of traffic daily inspection book

Annexure B is a list of the records to be kept on site.

The Health & Safety File shall be handed over to the Client on completion of the contract. It must contain all the documentation handed to the contractor by any subcontractors together with a record of all drawings, designs, materials used and other similar information concerning the completed project.

C3.5.1.8 Risk Assessment

Before commencement of any construction work during the construction period, the contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2014).

Risk is a measure of the likelihood that the harm from a particular hazard will be realized, taking into account the possible severity of the harm. Harm to people includes death, injury (permanent or temporary), physical or mental health or any combination thereof. Risk management in health and safety includes the identification of hazards, assessing risks, taking action to eliminate or reduce the risk, monitoring the effectiveness and performing regular reviews of the entire process. The contractor shall compile method statements to address or handle the following:

- Hazards particulars to contract
- Identify what could go wrong and how
- Identify the likelihood of this happening
- Identify the persons at risk
- Identify the extent of possible harm
- Eliminating or reducing this risk

- A monitoring plan
- A review plan

contractors must ensure that all subcontractors conduct risk assessments for their scope of work as well.

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, employer, engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the contractor.

C3.5.1.9 Appointment of Employees and Subcontractors

C3.5.1.9.1 Health and Safety Plan

The contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

C3.5.1.9.2 Health and safety induction training

The contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The contractor shall ensure that every employee or visitor on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

C3.5.1.9.3 OH&S Training Requirements: (as required by the Construction Regulations and as indicated by the OH&S Specification and the Risk Assessment/s):

- * General Induction (Section 8 of the Act)
- * Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- * Site/Project Manager
- * Construction Supervisor
- * OH&S Representatives (Section 18 (3) of the Act)
- * Training of the Appointees indicated in 3.1.1. & 3.1.2. above
- * Operation of Cranes (Driven Machinery Regulations 18 (11))
- * Operators and Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 23)
- * Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction regulation 29)

- * Basic First Aid (General Safety Regulations 3)
- * Storekeeping Methods & Safe Stacking (Construction Regulation 28)
- * Emergency, Security and Fire Co-ordinator

C3.5.1.10 Appointment of Safety Personnel

C3.5.1.10.1 Construction supervisor

The contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

C3.5.1.10.2 Health and safety representatives

In terms of Sections 17 and 18 of the Act (OHSA 1993) the contractor shall appoint a health and safety representative whenever he has more than 20 employees in his employ on the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 50 employees.

The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

C3.5.1.10.3 Health and safety committee

In terms of Sections 17 and 18 of the Act (OHSA 1993) the contractor (as employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the contractor and the inspector, and to make recommendations regarding health and safety to the contractor and to keep record of meetings, recommendations and reports made by the committee.

C3.5.1.10.4 Competent persons

In accordance with the Construction Regulations the contractor shall appoint, in writing, competent persons responsible for supervising construction work for the following work situations that may be expected on the site of the works.

- (a) Risk assessment (Regulation 9);
- (b) Fall protection (Regulation 10);

- (c) Structures (Regulation 11);
- (d) Formwork and support work (Regulation 12);
- (e) Excavation work (Regulation 13);
- (f) Demolition work (Regulation 14);
- (g) Tunnelling (Regulation 15);
- (h) Scaffolding work (Regulation 16);
- (i) Suspended platform operations (Regulation 17);
- (j) Rope Access Works (Regulation 18);
- (k) Material Hoists (Regulation 19);
- (l) Bulk Mixing Plant (Regulation 20);
- (m) Explosive powered tools (Regulation 21)
- (n) Cranes (Regulation 22);
- (o) Construction vehicle and mobile plant (Regulation 23);
- (p) Electrical installation and machinery on construction site (Regulation 24);
- (q) Use of temporary storage of flammable liquids on construction site (Regulation 25);
- (r) Water environments (Regulation 26):
- (s) Housekeeping on construction sites (Regulation 27)
- (t) Stacking and storage on construction sites (Regulation 28);
- (u) Fire precautions on construction sites (Regulation 29); and
- (v) Construction employees facilities (Regulation 30).

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

C3.5.1.11 Contractor's Responsibilities

Before commencement of work under the contract, the contractor shall enter into an agreement with the employer (Client) to confirm his status as mandatary (employer) for the contract under consideration.

The contractor's duties and responsibilities are clearly set out in the Construction Regulations 2014, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the contractor of any of his duties and responsibilities in terms of the Construction Regulations.

In addition the contractor shall also comply with the requirements of the Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA) and to this effect shall submit a letter of good standing with the compensation Insurer to the Client before work on site commences.

(a) Contractor's position in relation to the Employer (Client) (Regulation 5)

In accordance with Section 7 of the Regulations, the contractor shall liaise closely with the employer or the engineer on behalf of the employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

(b) The Contractor and subcontractor (Regulation 7)

The contractor is in terms of the definition in Regulation 2(1) the equivalent of contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 7.

Any subcontractors employed by the contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall, however, provide and demonstrate to the contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the contractor's safety plan, the health and safety specifications of the employer and the Construction Regulations 2014.

(c) Supervision of construction work (Regulation 8)

The contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 8 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the contractor from any of the obligations under Regulation 8.

The contractor shall appoint a safety officer in terms of Regulation 6(6).

(d) Risk assessment (Regulation 9)

The contractor shall have the risk assessment is performed as set out in paragraph 7 above before commencement of the work, and it must be available on site for inspection at all times. The contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 9.

(e) Fall protection (Regulation 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 10 of the Construction Regulations.

(f) Structures (Regulation 11)

The contractor will be liable for all claims arising from the collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work (*Regulation 12*)

The contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person. A design certificate of the formwork and support structures shall be submitted by a professional engineer.

The provisions of Regulation 12 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (*Regulation 13*)

It is essential that the contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The contractor shall therefore ensure that all excavation work is in terms of the Standard Specifications and Project Specifications and the Construction Regulations and carried out under the supervision of a competent person, that inspections are carried out by a professional engineer or technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions. An excavation supervisor will be appointed for all types of excavation irrespective of the depth and a daily register will be kept on site.

Supervision by a competent person will not relieve the contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(i) Demolition work (*Regulation 14*)

Whenever demolition work is included in a contract, the contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the contractor, does not relieve the contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling (*Regulation 15*)

The contractor shall comply with Regulation 15 wherever tunnelling of any kind is involved.

(k) Scaffolding (*Regulation 16*)

The contractor shall ensure that all the provisions of Regulation 16 of the Construction Regulations are complied with. [Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"].

(l) Suspended platforms (*Regulation 17*)

Wherever suspended platforms will be necessary on any contract, the contractor shall ensure that copies of the system design issued by a professional engineer are submitted to the engineer for inspection and

approval. The contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Rope Access Works (Regulation 18)

Where rope access works are carried out on the construction site, the contractor shall comply with Regulation 18.

(n) Material Hoists (Regulation 19)

Wherever applicable, the contractor shall comply with the provisions of Regulation 19 to the letter.

(o) Bulk Mixing plants (Regulation 20)

Wherever applicable, the contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 20. The contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools (Regulation 21)

The contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 23)

The contractor shall ensure that all construction vehicles and plant are in good working and roadworthy condition and safe for use, and that they are used in accordance with their design and intended use. All vehicles shall be licensed and insured. All drivers shall have a relevant driving license. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 23.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

The contractor shall comply to Regulation 23(2)(a) and (i) when transporting employees.

(s) Electrical installation and machinery on construction sites (*Regulation 24*)

The contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 24.

(t) Use of temporary storage of flammable liquids on construction sites (*Regulation 25*)

The contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 2986) and all the provisions of Regulation 25 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (*Regulation 26*)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(v) Housekeeping on Construction sites (*Regulation 27*)

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 27 of the Construction Regulations.

(w) Stacking and storage on construction sites (*Regulation 28*)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 28 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (*Regulation 29*)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 29 of the Construction Regulations.

(y) Construction employees facilities (*Regulation 30*)

The contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 30 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2014

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

C3.5.1.11.1 Compensation registration

The Contractor shall ensure that it has a valid registration with the Compensation Commissioner, as required in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 (“**COID**”), and that all payments owing to the Compensation Commissioner are discharged. The Contractor shall further ensure that the cover shall remain in force whilst any such Employee is present at the Project Site.

C3.5.1.11.2 Medical examinations

The Contractor shall ensure that all workmen employed by it or its Employees undergo routine medical examinations where these are necessary in terms of the working environment and that they are medically fit for the purposes of providing the Project Deliverables at the Project Site.

The Contractor shall ensure that any disease which in the belief of a medical practitioner, arose out of the employment of an Employee, shall be reported in accordance with Section 25 of OHSA.

C3.5.1.11.3 Incident reporting and investigation

All incidents referred to in Section 24 of OHSA shall be reported by the Contractor to the Department of Labour and to the Department. The Department shall further be provided with copies of any written documentation relating to any incident.

The Department retains an interest in the notification of any incident as described above, as well as in any investigation contemplated under Section 31 of OHSA and/or formal inquiry conducted in terms of Section 32 of OHSA into such incident.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations

C3.5.1.12 Project / Site Specific Requirements

The following is a list of specific activities and considerations that have been identified for the project and the construction site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- * Clearing & Grubbing of the Site

- * Site Establishment
- * Dealing with existing structures
- * Location and relocation of existing services
- * Installation and maintenance of temporary construction electrical supply, lighting and equipment
- * Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.
- * Accommodation of traffic
- * Exposure to noise
- * Exposure to vibration
- * Exposure to bituminous products
- * Protection against dehydration and heat exhaustion
- * Protection from wet & cold conditions
- * Dealing with HIV/Aids and other diseases
- * Use of Portable Electrical Equipment including
 - Angle grinder
 - Electrical drilling machine
- * Excavations including
 - Ground/soil conditions
 - Trenching
 - Shoring
 - Drainage of trench
- * Foundation excavations for structures
- * Use of LP gas torches and appliances
- * Loading & offloading of trucks
- * Aggregate/sand and other materials delivery
- * Manual and mechanical handling
- * Lifting and lowering operations
- * Driving & operation of construction vehicles and mobile plant including
 - Excavator
 - Bomag roller
 - Plate compactor
 - Front end loader
 - Mobile cranes and the ancillary lifting tackle
 - Parking of vehicles & mobile plant
 - Towing of vehicles & mobile plant
- * Use and storage of flammable liquids and other hazardous substances
- * Bedding of trench floor
- * Installation of pipes in trench
- * Backfilling of trench
- * Protection against flooding
- * Gabion work
- * Use of explosives

- * Protection from overhead power lines
- * As discovered by the Principal Contractor's hazard identification exercise
- * As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other contractor on site
- * As discovered from any accident/incident investigation.

C3.5.1.13 Arrangements for Monitoring and Review

The Client will conduct a Monthly Audit to audit compliance with Construction Regulation 4(1)(d) to ensure that the contractor has implemented and is maintaining the agreed and approved OH&S Plan. Annexure C will be used as format when conducting the audit.

The Client reserves the right to conduct other ad hoc audits and inspections as deemed necessary.

A representative of the contractor must accompany the client on all audits and inspections and may conduct his own audit/inspection at the same time. Each party will, however, take responsibility for the results of his own audit/inspection results.

C3.5.1.14 Measurement and Payment

In tendering rates for the following three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

Item	Unit
-------------	-------------

C3.5.1.14.02 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Lump Sum
--	----------

The full amount will be paid in one instalment only once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.

Item	Unit
-------------	-------------

C3.5.1.14.03 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month
---	-------

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and the transport of employees on site. Payment will be monthly only after payment for Item D14.01 has been made.

Item	Unit
-------------	-------------

C3.5.1.14.04 Submission of the Health and Safety File

Prov Sum

Expenditure under this item shall be made in accordance with the general conditions of contract.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

The following pay item is for the implementation of safety requirements on the site of the works.

Item**Unit****C3.5.1.14.05 Protection of pedestrians at excavations**

Prov Sum

The provisional sum shall cover all measures ordered by the engineer to ensure the safety of pedestrians in and around the works and shall include compensation for the acquisition, installation and maintenance of materials used for the demarcation of potentially dangerous areas, including excavations.

Expenditure under this item shall be made in accordance with the general condition of contract.

ANNEXURE A

**NOTIFICATION OF CONSTRUCTION WORK
Regulation 4 of the Construction Regulations, 2014**

1. (a) Name and postal address of principal contractor:
.....
- (b) Name and telephone number of principal contractor's contact person:
.....
2. Principal contractor's compensation registration number:
.....
3. (a) Name and postal address of client:
.....
- (b) Name and telephone number of client's contact person or agent:
.....
4. (a) Name and postal address of designer(s) for the project:
.....
- (b) Name and telephone number of designer's contact person:
.....
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulations 6 (1):
.....
6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6 (2):
.....
7. Exact physical address of the construction site or site office:
.....
8. Nature of the construction work:
.....
.....
.....
.....
9. Expected commencement date:
10. Expected completion date:
11. Estimated maximum number of persons on the construction site:
.....

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

.....

13. Name(s) of contractors already chosen:

.....

.....

.....

.....
Principal Contractor

.....
Date

.....
Client

.....
Date

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

ANNEXURE B**RECORDS TO BE KEPT ON SITE**

ITEM	CR	RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	4(1)	Notification to Provincial Director – Annexure 2 Available on site	Principal Contractor
2.	5(b)	Copy of Principal Contractor's Health & Safety Plan Available on request	Client
3.	7(1) (a)	Copy of Principal Contractor's Health & Safety Plan As well as each contractor's Health & Safety Plan Available on request	Principal Contractor
4.	7(1) (b)	Health & Safety File opened and kept on site (including all documentation-required i.t.o. OHS & Regulations Available on request	Every Contractor
5.	7(1) (e)	Consolidated Health & Safety File handed to Client on completion of Construction work. To include all documentation required i.t.o. OHS & Regulations and records of all drawings, designs, materials used and similar information on the structure.	Principal Contractor
6.	7(1) (c)	Comprehensive and Updated List of all contractors on site, the agreements between the parties and the work being done Included in Health & Safety file and available on request	Principal Contractor
7.	6(7)	Keep record on the Health & safety File of the input by Construction Safety Officer [CR 6 (6)] at design stage or on the Health & Safety Plan	Contractor
8.	9	Risk Assessment Available on site for inspection	Contractor
9.	7(7)	Proof of Health & Safety Induction Training	Every Employee on site
10.	10 (1)	Construction Supervisor [CR 6 (1)] has latest updated version of Fall Protection Plan [CR 8 (1)]	Contractor
11.	6 (1)	Inform contractor in writing of dangers and hazards relating to construction work	Designer of Structure
12.	6 (1)	All drawings pertaining to the design of structure On site available for inspection	Contractor
13.	11 (2)	Record of inspection of the structure [First 2 years – once every 6 months, thereafter yearly]	Owner of Structure
14.	11 (2) (d)	Maintenance records – safety of structure Available on request	Owner of Structure
15.	10(1)(d)	Drawings pertaining to the design of formwork/support work structure Kept on site, available on request	Contractor
16.	11(3)(h)	Record of excavation inspection On site available on request	Contractor
17.	15(11)	Suspended Platform inspection and performance test records Kept on site available on request	Contractor
18.	17(8)(c)	Material Hoist daily inspection entered and signed in record book kept on the premises	Contractor
19.	17(8)(d)	Maintenance records for Material Hoist	Contractor

ITEM	CR	RECORD TO BE KEPT	RESPONSIBLE PERSON
		Available on site	
20.	18(9)	Records of Batch Plant maintenance and repairs On site available for inspection	Contractor
21.	19(2)(g)(ii)	Issuing and collection of cartridges and nails or studs (Explosive Powered Tools) recorded in register – recipient signed for receipt as well as return	Contractor
22.	21(1)(d)	Findings of daily inspections (prior to use) of Construction Vehicles and Mobile Plant	Contractor
23.	22(d)	Record of temporary electrical installation inspections [once a week] and electrical machinery [daily before use] in a register and kept on site	Contractor

ANNEXURE C

CONSTRUCTION OCCUPATIONAL HEALTH – SAFETY – ENVIRONMENT
CHECK LIST

CONTRACT NO: _____
DESCRIPTION: _____
CONTRACTOR: _____
CLIENT: _____
AUDIT No: _____
DATE OF AUDIT: _____
PERSONNEL AUDITED: _____
AUDIT PERFORMED BY: _____

1. ADMINISTRATIVE & LEGAL REQUIREMENTS

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 4	Notice of carrying out Construction work	Department of Labour notified Copy of Notice available on Site		
General Admin. Regulation 4	*Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site. Readily available for perusal by employees.		
COID Act Section 80	*Registration with Compens. Insurer. Copy of COID Act. (Act 130 of 1996)	Written proof of registration/Letter of good standing available on Site Copy of Compensation for Occupational Injuries and Diseased Act (COID Act) on site		
Construction. Regulation 4 & 5(1)	OH&S Specification & Programme	OH&S Spec received from Client OH&S programmed developed Updated regularly		
Section 8(2)(d) Construction. Regulation	*Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and – Plan drawn up/Updated RA Plan available on Site Employees/Sub-Contractors informed/trained		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 16(2)	*Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.		
Construction. Regulation 6(1)	Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor		
Construction. Regulation 6(2)	Designation of Assistant for above	Competent person appointed in writing as Assistant Construction Supervisor		
Section 17 & 18 General Administrative Regulations 6 & 7	*Designation of Occupational Health & Safety Representatives	More than 20 employees - one OH&S Representative, one additional OH&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified. Meaningful OH&S Rep. reports. Reports actioned by Management.		
Section 19 & 20 General Administrative Regulations 5	*Occupational Health & Safety Committee/s	OH&S Committee/s established. Members appointed in writing. Meetings held monthly. Minutes kept. Actioned by Management.		
Section 37(1) & (2) Construction Regulation 5	*Agreement with Mandataries/ (Sub-)Contractors	Written agreement with (Sub-)Contractors List of (Sub) Contractors displayed. Proof of Registration with Compensation Insurer/Letter of Good Standing Construction Supervisor designated Written arrangements re. OH&S Reps & OH&S Committee Written arrangements re. First Aid Written arrangements re. Construction Vehicles & Mobile Plant		
Section 24 & General Admin. Regulation 8 COID Act Sect.38, 39 & 41	*Reporting of Incidents (Dept. of Labour)	Incident Reporting Procedure displayed. All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1 or 2) Cases of Occupational Disease Reported Copies of Reports available on Site Record of First Aid injuries kept		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
General Admin. Regulation 9	*Investigation and Recording of Incidents	All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing. Copies of Reports (Annexure 1) available on Site Tabled at OH&S Committee meeting Action taken by Site Management.		
Construction. Regulation 8	Fall Prevention & Protection	Competent person appointed to draw up and supervise the Fall Protection Plan Proof of appointees competence available on Site Risk Assessment carried out for work at heights Fall Protection Plan drawn up/updated Available on Site		
Construction. Regulation 8(5)	Roofwork	Competent person appointed to plan & supervise Roofwork. Proof of appointees competence available on Site Risk Assessment carried out Roofwork Plan drawn up/updated Roofwork inspect before each shift. Inspection register kept Employees medically examined for physical & psychological fitness. Written proof on site		
Construction. Regulation 9	Structures	Information re. the structure being erected received from the Designer including: - geo-science technical report where relevant - the design loading of the structure - the methods & sequence of construction - anticipated dangers/hazards/special measures to construct safely Risk Assessment carried out Method statement drawn up All above available on Site Structures inspected before each shift. Inspections register kept		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 10	Formwork & Support work	Competent person appointed in writing to supervise erection, maintenance, use and dismantling of Support & Formwork Design drawings available on site Risk Assessment carried out Support & Formwork inspected: - before use/inspection - before pouring of concrete - weekly whilst in place - before stripping/dismantling. Inspection register kept		
Construction. Regulation 14	Scaffolding	Competent persons appointed in writing to: - erect scaffolding (Scaffold Erector/s) - act as Scaffold Team Leaders - inspect Scaffolding weekly and after inclement weather (Scaffold Inspector/s) Written Proof of Competence of above appointees available on Site Copy of SABS 085 available on Site Risk Assessment carried out Inspected weekly/after bad weather. Inspection register/s kept		
Construction. Regulation 15	Suspended Platforms	Competent persons appointed in writing to: - control the erection of Susp.platforms - act as Susp.platforms Team Leaders - inspect Susp.Scaffolding weekly and after inclement weather Risk Assessment conducted Certificate of Authorisation issued by a registered professional engineer available on Site/copy forwarded to the Department of Labour The following inspections of the whole installation carried out by a competent person - after erection and before use		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
		<ul style="list-style-type: none"> - daily prior to use. Inspection register kept The following tests to be conducted by a competent person: - load test of whole installation and working parts every 12 months - hoisting ropes/hooks/load attaching devices quarterly. Tests log book kept Employees working on Suspended Platform medically examined for physical & psychological fitness. Written proof available 		
Construction. Regulation 11	Excavations	<p>Competent person/s appointed in writing to supervise and inspect excavation work</p> <p>Written Proof of Competence of above appointee/s available on Site</p> <p>Risk Assessment carried out</p> <p>Inspected:</p> <ul style="list-style-type: none"> - before every shift - after any blasting - after an unexpected fall of ground - after any substantial damage to the shoring - after rain. Inspections register kept <p>Method statement developed where explosives will be/ are used</p>		
Construction. Regulation 12	Demolition Work	<p>Competent person/s appointed in writing to supervise and control Demolition work</p> <p>Written Proof of Competence of above appointee/s available on Site</p> <p>Risk Assessment carried out</p> <p>Engineering survey and Method Statement available on Site</p> <p>Inspections to prevent premature collapse carried out by competent person before each shift. Inspection register kept</p>		
Construction. Regulation 17	Materials Hoist	<p>Competent person appointed in writing to inspect the Material Hoist</p> <p>Written Proof of Competence of above appointee available on Site.</p> <p>Materials Hoist to be inspected weekly by a competent person. Inspections register kept.</p>		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 24	Water Environments (Incl Caissons & Cofferdams)	Competent person appointed in writing to supervise, control & inspect work on or over water and the construction, installation/dismantling of caissons/ cofferdams Written Proof of Competence of above appointee available on Site Risk Assessment carried out To be inspected daily by a competent person. Inspections register kept		
Construction. Regulation 19	Explosive Powered Tools	Competent person appointed to control the issue of the Explosive Powered Tools & cartridges and the service, maintenance and cleaning. Register kept of above Empty cartridge cases/nails/fixing bolts returns recorded Cleaned daily after use		
Construction. Regulation 18	Batch Plants	Competent person appointed to control the operation of the Batch Plant and the service, maintenance and cleaning. Register kept of above Risk Assessment carried out Batch Plant to be inspected weekly by a competent person. Inspections register kept		
Construction. Regulation 130/ Mine H&S Act	Tunnelling	Complying with Mines Health & Safety Act (29 of 1996) Risk Assessment carried out		
Construction. Regulation 20/ Driven Machinery Regulations 18 & 19	Cranes & Lifting Machines Equipment	Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment Written Proof of Competence of above appointee available on Site. Cranes & Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: - All cranes - daily by operator - Tower Crane/s - after erection/6monthly - Other cranes - annually by comp. person - Lifting tackle (slings/ropes/chain slings etc.)		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
		monthly		
Construction. Regulation 22/Electrical Machinery Regulations 9 & 10/ Electrical Installation Regulations	*Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site. Inspections: - Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools and -lights and extension leads identified/ numbered. Monthly visual inspection by User/Issuer/ Storeman. Register kept.		
Diving Regulations	Diving Operations	Competent person appointed in writing to Supervise Diving Operations and ensure maintenance, statutory inspection and testing by an Approved Inspection Authority of equipment used		
Construction. Regulation 26/ General Safety Regulation 8(1)(a)	*Designation of Stacking & Storage Supervisor.	Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage Written Proof of Competence of above appointee available on Site		
Construction. Regulation 27/ Environmental Regulation 9	*Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: - Drilled/Practiced - Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on register . Inspected weekly. Inspection Register kept Serviced annually		
General Safety Regulation 3	*First Aid	Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
		<p>Equipment as per the list in the OH&S Act.</p> <p>One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed)</p> <p>List of First Aiders and Certificates</p> <p>Name of person/s in charge of First Aid box/es displayed.</p> <p>Location of F/Aid box/es clearly indicated.</p> <p>Signs instructing employees to report all Injuries/illness including first aid injuries</p>		
General Safety Regulation 2	Personal Safety Equipment (PSE)	<p>PSE Risk Assessment carried out</p> <p>Items of PSE prescribed/use enforced</p> <p>Records of Issue kept</p> <p>Undertaking by Employees to use/wear PSE</p>		
General Safety Regulation 9	*Inspection & Use of Welding/Flame Cutting Equipment	<p>Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment</p> <p>Written Proof of Competence of above appointee available on Site</p> <p>Equipment identified/numbered and entered into a register</p> <p>Equipment inspected monthly. Inspection Register kept</p>		
Hazardous Chemical Substances (HCS) Regulations Construction Regulation 23	*Control of Storage & Usage of HCS and Flammables	<p>Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS (including Flammables)</p> <p>Written Proof of Competence of above appointee available on Site</p> <p>Risk Assessment carried out</p> <p>Register of HCS kept/used on Site</p>		
Vessels under Pressure Regulations	Vessels under Pressure (VUP)	<p>Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections & testing of VUP's</p> <p>Written Proof of Competence of above appointee available on Site</p> <p>Risk Assessment carried out</p> <p>Certificates of Manufacture available on Site</p> <p>Register of VUP's on Site</p> <p>Inspections & Testing by Approved Inspection Authority (AIA):</p>		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
		<ul style="list-style-type: none"> - after installation/re-erection or repairs - every 36 months. - Register/Log kept of inspections, tests. Modifications & repair 		
Construction. Regulation 21	Construction Vehicles & Earth Moving Equipment	Operators/Drivers appointed to: <ul style="list-style-type: none"> - Carry out a daily inspection prior to use - Drive the vehicle/plant that he/she is competent to operate/drive Written Proof of Competence of above appointee available on Site Record of Daily inspections kept		
General Safety Regulation 13A	*Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and monthly there after. Inspections register kept		
General Safety regulation 13B	Ramps	Competent person appointed in writing to Supervise the erection & inspection of Ramps. Inspection register kept.		

2. EDUCATION & TRAINING

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 7(1)	*Company OH&S Policy	Policy signed by CEO and published/Circulated to Employees Policy displayed on Employee Notice Boards Management and employees committed.		
Section 13(a)	*Company/Site OH&S Rules	Rules published Rules displayed on Employee Notice Boards Rules issued and explained to employees: written proof Follow-up to ensure employees understand/adhere to the rules.		
Section 13(a)	*Induction & Task Safety Training	All new employees receive OH&S Induction Training. Training includes Task Safety Instructions. Employees acknowledge receipt of training. Follow-up to ensure employees understand/adhere to instructions.		
Section 13(a)	*General OH&S Training	All employees receive basic OH&S training: written proof Operators of Plant & Equipment receive specialised training Follow-up to ensure employees understand/adhere to instructions.		
Section 13(a)	*Occupational Health & Safety Promotion	<u>Incident Experience Board indicating e.g.</u> * No. of hours worked without an Injury * No. of days worked without an Injury Star Grading - Board kept up to date. Safety Posters displayed & changed regularly Employee Notice Board for OH&S Notices. Site OH&S Competition. Company OH&S Competition. Participation in Regional OH&S Competition Suggestion scheme.		

3. PUBLIC SAFETY, SECURITY MEASURES & EMERGENCY PREPAREDNESS

Subject	Requirement	Yes/No	Remarks
*Notices & Signs	<p>Notices & Signs at entrances / along perimeters indicating “No Unauthorised Entry”.</p> <p>Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”</p> <p>Notices & Signs posted to warn of overhead work and other hazardous activities. e.g. General Warning Signs</p>		
Site Safeguarding	Nets, Canopies, Stalls, Fans etc. to protect members of the public passing / entering the site.		
*Security Measures	<p>Access control measures/register in operation</p> <p>Security patrols after hours/weekends</p> <p>Sufficient lighting after dark</p> <p>Guard has access to telephone/other means of emergency communication</p>		
*Emergency Preparedness	<p>Emergency contact numbers displayed near Telephone</p> <p>Emergency Evacuation instructions posted up on all notice boards (including employees' notice boards)</p> <p>Emergency contingency plan available on site/in yard</p> <p>Doors open outwards/unobstructed</p> <p>Emergency alarm audible all over (including in toilets)</p>		
*Emergency Drill & Evacuation	<p>Adequate No. of employees trained to use Fire Equipment.</p> <p>Emergency Evacuation Plan available, displayed and practised.</p> <p>(See Section 1 for Designation & Register)</p>		

4. PERSONAL PROTECTIVE EQUIPMENT

Subject	Requirement	Yes/No	Remarks
*PPE needs analysis	Need for PPE identified and prescribed in writing.		
*Head Protection	All persons on site wearing Safety Helmets including Sub-contractors and Visitors (where prescribed)		
*Foot Protection	All persons on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work.		

Subject	Requirement	Yes/No	Remarks
*Eye and Face Protection	<u>Eye and Face Protection</u> (Goggles, Face Shields, Welding Helmets etc.) used when operating the following: * Jack/ Kango Hammers * Angle / Bench Grinders * Electric Drills (Overhead work into concrete / cement / bricks) * Explosive Powered tools * Concrete Vibrators / Pokers * Hammers & Chisels * Cutting / Welding Torches * Arc Welding Equipment * Skill / Bench Saws * Spray Painting Equipment etc.		
*Hearing Protection	<u>Hearing Protectors</u> (Muffs, Plugs etc.) used when operating the following: * Jack / Kango Hammers * Explosive Powered Tools * Wood/Aluminium Working Machines e.g. saws, planers, routers		
*Hand Protection	<u>Protective Gloves</u> worn by employees handling / using: * Cement / Bricks / Steel / Chemicals * Welding Equipment * Hammers & Chisels * Jack / Kango Hammers etc.		
*Respiratory Protection	Suitable/efficient <u>Respirators</u> worn correctly by employees handling / using: * Dry cement * Dusty areas * Hazardous chemicals * Angle Grinders * Spray Painting etc.		
*Fall Prevention Equipment	Suitable <u>Safety Belts</u> / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.: * Scaffolding		

Subject	Requirement	Yes/No	Remarks
	<ul style="list-style-type: none"> * Riggers * Lift shafts * Edge work * Ring beam edges etc. Other methods of fall prevention applied e.g. catch nets		
*Protective Clothing	All jobs requiring protective clothing (Overalls, Rain Wear, Welding Aprons etc.) Identified and clothing worn.		
*PPE Issue & Control	Identified Equipment issued free of charge. All PPE maintained in good condition. (Regular checks). Workers instructed in the proper use & maintenance of PPE. Commitment obtained from wearer accepting conditions and to wear the PPE. Record of PPE issued kept on file.		

5. HOUSEKEEPING

Subject	Requirement	Yes/No	Remarks
*Scrap Removal System	All items of Scrap / Unusable Offcuts / Rubble and redundant material removed from working areas on a regular basis. (Daily). Scrap / Waste removal from heights by chute / hoist / crane. (Nothing thrown / swept over sides). Scrap disposed of in designated containers / areas. Removal from site/yard on a regular basis.		
Stacking & Storage (See Section 1 for Designation & Register)	<u>Stacking:</u> Stable/* On firm level surface / base. Not leaning / collapsing. <ul style="list-style-type: none"> * Irregular shapes bonded. * Not exceeding 3 x the base. * Stacks accessible * Removal from top only <u>Storage:</u> Adequate storage areas provided.		

	<ul style="list-style-type: none"> * Functional - e.g. demarcated storage areas/racks / bins etc. * Special areas identified and demarcated. e.g. Flammable Gas, Cement etc. * Neat, safe, stable and square. * Store/storage areas clear of superfluous material. * Storage behind sheds etc. neat/under control * Storage areas free from weeds, litter etc. *Waste Control/Reclamation 		
*Waste Control/Reclamation	<p>Re-usable Offcuts and other re-useable material removed daily and kept to a minimum in the work areas.</p> <p>All re-useable materials neatly stacked / stored in designated areas. (Nails removed / bent over in re-useable timber).</p> <p>Issue of hardware/nails/screws/cartridges etc. controlled and return of unused items monitored.</p>		
Sub-Contractors (Housekeeping)	Sub-contractors required to comply with Housekeeping requirements.		

6. WORKING AT HEIGHTS (including Roofwork)

Subject	Requirement	Yes/No	Remarks
Openings	Unprotected openings adequately guarded/fenced/barricaded/catchnets installed		
	<p>Roof work discontinued when bad/hazardous weather</p> <p>Fall protection measures (including warning notices) when working close to edges or on fragile roofing material</p> <p>Covers over openings in roof of robust construction/secured against displacement</p>		

7. SCAFFOLDING / FORMWORK / SUPPORT WORK

Subject	Requirement	Yes/No	Remarks
Access/System Scaffolding	<p>Foundation firm / stable</p> <p>Sufficient bracing.</p> <p>Tied to Structure/prevented from side or cross movement</p> <p>Platform boards in good condition/sufficient/secured.</p> <p>Handrails and toe boards provided.</p> <p>Access ladders / stairs provided.</p>		

Subject	Requirement	Yes/No	Remarks
(See Section 1 for Designation & Register)	Area/s under scaffolding tidy. Safe/unsafe for use signs Complying with OH&S Act/SABS 085		
Free Standing Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Safe/unsafe for use signs Height to base ratio correct Outriggers used /tied to structure where necessary Complying with OH&S Act/SABS 085		
*Mobile Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs		
*Mobile Scaffolding	Wheels / swivels in good condition Brakes working and applied. Height to base ratio correct. Outriggers used where necessary Complying with OH&S Act/SABS 085		
Suspended Scaffolding	Outriggers securely supported and anchored. Correct No. of steel wire ropes used. Platform as close as possible to the structure. Handrails on all sides All winches / ropes / cables / brakes inspected regularly.		

Subject	Requirement	Yes/No	Remarks
	Scaffolding complies with OHS Act (Act 85/93) Winch/es maintained by competent person		
Formwork / Support Work	All components in good condition. Foundation firm / stable. Adequate bracing / stability ensured. Good workmanship / uprights straight and plumb. Good cantilever construction. Safe access provided. Areas under support work tidy. Same standards as for system scaffolding.		
Special Scaffolding	Special Scaffolding e.g. Cantilever, Jib and Truss-out scaffolds erected to an acceptable standard and inspected by specialists.		N/A
Edges & Openings	Edges barricaded to acceptable standards. Manhole openings covered / barricaded. Openings in floor / other openings covered, barricaded/fenced. Stairs provided with handrails. Lift shafts barricaded / fenced off.		N/A

8. LADDERS

Subject	Requirement	Yes/No	Remarks
*Physical Condition / Use & Storage (See Section 1 for Designation & Register	Stepladders - hinges/stays/braces/stiles in order. Extension ladders - ropes/rungs/stiles/safety latch/hook in order. Extension / Straight ladders secured or tied at the bottom / top. No joined ladders used All ladders stored on hooks / racks and not on ground. Ladders protrude 900 mm above landings / platforms / roof. Fixed ladders higher than 5 m have cages/Fall arrest system		N/A

9. ELECTRICITY

Subject	Requirement	Yes/No	Remarks
*Electrical Distribution Boards & Earth Leakage	Colour coded / numbered / symbolic sign displayed. Area in front kept clear and unobstructed. Fitted with inside cover plate / openings blanked off / no exposed "live" conductors / terminals/Door kept close Switches / circuit breakers identified. Earth leakage protection unit fitted and operating. Earth leakage protection unit fitted and operating. Tested with instrument: Test results within 15 – 30 milli-amps Aperture/Opening/s provided for the plugging in and removal of extension leads without the need to open the door		
*Electrical Installations & Wiring	Temporary wiring / extension leads in good condition / no bare or exposed wires. Earthing continuity / polarity correct: " Brown is live, Blue is not, Green and Yellow earth the lot" Cables protected from mechanical damage and moisture. Correct loading observed e.g. no heating appliance used from lighting circuit etc. Light fittings/lamps protected from mechanical damage/moisture.		
*Physical condition of Electrical Appliances & Tools	<u>Electrical Equipment and Tools:</u> (includes all items plugging in to a 15 Amp supply socket) Insulation / casing in good condition. Earth wire connected/intact where not of double insulated design Double insulation mark where no earth wire. Cord in good condition/no bare wires/secured to machine & plug. Plug in good condition, connected correctly and correct polarity.		

10. EMERGENCY/FIRE PREVENTION AND PROTECTION

Subject	Requirement	Yes/No	Remarks
*Fire Extinguishing Equipment (See Section 1 for Designation & Register)	Fire Risks Identified and on record <u>Fire Extinguishing Equipment available for:</u> * Offices * General Stores * Flammable Store * Fuel Storage Tank/s * Gas Welding / Cutting operations * Where flammable substances are being used / applied.		
*Maintenance	Fire equipment serviced minimum annually/preferably 6 monthly		
*Location & Signs	<u>Fire Extinguishing Equipment:</u> * Clearly visible * Unobstructed * Sign posted including “No Smoking” / “No Naked Lights” where required. (Flammable store, Gas store, Fuel tanks etc.)		
* Storage Issue & Control of Flammables (incl. Gas cylinders)	Storage Area provided for flammables with suitable doors, ventilation, bund etc. Flammable store neat / tidy and no Class A combustibles. Decanting of flammable substances carried out in ignition free and adequately ventilated area. Container bonding principles applied Only sufficient quantities issued for one day’s usage Special gas cylinder store/storage area. Gas Cylinders stored / used / transported upright and secured in trolley/cradle/structure and ventilated. Types of Gas Cylinders identified/stored separately Full cylinders stored separately from empty cylinders		
*Storage, Issue & Control of Hazardous Chemical Substances (HCS) (See Section 1 for Designation & Register)	HCS storage principles applied: products segregated Provision made for leakage/spillage containment Emergency showers/eye wash facilities provided HCS under lock & key controlled by designated person Decanted/issued in containers with information/warning labels Disposal of unwanted HCS by recognised disposal agent		

11. EXCAVATIONS

Subject	Requirement	Yes/No	Remarks
Excavations deeper than 1.5 m. (See Section 1 for Designation & Register)	Shored / Braced to prevent caving / falling in. Provided with an access ladder. Excavations guarded/barricaded/lighted after dark in public areas Soil dumped at least 1 m away from edge of excavation On sloping ground soil dumped on lower side of excavation		

12. TOOLS

Subject	Requirement	Yes/No	Remarks
*Hand Tools	<u>Shovels / Spades / Picks:</u> * Handles free from cracks and splinters * Handles fit securely * Working end sharp and true <u>Hammers:</u> * Good quality handles, no pipe or reinforcing steel handles. * Handles free from cracks and splinters Handles fit securely <u>Chisels:</u> * No mushroomed heads / heads chamfered * Not hardened * Cutting edge sharp and square <u>Saws:</u> * Teeth sharp and set correctly * Correct saw used for the job		
*Explosive Powered Tools.	Only used by trained / authorised personnel. Prescribed warning signs placed / displayed where tool is in use. Inspected at least monthly by competent person and results recorded.		

Subject	Requirement	Yes/No	Remarks
(See Section 1 for Designation & Register)	Issue and return recorded including cartridges / nails and unused cartridges / nails / empty shells recorded. Cleaned daily after use.		

13. CRANES

Subject	Requirement	Yes/No	Remarks
Tower Crane (See Section 1 for Designation & Register)	Only operated by trained authorised operator with valid certificate of training Structure - no visible defects Electrical installation good/safe Crane hook: Throat pop marked/safety latch fitted/functional SWL/MML displayed Limit switches fitted/operational Access Ladder fitted with backrests/Fall arrest system installed Lifting tackle in good condition/inspection colour coding current		
*Mobile Crane (See Section 1 for Designation & Register)	Only operated by trained authorised operator with valid certificate of training Rear view mirrors Windscreen visibility good Windscreen wipers operating effectively Indicators operational Hooter working Tyres safe/sufficient tread/pressure visibly sufficient No missing Wheel nuts Headlights, taillights operational		
*Mobile Crane continued	Grease nipples and grease on all joints No Oil leaks Hydraulic pipes visibly sound/no leaks No corrosion on Battery terminals Boom visibly in good condition/no apparent damage Cable/sheaves greased/no visible damage/split wires/corrosion		

15. TRANSPORT & MATERIALS HANDLING EQUIPMENT

Subject	Requirement	Yes/No	Remarks
*Site Vehicles	All Site Vehicles, Dumpers, Bobcats, Loaders etc; checked daily before used by driver / operator. Inventory of vehicles used/operated on site Inspection by means of a checklist / results recorded. No persons riding on equipment not designed for passengers. Site speed limit posted and not exceeded. Drivers / Operators trained / licensed.		
Conveyors	No unauthorised persons allowed to drive / operate equipment. Conveyor belt nip points and drive guarded. Emergency stop/lever/brake fitted, clearly marked & accessible.		

16. SITE PLANT AND MACHINERY

Subject	Requirement	Yes/No	Remarks
Brick Cutting Machine	Operator Trained. Only authorised persons use the machine. Emergency stop switch clearly marked and accessible. Area around the machine dry and slip/trip free/clear of offcuts All moving drive parts guarded/electrical supply cable protected Operator using correct PPE - eye/face/hearing/foot/hands/body.		
*Electric Arc Welder	Welder Trained. Only authorised / trained persons use welder. Adequately earthed. Electrode holder in good condition/safe Cables, clamps & lugs/connectors in good condition. Area in which welding machine is used is dry/protected from wet. Welder using correct PPE - eye/ face/foot/body/respirator. Screens & warning signs placed		
*Woodworking Machines	Operators Trained. Only authorised persons use machines.		

Subject	Requirement	Yes/No	Remarks
	Provided with guards. Guards used. Operators using correct PPE - eye/face/foot/hearing		
*Compressors	Relief valves set and locked / sealed. Maximum Safe Working Pressure (MSWP) indicated on face of pressure gauge face: not on glass cover. All drives adequately guarded. Receiver/lines drained daily Hoses good condition/clamped, not wired		
Concrete Mixer / Batch Plant	Top platform provided with guardrails. Dust abatement methods in use. Operators using correct PPE - eye / hands / respirators. All moving drive parts guarded. Emergency stops identified / indicated and accessible. Area kept clean/dry/and free from tripping and slipping hazards. Banksman identified and crane signals displayed and used.		
*Gas Welding / Flame Cutting Equipment	Only authorised/trained persons use the equipment. Torches and gauges in good condition. Flashback arrestors fitted at cylinders and gauges. Hoses in good condition/correct type/all connections with clamps Cylinders stored, used and transported in upright position, secured in trolley / cradle / to structure. Fire prevention/control methods applied/hot work permits		

17. PLANT & STORAGE YARDS/SITE WORKSHOPS SPECIFICS

Subject	Requirements	Yes/No	Remarks
Section 8(2)(1) General Machinery Regulation 2(1): Supervision of the Use & Maintenance of Machinery	Person/s with specific knowledge and experience designated to Supervise the Use & Maintenance of Machinery Critical items of Machinery identified/numbered/placed on register/inventory Inspection/maintenance schedules for abovementioned Inspections/maintenance carried out to above schedules Results recorded		
General Machinery Regulation 9(2): Notices re. Operation of Machinery	Schedule D Notice posted in Work areas		
Vessels under Pressure Regulation 13(1)(b): Supervision of the Use & Maintenance of Vessels under Pressure (VuP)	Person/s with specific knowledge and experience designated to Supervise the Use & Maintenance of VuP's VuP's identified/numbered/placed on register/Manufacturers plate intact Inspection/maintenance schedules for abovementioned Inspections/maintenance carried out to above schedules Results recorded/Test certificates available		
Lock-out Procedure	Lock-out procedure in operation		
Ergonomics	Ergonomics survey conducted – results on record Survey results applied		
Demarcation & Colour Coding	Demarcation principles applied All services, pipes, electrical installation, stop-start controls, emergency controls etc. colour coded to own published or SABS standard Employees trained to identify colour coding		
Portable & Bench Grinders	Area around grinder clear/trip/slip free Bench grinders mounted securely/grinder generally in good condition/No excessive vibration On/Off switch/button clearly demarcated/accessible Adequate guards in place Toolrest – secure/square/max. 2 mm gap Stone/disk - correct type and size/mounted correctly/dressed		

Subject	Requirements	Yes/No	Remarks
	Use of Eye protection enforced		
Battery Storage & Charging	Adequately ventilated, ignition free room/area/no smoking sign/s Batteries placed on rubber/wooden surface Emergency shower/eye wash provided No acid storage in area		
Ancillary Lifting Equipment	Chain Blocks/Tirfors/jacks/mobile gantries etc. identified/ numbered on register Chains in good condition/links no excessive wear Lifting hooks – throat pop marked/safety latch fitted SWL/MML marked/displayed		
Ancillary Lifting Equipment	Chain Blocks/Tirfors/jacks/mobile gantries etc. identified/ numbered on register Chains in good condition/links no excessive wear Lifting hooks – throat pop marked/safety latch fitted SWL/MML marked/displayed		
Presses/Guillotines/Shears	Only operated by trained/authorised persons Interlocks/lock-outs fitted		

18. WORKPLACE ENVIRONMENT, HEALTH AND HYGIENE

Subject	Requirement	Yes/No	Remarks
*Lighting	Adequate lighting in places where work is being executed e.g. stairwells and basements. Light fittings placed / installed causing no irritating/blinding glare.		
*Ventilation	Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.		
*Noise	Tasks identified where noise exceeds 85 dBa. All reasonable steps taken to reduce noise levels at the source. Hearing protection used where noise levels could not be reduced to below 85 dBa.		N/A
*Heat Stress	Measures in place to prevent heat exhaustion in heat stress problem areas e.g. steel decks, when the WBGT index reaches 30. (See Environmental Regulation 4) Cold drinking water readily available when extreme temperatures are experienced.		
*Ablutions	Sufficient toilets provided – 1 per 30 employees (National Building Regulations prescribe chemical toilets for Construction sites) Toilet paper available. Male/ Female use indicated. Sufficient showers provided. Facilities for washing hands provided Soap available for washing hands Means of drying hands available Changing facilities / area provided Ablution facilities hygienic and clean.		
*Eating / Cooking Facilities	Adequate storage facilities provided. Ablution facilities hygienic and clean. Weather protected eating area provided, separate from changing area Refuse bins with lids provided. Facilities clean and hygienic.		
*Pollution of Environment	Measures in place to minimize dust generation. Accumulation of empty cement pockets, plastic wrapping / bags, packing materials etc. prevented. Spillage / discarding of oil, chemicals and diesel into storm water and other drains prevented.		

Subject	Requirement	Yes/No	Remarks
*Hazardous Chemical Substances (See Section 1 for Designation & Register)	All substances identified and list available e.g. acids, flammables, poisons etc. Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available. Substances stored safely.		

Auditor Signature

Date

Received by
Manager/ Supervisor

Date

Tabled at OH&S Committee

C3.5.2

ENVIRONMENTAL MANAGEMENT PROGRAMME (EMP)

C3.5.2.1. SCOPE

The EMP will address the environmental impacts during the design, construction and operational phases of a project. Due regard must be given to environmental protection during the entire road project. In order to achieve this, an environmental Management Programme has been prepared in order to set standards for environmental compliance.

C3.5.2.2 CONTRACTOR'S OBLIGATIONS

The EMP has been prepared by Environmental and Social Consultants NEMAI Consulting. A copy of the EMP is included as Annexure 5.1 to the Contract.

The contractor shall implement his works in such a manner that the environmental impact resulting from his construction activities are managed in accordance with the requirements set out in the EMP.

C3.5.2.3 OBJECTIVES OF THE EMP

The EMP has the following goals:

- Identifying those construction activities that may have a detrimental impact on the environment;
- Detailing the mitigation measures that will need to be taken, and the procedures for their implementation;
- Establishing the reporting system to be undertaken during the construction.

The EMP also serves to highlight specific requirements that will be monitored during the development and should the environmental impacts not have been satisfactory prevented or mitigated, corrective action will have to be taken. The document should, therefore, be seen as a guideline that will assist in minimising the potential environmental impact of activities.

C3.5.2.4 DESIGNATED ENVIRONMENTAL OFFICER

For the purpose of the EMP, a nominated representative of the contractor should be the designated environmental officer for the project. The nominated representative of the contractor will therefore be responsible for ensuring that the provisions of the EMP are complied with. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The environmental officer will submit monthly reports to the engineer on site who will verify the information.

C3.5.2.5 MITIGATION MEASURES

In setting mitigation measures, the practical implications of executing these measures must be borne in mind. With early planning, both the cost and the impacts can be minimised.

MEASUREMENT AND PAYMENT**Item****C100.01 Penalty for unnecessary removal or damage to trees**
for the following diameter sizes

- | | | |
|-----|--|-------------------|
| (a) | 2600mm girth or less | R 5 000 per tree |
| (b) | Greater than 2600mm, but less than 61800mm girth | R 10 000 per tree |
| (c) | Greater than 6180mm girth | R 30 000 per tree |

The unit of measurement shall be the number of trees by diameter removed unnecessary or damaged.

Item**C100.02 Penalty for serious violations**

- | | | |
|-----|--|-----------------------|
| (a) | Hazardous chemical/oil spill and/or dumping in non-approved sites | R 10 000 per incident |
| (b) | General damage to sensitive environments | R 5 000 per incident |
| (c) | Damage to cultural and historical sites | R 5 000 per incident |
| (d) | Pollution of water sources | R 10 000 per incident |
| (e) | Unauthorised blasting activities | R 5 000 per incident |
| (f) | Uncontrolled/unmanaged erosion
(Depending on environment impacts, plus Rehabilitation at Contractor's cost) | R 1 000 per incident |
| (g) | Damage to sensitive vegetation within "no-go" areas
(Depending on vegetation damaged, plus rehabilitation thereof at Contractor's cost) | R 5 000 per incident |

The unit of measurement shall be the number of serious violation incidents.

Item**C100.03 Penalty for less serious violations**

- | | | |
|-----|--|----------------------|
| (a) | Littering on site: | R 1 000 per incident |
| (b) | Lighting of illegal fires on site | R 1 000 per incident |
| (c) | Persistent or un-repaired fuel and oil leaks | R 1 000 per incident |
| (d) | Any person related to the Contractor's operations found within the designated "no-go" areas | R 500 per incident |
| (e) | Any vehicles or equipment related to the Contractor's operations found within the designated "no-go" areas | R 3 000 per incident |
| (f) | Excess dust or excess noise emanating from site | R 1 000 per incident |
| (g) | Dumping of milled material in side drains or on grassed areas | R 1 000 per incident |
| (h) | Possession or use of intoxicating substances on site | R 500 per incident |
| (i) | Any vehicles being driven in excess of designated speed limits | R 500 per incident |
| (j) | Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife | R 2 000 per incident |
| (k) | Illegal hunting | R 2 000 per incident |

- (l) Urination and defecating anywhere except in designated areas R 500 per incident

The unit of measurement shall be the number of serious violation incidents.

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

C3.5.3 MANAGEMENT MEETINGS

The following meetings will be required as the minimum for the management of the contract.

- a) Monthly client site meeting (using standard agenda for management control).
- b) Technical meetings as required for each phase of the work.
- c) Monthly safety meetings in terms of the OHS requirements.
- d) Weekly progress meetings.

C3.5.4 QUALITY CONTROL

The Contractor shall submit details of his quality plan and procedures. These shall include:

- a) The contractor's accommodation of traffic planning, approval monitoring, record keeping and maintenance.
- b) Planning and procedures to be followed for inspection and testing.
- c) The approval process.



TENDER NO. DRT 02/09/2020

THE REHABILITATION OF ROAD P122/1 FROM KM 8,4 (OLIFANTSFONTEIN) TO KM 17,8 (SOLOMON MAHLANGU DRIVE) - APPROXIMATELY 9,4 KM.

PART C4: SITE INFORMATION

C4.1	EXTRACT FROM THE TRANSPORT INFRASTRUCTURE ACT 2001 (ACT NO. 8 OF 2001)	C4.2
C4.2	SITE INFORMATION	C4.5
C4.3	LOCALITY PLAN	C4.6



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C4.1 EXTRACT FROM THE TRANSPORT INFRASTRUCTURE ACT 2001 (ACT NO. 8 OF 2001)

The term “MEC” shall be interpreted to mean the “Member of the Executive Council for Public Transport, Roads and Works in the Gauteng Province”.

The Member of the Executive Council for Public Transport, Roads and Works in the Gauteng Province has made the regulations set out in the Schedule in terms of the Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001).

ENTRY UPON OR TAKING POSSESSION OF LAND FOR CERTAIN PURPOSES

20. (1) Subject to subsections (2), (4), (5) and (6), the MEC may enter upon any land with the necessary workers, machines, vehicles, equipment, tools, instruments or materials to perform or carry out on, below the surface of or in connection with that land, an investigation, survey, observation or other act that the MEC deems necessary for or in connection with the construction or maintenance of any transport infrastructure or take possession temporarily of land for a purpose in connection with the construction or maintenance of such infrastructure.
- (2) Where the owner or occupier of the land has not consented to the MEC acting in terms of subsection (1), the MEC must give the owner or occupier of the land written notice of the MEC's intention so to act not less than seven days before the land is entered, setting out the purpose for which entry upon the land is authorized, the acts that may be performed on the land in connection with that purpose and the persons by whom, the means whereby or the manner in which they are to be performed.
- (3) If the owner or occupier objects to the proposed actions, he or she may state those objections in writing not less than 48 hours before the proposed entry on the land, in which case the MEC must consider the objections. If the MEC is of the opinion that the objections are not well founded or it is in the public interest to act in spite of the objections, the MEC must notify the owner or occupier accordingly before entering on the land.
- (4) The provisions of subsection (1) may not be used to gain access to a dwelling house or other building on the land in use for residential purposes unless the occupier of the house or other building agrees to the MEC entering it for the purpose of performing or carrying out therein an activity mentioned in subsection (1).

CAMPS, STORAGE OF MATERIALS, TAKING OF WATER

20. (5). Where the MEC in terms of subsection (1) takes possession temporarily of land for -
- (a) the erection or construction of a building, hut, tent or other structure for the accommodation of workers employed on transport infrastructure or executing other work in connection therewith;
 - (b) the storing thereon of stores, plant, machinery, equipment or anything else the MEC deems necessary for the construction and maintenance of transport infrastructure, the MEC must pay to the owner rental as is agreed upon, or, failing agreement as determined in accordance with section 30, in which case costs shall be calculated and awarded in accordance with section 31.

OPENING OF FENCES AND ROADS TO QUARRIES

20. (6) For the purpose of exercising the rights under this section, the MEC may, after notice to the owner, make roadways or openings in fences, walls and hedges, provided that such openings must be effectively closed against trespassing or straying animals during the operations and the fence properly restored on completion of the work, and that any excavation made in the course of the work which may be a source of danger must be securely fenced off, filled in or otherwise rendered safe on completion of the works.

ACQUISITION OF MATERIAL

21. (1) The MEC may, subject to subsection (2), take and remove or cause to be taken and removed from land material which is necessary for the construction or maintenance of transport infrastructure, and may take possession temporarily of such land for the purpose of acquiring the material.

ADMINISTRATOR MAY SELECT PLACE FOR OBTAINING MATERIAL

21. (2) (a) The MEC may select a place from which the material contemplated in subsection (1) may be taken, and must give the owner notice of the place; and
- (b) the owner may, within 14 days after receipt of the notice, point out another place within the same cadastral boundaries on the land concerned and if the MEC is of the opinion that the other place is suitable and accessible and will provide suitable material, the materials must be taken from the place pointed out by the owner.
- (3) Where the MEC takes material under this section, the MEC must restore or rehabilitate the land in accordance with applicable environmental laws and -
- (a) where such restoration or rehabilitation does not have the effect of restoring the land entirely to its former state; or
 - (b) where the owner has suffered loss or damage by the taking of the material;

the MEC must pay to the owner such compensation for any loss or damage to the land, as may be agreed or failing agreement as determined in accordance with section 30, in which case costs shall be calculated and awarded in accordance with section 31.

- (4) Section 20(6) shall apply to the taking of material under this section.

CONTRACTORS MAY EXERCISE RIGHTS

56. (2) Subject to subsection (3), a power or duty granted to the MEC, provided that where compensation is payable as a result of exercising the right or power, it may be recovered from the MEC who may in turn recover it from the contractor or agent.

“MEC” INCLUDES AUTHORISED AGENT”

56. (2) Subject to subsection (3), a power or duty granted to the MEC, provided that where compensation is payable as a result of exercising the right or power, it may be recovered from the MEC who may in turn recover it from the contractor or agent.

OBSTRUCTION OF MEC

52. (1) Despite any other law, but subject to subsection (4), no person or institution, including an organ of state as defined in section 239 of the Constitution, may, unless authorized by this Act –
- (o) obstruct or hinder the MEC or an official, employee or agent of the Department or another person authorized by the MEC in the execution of his or her duties under this Act;
- (2) A person who contravenes a provision of subsection (1) or any other provision of this Act that is not elsewhere declared to be an offence, commits an offence.



TENDER NO. DRT 02/09/2020

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C4.2 SITE INFORMATION - GENERAL

Site information is incorporated in C3 Scope of Work.

The Pavement Design Plans incorporate the results of soil testing conducted along the centre line of the new carriageway.

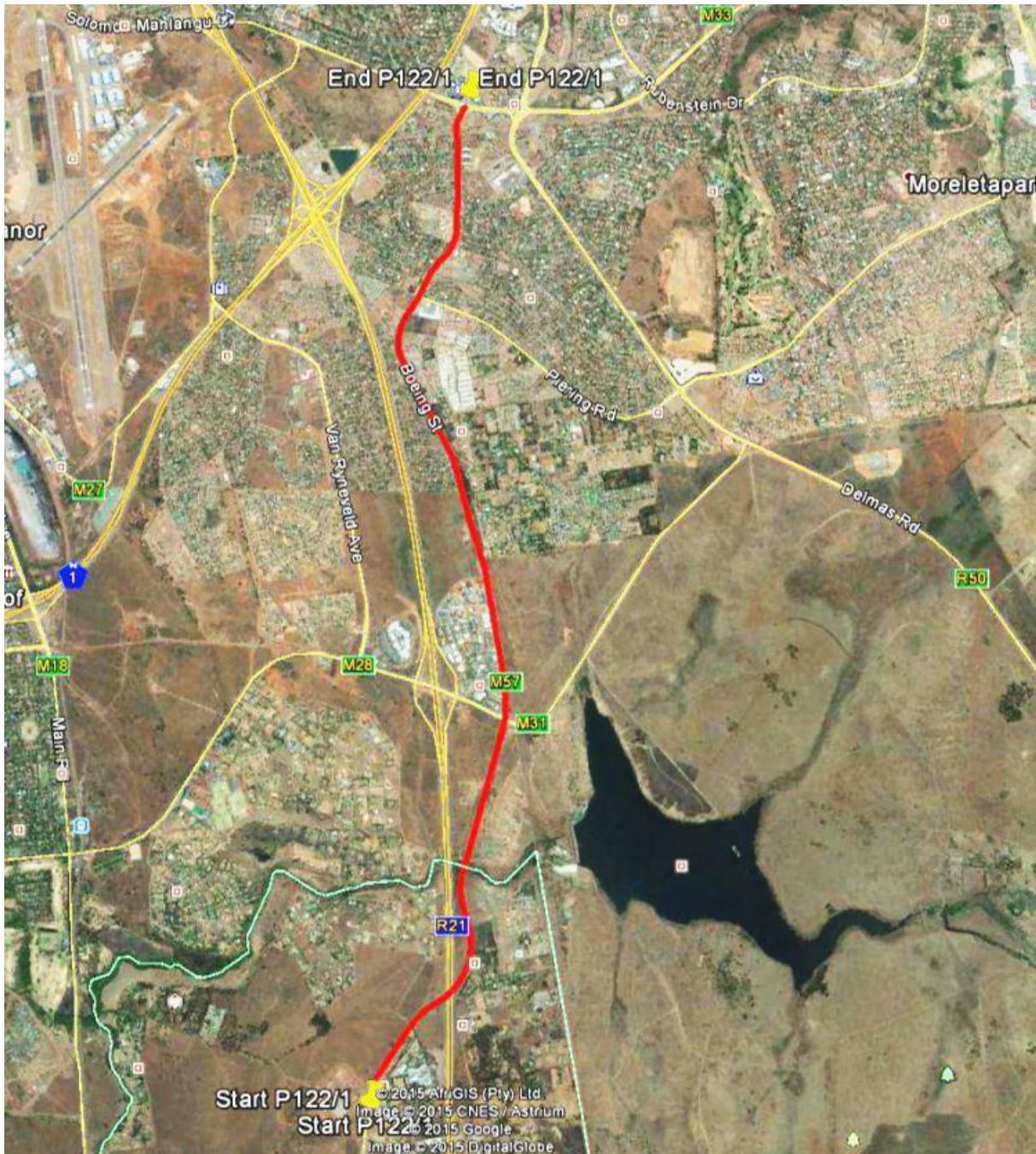
The site is located in a dolomitic area. A geotechnical investigation and report on this subject is available from the Engineer, on request.



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C4.3 LOCALITY PLAN





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C5: ANNEXURES