



MARULENG MUNICIPALITY


CONTRACT NO: MLM/SCM/63/2024 (Re-Advert)

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

TENDER DOCUMENT

CLOSING DATE: 12 May 2025 at 11H00

CIDB GRADING: 7 CE or HIGHER

ISSUED FOR: THE MUNICIPAL MANAGER MARULENG LOCAL MUNICIPALITY P O BOX 627 HOEDSPUIT 1380 CONTACT DETAILS: Contact: Mr M. L. Muroa Tel: 015 590 1650 E-mail: muroal@maruleng.gov.za	ISSUED BY: MORWA CONSULTING ENGINEERS. 06 HANS VAN RENSBURG JCJ LIMPRO UNIT 7 POLOKWANE 0700 TEL: 015 291 1262  CONTACT DETAILS: TECHNICAL: Mr. M. J. Mphaho EMAIL: mahlatse@morwa.co.za
FULL NAME OF BIDDER (BIDDING ENTITY (i.e. CC, PTY, LTD, JV, etc.))	
THE OFFERED TOTAL OF THE PRICES (Including Value Added Tax)	
THE OFFERED TOTAL OF THE PRICES (Above amount in words)	
CIDB GRADING LEVEL:	CIDB CRS NUMBER (S):
CIDB GRADING LEVEL:	CIDB CRS NUMBER (S):
JV GRADING LEVEL:	



PROJECT NAME: CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CONTRACT NO: MLM/SCM/63/2024 (Re-Advert)

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PART T1: BIDDING PROCEDURES

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VERY IMPORTANT NOTICE ON DISQUALIFICATIONS:

A bid not complying with the peremptory requirements stated hereunder will be regarded as not being an "Acceptable bid", and as such will be rejected.

The municipality shall adjudicate and award Bids in accordance with the Preferential Procurement Policy Framework Act 5/2000 and revised Preferential Procurement Regulation 2022 in accordance with 90/10 points system, where 90 points are for the price and 10 points for Specific Goals in terms of the SCM Policy.

Valid Registration with CSD

If any pages have been removed from the bid document, and have therefore not been submitted, or a copy of the original bid document has been submitted. Failure to complete the schedule of quantities as required, i.e. only lump sums provided.

Scratching out, writing over or painting out rates, without initialling next to the amended rates or information, affecting the evaluation of the bid.

Not initialling all the pages including the cover page and drawings.

The use of correction fluid (i.e. tippex) or any erasable ink, e.g. pencil.

Non-attendance of mandatory/compulsory:

Site inspections or;

Information/Clarification meetings

The Bid has not been properly signed by a party having the authority to do so, according to the example of "Authority for Signatory".

No authority for signatory submitted – See example, where it is stated that a duly signed and dated original or certified copy of the company's relevant resolution **(for each specific bid)** of their members or their board of directors, must be submitted.

Please make use of table 1 in MBD 6.1 to claim points for specific goals. Non completion thereof will be interpreted to mean that specific points are not claimed

Very important notice Bidders must note that only information filled in at the spaces provided therefore in the bid document will be considered for evaluation purposes unless additional space is required and then only if the location of the additional information in the attachments is properly referred to by page number and section heading. Information supplied anywhere else will be disregarded which **may** lead to the rejection of the bid. **The attachment or inclusion of information not specifically asked for is not desirable and lead to delays in the awarding of bids.**

Bidders should also note that all tables and forms should be filled in even if the information is attached in the annexures. Bidder should not write refer to as it will lead to disqualifications

The bidder attempts to influence, or has in fact influenced the evaluation and/or awarding of the contract

The bid has been submitted either in the wrong bid box or after the relevant closing date and time.

Failure to provide a valid certificate from the Department of Labour, or a declaration (Specific goals – "Equity ownership") by a designated employer that it complies with the Employment Equity Act 55 of 1998.

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Bidders will be disqualified if any municipal rates and taxes or municipal service charges owed by the bidder and any of its directors to the municipality, or to any other municipality or municipal entity or are in arrears for more than three months.

If any bidder who during the last five years has failed to perform satisfactorily on a previous contract with the municipality, municipal entity or any other organ of state after written notice was given to that bidder that performance was unsatisfactory.

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

who is in the service of the state, or;
if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder, is a person in the service of the state; or;
who is an advisor or consultant contracted with the municipality in respect of contract that would cause a conflict of interest.

Failure to provide: A copy of valid registration with the CIDB, in an appropriate contractor grading designation (category), as required in the bid documentation (or in the case of a joint venture, of all the partners in the joint venture).

Bid offers will be rejected if the bidder or any of his directors is listed on the Register of Bid 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.

Bid offers will be rejected if the bidder has abused the MLM's Supply Chain Management System and action was taken in terms of paragraph 38 of the MLM SCM Policy.

If at any time during the project implementation phase the rates or prices are found to be abnormal, irregular and or not market related among other things, the engineer may after written approval from the municipality revise them to a practical or market related rate. The amount on the form of offer will be considered as the final cost of works.

Form of offer not completed and signed by the authorised signatory.

The letter of intent to issue guaranteed must completed and the letter of guarantee attached

All the attachments should not be older than 6 months

No submission of financial statements or audited financial statements required, unless if the bided amount is above R 10m

Complete all questionnaires; spaces or Spaces, if the item is not applicable to you, mark it, not applicable. Sign all pages.

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NOTE:

IN THIS DOCUMENT AND OTHER DOCUMENTS REFERRED TO BUT NOT ATTACHED, THE FOLLOWING WORDS ARE SYNONYMOUS WITH EACH OTHER.

CLIENT, EMPLOYER, MARULENG MUNICIPALITY (MLM).

BID, BID AND VARIATIONS THEREOFF

JOINT VENTURE / CONSORTIUM

SUMMARY FOR BID OPENING PURPOSES

NAME OF BIDDING ENTITY:

.....

PHYSICAL STREET ADDRESS:	POSTAL ADDRESS:

TELEPHONE NUMBER :

FAX NUMBER :

E-mail ADDRESS :

CONTRACT PRICE : R

(Amount brought forward from the Form of Offer and Acceptance) *

Signed by authorised representative of the Bidding Entity:

DATE:

Should any discrepancy occur between this figure and that stated in the Form of Offer and Acceptance, the latter shall take precedence and apply.

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T1.1: BID NOTICE AND INVITATION TO BID

BID NUMBER: TBC

Bids are hereby invited for the **CONSTRUCTION OF MADEIRA ACCESS ROAD IN MARULENG MUNICIPALITY IN LIMPOPO.**

Bid Number	Bid Description	Compulsory Briefing/Site Clarification Date & Time	Non-refundable bid document fee (VAT included)	Other Requirements	Closing Date	Minimum Number of Work Opportunities to be created	Contact Person
MLM/SCM/63/2024	CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01	11 April 2025 @ 10:00 Thusong Service Centre S 24°14'28.79" E 30°26'49.24"	PURCHASED OR DOWNLOADED R500.00	7 CE or Higher	12 May 2025 @ 11:00	45	Mr M. L. Muroa Or Phiri K. 015-590 1650

Bid documents are available from the office of the Supply Chain Management, Maruleng Municipality.

It is estimated that tenderers should have a CIDB contractor grading of **7 CE** or higher.

Only bidders who comply with the following requirements are eligible to submit bids:

Register with CIDB and having a grading of **7 CE or Higher**

Bids will be evaluated on the 90/10 points system

Bids will be evaluated on the functionality with a minimum qualifying score of 70 points.

	TARGETED GOALS:	POINTS
Points for functionality	COMPANY EXPERIENCE	60
	KEY PERSONNEL	20
	PLANT SCHEDULE	10
	FINANCIAL CAPACITY	10
	TOTAL	100

Only bidders who can demonstrate that they will have in their employ staff which satisfies EPWP requirements during the contract validity are eligible to submit bids.

Bid documents can be obtainable as from **11 April 2025** at the offices of Maruleng Municipality (65 Springbok Street, Hoedspruit, 1380), or be downloaded at a non-refundable amount of **R500.00** only cash or bank guaranteed cheque made out to Maruleng Municipality will be acceptable.

A compulsory briefing session will be held on the 11 April 2025 at 10H00 at Thusong Service Centre

All bids will remain valid for a period of ninety days after the time and date of opening. Late submissions, telegraphic, telegraphic or e-mail transmission bid will not be accepted. **Maruleng Municipality** does not bind itself to accept the lowest or any bid and reserves the right to accept a bid as a whole or in part.

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N.B NONE ATTENDANCE TO BRIEFING SESSION IS AN AUTOMATIC DISQUALIFICATION

All bids and supporting documents must be sealed in a cover clearly Marked "**BID No. MLM/SCM/63/2024 (Re-Adert)**" for the **CONSTRUCTION OF MADEIRA ACCESS ROAD** and must be deposited in the bid box at **Maruleng Municipality, 65 Springbok Street, Hoedspruit, 1380, not later than 11:00 on 12 May 2025**

Supply Chain Management related enquiries can be directed at Mr. K Phiri at 015 590 1650 from the procurement office of Maruleng Municipality.

Technical related enquiries can be directed to, Mr Lesley Muroa from technical services office of Maruleng Municipality on 015 590 1650

Mr ML Muroa
Acting Municipal Manager
Maruleng Municipality

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T1.2: BID DATA

The Conditions of bid in the Standard Conditions of bid as contained in Annex F of SANS 294 – *Construction Procurement Processes, Methods and Procedures* contains references to the bid Data for details that apply specifically to this bid.

The BID Data shall be read with the Standard Conditions of bid in order to expand on the Bidder's obligations and the Employer's undertakings in administering the bid process in respect of the project under consideration.

The BID Data hereafter shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of bid.

Each item of bid Data given below is cross-referenced to the relevant clause in the standard Conditions of BID.

Clause Number	Tender Data
3.1	<p>The Employer is: MARULENG MUNICIPALITY</p> <p>The Employer's (permanent physical business address) is: 65 Springbok Street HOEDSPRUIT 1380.</p> <p>The Employer's address for communication relating to this project is: P O BOX 627 HOEDSPRUIT 1380</p>
3.2	<p>The tender documents issued by the Employer comprise:</p> <p>THE TENDER</p> <p>Part T1 Tendering procedures</p> <p>T1.1 Tender Notice and Invitation to Tender</p> <p>T1.2 Tender Data</p> <p>Part T2 Returnable documents</p> <p>T2.1 List of returnable documents</p> <p>T2.2 Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1 Agreements and Contract Data</p> <p>C1.1 Form of Offer and Acceptance</p> <p>C1.2 Contract Data</p> <p>C1.3 Form of Guarantee</p> <p>C1.4 CIDB Adjudicator's appointment</p>

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Clause Number	Tender Data
	<p>Part C2 Pricing Data</p> <p>C2.1 Pricing Instructions</p> <p>C2.2 Bill of Quantities</p> <p>Part C3 Scope of Work</p> <p>C3.1 Project Scope of Work</p> <p>C3.2 Tender Drawings</p> <p>Part C4 Site Information</p> <p>C4.1 Extract from Transport Infrastructure Act 2001 (Act No 8 of 2001)</p> <p>C4.2 Locality Plan</p> <p>Part C5 Annexures</p> <p>C5.1 Annex I – Environmental Management Plan</p> <p>C5.2 Annex II – Abstracts of the Mine Health and Safety Act No 29 of 1996 and Amendment Act No 72 of 1997</p> <p>C5.3 Annex III – Borrow Pit Guarantee</p> <p>C5.4 Annex IV – Health and Safety Specification</p>
3.4	<p>The Employer's Agent is:</p> <p>Contact person: Mahlatse Mphaho</p> <p>Name: Morwa Consulting Engineers</p> <p>Address: 06 Hans Van Rensburg, JCJ LIMPRO Unit 07 Polokwane 0700</p> <p>Tel: 015 291 1262</p> <p>Email: mahlatse@morwa.co.za</p>
3.4	The language for communications is: English
4.1.1	<p>Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:</p> <p>Only those tenderers who score the minimum score in respect of the quality criteria stated in 5.11.9 of this Tender Data shall be considered responsive and have their tenders evaluated further.</p> <p>a) CIDB registration</p> <p>The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <p>(i) Contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a (insert correct grading) class of construction work; and</p> <p>(ii) Contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of (a) above and who satisfy the following criteria:</p>

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	<p>(1) the Employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB <i>Specification for Social and Economic Deliverables in Construction Works Contracts</i>; and</p>
4.1.1	<p>(2) the Employer agrees to provide the financial, management or other support that is considered appropriate to enable the Contractor to successfully execute that Contract.</p> <p>Joint ventures are eligible to submit Tenders provided that:</p> <p>(1) every member of the joint venture is registered with the CIDB;</p> <p>(2) the lead partner has a contractor grading designation in the 7 CE class of construction work; and</p> <p>(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 7 CE or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.</p> <p>b) National Treasury Central Supplier Database</p> <p>Tenderers who are not registered on the National Treasury Central Supplier Database at close of tender, shall submit a copy of their application of registration, with their tender submission. Tenders received from such tenderers who have not submitted proof of their registration within 21 days after the closing date for tender submissions, will not be considered.</p> <p>c) Local content</p> <p>Only locally produced or locally manufactured products and components for construction with a minimum threshold for local content and production will be considered.</p> <p>d)Key Personnel</p> <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.</p> <p>Individuals must be identified and their names listed in Form D3 for each of the key personnel listed below.</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 D3 with personnel with equivalent competencies, subject to approval by the Employer. Such approval shall not be unreasonably withheld.</p> <p>Tenderers who can demonstrate that they will have in their employ during the contract period the necessary personnel satisfying the requirements of the Scope of Work for labour-intensive competencies for management and supervisory personnel.</p> <p>financial viability</p> <p>Tenderers who are under business rescue or liquidation.</p>
4.1.2	It is an absolute requirement that the taxes of the successful tenderer <u>must</u> be in order, or that

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Clause Number	Tender Data
	suitable arrangements have been made with the Receiver of Revenue to satisfy them.
4.1.2	<p>If the Tax Clearance Certificate is found to be incorrect, Maruleng Municipality may, in addition to any other remedy it may have: -</p> <p>Recover from the Contractor all costs, losses or damages incurred or sustained by the State as a result of the award of the contract; and/or</p> <p>Cancel the contract and claim any damages which the State may suffer by having to make less favorable arrangements after such cancellation; and/or</p> <p>Each party to a Consortium / Joint Venture / Sub-Contractors must attach their Proof of SARS TCP PIN Certificate from the Receiver of Revenue.</p>
4.5.2	<p>Tenderers are hereby earnestly warned that, in terms of section 23(1) of the Roads Ordinance of Transvaal (Ordinance No. 22 of 1957, as amended), it is absolutely essential that the owners of property be advised accordingly.</p> <p>Unless the provisions of this section are strictly adhered to, the acquisition of material may be illegal and could result in a claim by the owner, inter alia that the property be restored to its original condition by the Contractor.</p>
4.5.3	Where reference is made to the standard specifications in the contract documents, it shall mean the COLTO Standard Specifications for Road and Bridge Works (1998).
4.6	Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender 5.8.
4.7	A compulsory briefing session will be held on the 11 of April 2025 at 10H00 at Thusong Service Center.
4.8	Request clarifications at least 14 working days before the closing date (12 May 2025) .
4.10	Tenderers are required to state the rates and currencies in Rand.
4.11.2	<p><u>Tenders submitted in accordance with these tender documents shall not have any qualifications.</u> Any point of difficulty of interpretation shall be cleared with the Employer's Agent as early as possible before submission of a tender. Should any query be found to be of significance, all tenderers will be informed accordingly by the Employer's Agent as early as possible.</p> <p><u>Tenders shall not be qualified by the conditions of tender of the tenderer himself.</u> Failure to comply with this requirement may cause the tender to become invalid.</p> <p>Should the tenderer, notwithstanding the above, wish to make any amendment or qualification of the tender documents, such amendment or qualification shall be set out explicitly in full details on Form A4. Any qualification or amendment not set out on the prescribed form will not have any force and effect despite the fact that it may be contained elsewhere in the tender documents or in the covering letter to the tender. Any qualification or amendment appearing in or to be inferred from a program and submitted with any tender will not have any force and effect unless set out in writing in accordance with the above requirements.</p>
4.12	If a tenderer wishes to submit an alternative tender offer, the tenderer shall in addition to the conforming Tender submit a separate complete set of Tender Documents clearly marked as an

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	<p>"Alternative Tender" in order to distinguish it from the unqualified Tender. The only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate if the efficacy of the alternative complies with the Employer's standards and requirements and its principal elements, to take a view on the degree to which the alternative and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the Contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p>
4.13.2	Parts of each tender offer communicated on paper shall be submitted as an original, plus NIL copies.

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Clause Number	Tender Data
4.13.4	<p>The tenderer is required to submit the following:</p> <p>The tenderer is required to submit the following with his tender</p> <ol style="list-style-type: none"> (1) An SARS TCP PIN issued by the South African Revenue Services; and (2) Proof of Contractor Registration drawn from the Construction Industry Development Board website should be attached to Returnable Schedule Form A12; (3) Evidence of registration and proof of good standing with a compensation insurer who is approved by the Department of Labour in terms of Section 80 of the Compensation for Occupational Injuries and Diseases Act (Act No 130 of 1993) (COID). The tenderer is required to disclose all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the tenderer at a time during the 36 months preceding the date of this Tender; (4) Proof of Registration in respect of each partner, where a tenderer satisfied the CIDB contractor grading designation requirements through the formation of a joint venture;
4.13.5	Submit only the signed "Original" Tender offer.
4.13.6	<p>Place and seal the printed and completed tender document in an envelope clearly marked "TENDER" and bearing the Employer's name, the contract number and description, the tenderer's authorized representative's name, the tenderer's postal address and contact telephone numbers.</p> <p>Telephonic, facsimile or emailed tender offers will not be accepted.</p>
4.13.7	The Maruleng Municipality is not bound to accept the lowest or any tender and reserves the right to accept the whole or any part of a tender.
4.13 4.15	<p>The Employer's address for the delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of tender box: Municipal Offices Physical address: Maruleng Municipality 65 Springbok Street HOEDSPRUIT, 1380.</p> <p>Identification details: Place the signed original tender offer in a package marked Contract No CONTRACT NO: MLM/SCM/63/2024 for the CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01</p> <p>Tenders must be submitted during office hours (08:00 to 16:00 hrs) Monday to Friday at the Employer's address.</p>
4.15	The closing time for submission of tender offers is 11:00 on the 12 May 2025

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4.16.1	The tender offer validity period is 90 days calculated from the tender closure date.
4.16.2	<p>Where a tenderer, at any time after the opening of his tender offer but prior to entering into a contract based on his tender offer:</p> <p>(a) withdraws his tender;</p> <p>(b) gives notice of his inability to execute the contract in terms of his tender; or</p> <p>such tenderer shall be barred from tendering on any of the Employer's future tenders for a period to be determined by the Employer, but not less than six (6) months, from the date of tender closure. The Employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.</p>
4.18	<p>Any additional information requested under this clause must be provided within 5 working days of the date of request.</p> <p>The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labor-intensive portion of the Works together with satisfactory evidence that such staff members satisfy the eligibility requirements.</p>
4.19	No access for tests and inspections are required during the tendering period.
4.20	The tenderer must submit to the Employer the names of all management and supervisory staff that will be employed to supervise the labor-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirement.
	<p>The Employer's right to accept or reject any bid offer.</p> <p>The Employer is not obliged to accept the lowest or any bid offer.</p>
5.1	The Employer shall respond to clarifications received up to 7 working days before the tender closing time.
5.4	Tenders will not be opened after the closing time for tenders.
	<p>Location: Maruleng Municipality 65 Springbok Street HOEDSPRUIT, 1380.</p>
5.5	The two-envelope system will not be followed for this Tender.
5.7	In the event of disqualification, the Employer may, at his sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to the CIDB and National Treasury.
5.11.7	<p>The value of W1 is:</p> <p>1) 90 where the financial value, inclusive of VAT, of all responsive tender offers received has a value in excess of R50 000 000,00; or</p> <p>2) 80 where the financial value, inclusive of VAT, of one or more responsive tender offers has a value that equals or is less than R50 000 000,00.</p>

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	<p>The value of A will be calculated utilizing the following formula:</p> $A = (1 - (P - P_m) / P_m)$ <p>Where P is the comparative offer of the tender offer under consideration and 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>
5.11.9	<p>1. EVALUATION OF TENDER OFFERS</p> <p>Evaluation of bid Offers Bidders will be evaluated on quality, price and preference. It is important that the relevant information is included to enable the Technical Proposal to be evaluated in accordance with the procedure outlined below. All information must be submitted in a separate file. Tampering with the original Bid document will render the Bid non-responsive. Failure to comply with the above requirements will result in the Bid being disqualified. The Bid evaluation will be conducted as follows:</p> <p>(a) First</p> <p>Bid documents that have been disassembled and copies of the Bid documents will be disqualified outright.</p> <p>(b) Second</p> <p>Bidders will be checked for compliance with Bid Conditions and administrative responsiveness. Non-compliance with any of the requirements will render the Bid non-responsive and it will not be carried forward to the next stage.</p> <p>(c) Third</p> <p>The Bidder's experience, staffing and methodology will be evaluated. Each Bid will be assessed and awarded points for Functionality. Failure to achieve 70 points out of the 100 for Functionality will render the Bid non-responsive.</p> <p>Only Bidders that score the specified minimum number of points for Functionality will be deemed to be acceptable and carried forward to the next stage. The rest will be disqualified. The points for functionality will not be carried forward to the remainder of the evaluation. (Refer to 2(b) below)</p> <p>(d) Fourth</p> <p>Points will be calculated for price on the relevant prices in accordance with the preference point system, 90/10.</p> <p>(f) Final</p>

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Clause Number	Tender Data
	<p>The Bid will be awarded to the short listed Bidder who has scored the highest points for price and (Specific Goals), unless there are justifiable, objective reasons to award the Bid to another Bidder. However, the Employer retains the right not to accept any or the lowest Bid. Refer to (2e) below)</p> <p>2. EVALUATION PROCESS AND CRITERIA</p> <p>The following evaluation process and criteria will be used to evaluate all bids submitted:</p> <p>2.1 Administrative Compliance – Phase One</p> <p>All bids duly lodged will be examined to determine compliance with bidding requirements and conditions. Bids with obvious deviations from the requirements/conditions, will be eliminated from further evaluation.</p> <p>Critical Criteria: The following critical criteria have been identified for this bid and any non-compliance thereto will lead to the bid being regarded as non-responsive and disqualified from further evaluation:</p> <p>Administrative compliance</p> <p>Proof purchase of Tender Document</p> <p>Provide Compliant Central Supplier Database (CSD) report.</p> <p>Proof of SARS TCP PIN.</p> <p>Valid B-BBEE Certificate or Sworn Affidavit</p> <p>All Pages of the Bid document must be initialled.</p> <p>Attach CK (Company registration certificate)</p> <p>Form A – Certificate of attendance at site inspection, to be signed in the Bid document or Signature onsite inspection attendance register.</p> <p>Form B – Certificate of Authority for Signature. For JV's a JV Agreement shall be provided (if applicable)</p> <p>Signed J/V agreement must be attached (Where applicable)</p> <p>COMPLETED AND SIGNED MBD FORMS</p> <p>Completed and signed MBD1</p> <p>Completed and signed MBD3.1</p> <p>Completed and signed MBD3.2</p> <p>Completed and signed declaration of interest (MBD4)</p> <p>Complete and signed (MBD 5)</p> <p>Completed and signed (MBD 6.1)</p> <p>Completed and signed declaration on past SCM practices form (MBD8)</p> <p>Completed And Signed MBD9</p> <p>Compulsory enterprise questionnaire completed.</p> <p>Submit three years audited Annual financial statements (AFS) – (only where the tender amount exceeds R10Mil- including VAT)</p> <p>Proof of Municipal Rates and Taxes or letter for Tribal Authority or lease agreement accompanied</p>

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Clause Number	Tender Data												
	<p>with proof of payment of the lessee and rates and taxes of the lessor /letter (company and Directors) must be attached (Not older than 3 months) for both company and Director.</p> <p>Form F – Record of addenda to Bid documents.</p> <p>Form I – Certificate of non- collusive Bid</p> <p>Form J – Compliance with Occupational Health and Safety Act (Letter of good standing COIDA)</p> <p>Letter of intent of contract performance guarantee</p> <p>Form L – Compulsory enterprise questionnaire.</p> <p>Form Q – Declaration of good standing regarding tax</p> <p>Form N – Financial details, statements and bank references.</p> <p>Form U– Declaration of bidder’s past supply chain management practices.</p> <p>Form R – Declaration of interest</p> <p>Form W – Construction industries development board registration. (Proof of registration with CIDB attached and relevant grading to be attached)</p> <p>Form C1.1 – Form of Offer and Acceptance (Other documents that may be used)</p> <p>Contract Data Section 2: Data provided by the contractor</p> <p>Failure to comply with the Bid Conditions or to supply the necessary information at Bid closure WILL result in the Bid being rejected. Non submission of any of the forms listed above will result in the Bid being rejected as non-responsive.</p>												
2.2 Functionality – Phase Two (100 points allocation)													
<p>The bidders who complied administratively are considered for further evaluation on ability to execute the project.</p> <p>The assessment of functionality will be done in terms of the evaluation criteria and minimum threshold as specified. A bid will be disqualified if it fails to meet the minimum threshold for functionality as per the bid invitation.</p> <p>(a) Second Stage in Evaluation: Quality or Functionality: Points System</p> <p>It is important that the Bidder provides information as requested as this information will be used for functionality in which a minimum of 70 points must be scored to move to the next stage of evaluation.</p> <table><tr><td></td><td>TARGETED GOALS:</td><td>POINTS</td></tr><tr><td rowspan="4">Points for functionality</td><td>Company’s Experience</td><td>60</td></tr><tr><td>Specific Personnel Knowledge</td><td>20</td></tr><tr><td>Financial status</td><td>10</td></tr><tr><td>Plant & equipment</td><td>10</td></tr></table>			TARGETED GOALS:	POINTS	Points for functionality	Company’s Experience	60	Specific Personnel Knowledge	20	Financial status	10	Plant & equipment	10
	TARGETED GOALS:	POINTS											
Points for functionality	Company’s Experience	60											
	Specific Personnel Knowledge	20											
	Financial status	10											
	Plant & equipment	10											
<p>The scoring will be according to the table below</p> <table><tr><td></td><td>FUNCTIONALITY EVALUATION CRITERIA</td><td></td><td></td></tr></table>			FUNCTIONALITY EVALUATION CRITERIA										
	FUNCTIONALITY EVALUATION CRITERIA												

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Clause Number	Tender Data				
	COMPANY EXPERIENCE				
	<p>Bidders must complete company experience and add certified supporting documentation.</p> <p>Failure to submit required FINAL COMPLETION CERTIFICATE will result in the bidder getting zero points.</p> <p>NB: Final Completion certificates must be signed by all parties namely: the employer, Engineer, and the contractor (certificates that is not signed by ALL relevant parties will result in the bidder forfeiting points)</p>	CONTRACTS MANAGER	SCORING CRITERIA	WEIGHT	SCORE
			Five (05) largest completed road construction or rehabilitation projects with final completion certificate attached (and construction appointment letters, will be assessed as follows	5	
			Completed projects with value of < R 5 million - 1 Points each		
			Five (05) largest completed road construction or rehabilitation projects with final completion certificate attached (and construction appointment letters, will be assessed as follows	20	
			Completed projects with value of R 5 million to R 10 million- 4 Points each		
			Five (05) largest completed road construction or rehabilitation projects with final completion certificate attached (and construction appointment letters, will be assessed as follows	40	
			Completed projects with value of R 10 million to R15 Million- 8 Points each		
	Five (05) largest completed road construction or rehabilitation projects with final completion certificate attached (and construction appointment letters, will be assessed as follows	60			
	Completed projects with value of > R15 Million - 12 Points each				
	COMPANY EXPERIENCE TOTAL		60		
	KEY PERSONNEL				
	<p>Bidders must complete key personnel and add supporting documentation.</p> <p>NB: (Failure to submit required CV's and certified qualification will result in the bidder getting zero points. Key personnel must be unencumbered, available full time and unique to this project</p>				
	<p>Certificates must be Certified Copies of Academic Qualifications</p> <p>attached. Years of Experience will be counted from the year when the Qualification in question was obtained</p>	MANAGEMENT	SCORING CRITERIA	WEIGHT	SCORE
			Must be allocated to the site for the duration of the project. A Contract Manager with a civil engineering in project management degree or B-tech or higher registered with ECSA or SACPCMP: (MAX 5 Points)		
			< 5 years' experience	1	
			5-10 years' experience	3	
			>10 years' experience:	5	
	TOTAL		5		
	<p>Certified Copies of Academic Qualifications</p> <p>Certificates must be attached. Years of Experience will be counted from the year when the Qualification in question</p>	SITE	SCORING CRITERIA	WEIGHT	SCORE
			A construction manager with a civil engineering or project management degree or B-tech or diploma or higher. (MAX 10 POINTS)		
			< 2 years' experience	0	
			2-5 years' experience	3	

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Clause Number	Tender Data				
	was obtained		5-10 years' experience	6	
			>10 years' experience	10	
			TOTAL	10	
	Certified Copies of Academic Qualifications Certificates must be attached. Years of Experience will be counted from the year when the Qualification in question was obtained	SAFETY OFFICER	SCORING CRITERIA	WEIGHT	SCORE
			registered as a construction health and safety officer with SACPMPT (MAX 5 Points)		
			< 2 years' experience		
			2-5 years' experience		
			>5 years' experience	5	
			TOTAL	5	
	KEY PERSONNEL TOTAL			20	
	FINANCIAL CAPACITY				
	Bidders must complete rating and add supporting documentations. (Failure to submit proof of the bank rating from the relevant bank will result in the bidder getting zero points) Bank ratings may be verified with the bank by the employer	BANK RATING	SCORING CRITERIA	WEIGHT	SCORE
			NO BANK RATING	0	
			BANK RATING = E or LOWER	2	
			BANK RATING = D	5	
			BANK RATING = C	8	
			BANK RATING = A & B	10	
			FINANCIAL CAPACITY TOTAL	10	
	PLANT SCHEDULE				
	BIDDERS must complete list of plant and add supporting documentation. (Failure to submit proof of ownership OR Letter of intent for Plant and Equipment hire which is signed by both the lessee and the lessor will result in	CONSTRUCTION PLANT	SCORING CRITERIA	SCORE	
			1 x TLB		
			3 x Tipper Truck		
			1 x 30 TON Excavator		
			2 x Water tanker		

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Clause Number	Tender Data					
	the bidder getting zero Points) Certified Copies of Proof of Ownership must be attached.		1 x Grader			
			1 x Roller			
			POINTS (MAX 10 POINTS)			
			All the above= 10 points			
			Between 80% and 99% of the above= 8 points			
			Between 50% and 79% of the above= 5 points			
			Between 20% and 49% of the above= 3 points			
			Less than 19% of above= No points			
			PLANT SCHEDULE TOTAL		10	
			Functionality Threshold (Minimum score)		70	
	Total Points for Functionality		100			
	Bidders must score a minimum of 70 percentage points out of the 100 percentage to qualify for further adjudication.					

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Clause Number	Tender Data							
5.13	FOR SPECIFIC GOALS EVALUATION: Kindly complete and sign the MBD.6.1							
	MBD 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS							
	<p>This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.</p> <p>NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES</p> <p>APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022</p> <p>GENERAL CONDITIONS</p> <p>1.1 The following preference point systems are applicable to invitations to tender: the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).</p> <p>1.2 Applicable Preference Point System</p> <p>a) The applicable preference point system for this quotation is the 90/10 preference point system.</p> <p>1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for: (a) Price; and (b) Specific Goals.</p> <p>1.4To be completed by the organ of state:</p> <p>The maximum points for this tender are allocated as follows:</p> <table> <tr> <th></th><th>POINTS</th></tr> <tr> <td>PRICE</td><td>90</td></tr> <tr> <td>SPECIFIC GOALS</td><td>10</td></tr> <tr> <td>Total points for Price and SPECIFIC GOALS</td><td>100</td></tr> </table> <p>1.4.1 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean</p>		POINTS	PRICE	90	SPECIFIC GOALS	10	Total points for Price and SPECIFIC GOALS
	POINTS							
PRICE	90							
SPECIFIC GOALS	10							
Total points for Price and SPECIFIC GOALS	100							

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Clause Number	Tender Data
	<p>that preference points for specific goals are not claimed.</p> <p>1.4.2 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.</p> <p>DEFINITIONS</p> <p>“tender” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;</p> <p>“price” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;</p> <p>“rand value” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;</p> <p>“tender for income-generating contracts” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and</p> <p>“the Act” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).</p> <p>FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES</p> <p>3.1. POINTS AWARDED FOR PRICE</p> <p>3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS</p> <p>A maximum of 80 or 90 points is allocated for price on the following basis:</p> <p>80/20 or 90/10</p> $Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right) \quad \text{or} \quad Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$ <p>Where</p> <p>Ps = Points scored for price of tender under</p>

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Clause Number	Tender Data
	<p style="text-align: right;">consideration</p> <p>Pt = Price of tender under consideration</p> <p>Pmin = Price of lowest acceptable tender</p> <p>3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT</p> <p>3.2.1 POINTS AWARDED FOR PRICE</p> <p>A maximum of 80 or 90 points is allocated for price on the following basis:</p> <p style="text-align: center;">80/20 or 90/10</p> $Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right) \quad \text{or} \quad Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$ <p>Where</p> <p>Ps = Points scored for price of tender under consideration</p> <p>Pt = Price of tender under consideration</p> <p>Pmax = Price of highest acceptable tender</p> <p>POINTS AWARDED FOR SPECIFIC GOALS</p> <p>4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:</p> <p>4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—</p> <p style="padding-left: 40px;">an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or</p> <p style="padding-left: 40px;">any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable</p>

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Clause Number	Tender Data																								
	<p>preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.</p> <p>Table 1: Specific goals for the tender and points claimed are indicated per the table below.</p> <p>Note to tenderers: The tenderer must indicate how they claim points for each preference point system.</p> <p>with a rand value above R2 000 to R300 000(VAT included).</p> <table><tr><th>The specific goals allocated points in terms of this bid</th><th>Number of points allocated (90/10 system)</th><th>Bidders claimed points</th></tr><tr><td>Black ownership</td><td>3</td><td></td></tr><tr><td>Women</td><td>1.5</td><td></td></tr><tr><td>People living with disability</td><td>1</td><td></td></tr><tr><td>EME or QSE</td><td>1</td><td></td></tr><tr><td>Youth</td><td>1</td><td></td></tr><tr><td>Enterprises located in Limpopo Province – Within Limpopo Province = 1 Within Mopani District = 2 Within Maruleng Municipality =2.5</td><td>2.5</td><td></td></tr><tr><td>Total</td><td>10</td><td></td></tr></table>	The specific goals allocated points in terms of this bid	Number of points allocated (90/10 system)	Bidders claimed points	Black ownership	3		Women	1.5		People living with disability	1		EME or QSE	1		Youth	1		Enterprises located in Limpopo Province – Within Limpopo Province = 1 Within Mopani District = 2 Within Maruleng Municipality =2.5	2.5		Total	10	
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Total	10																								

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Clause Number	Tender Data
	<p>DECLARATION WITH REGARD TO COMPANY/FIRM</p> <p>4.3. Name of company/firm.....</p> <p>.....</p> <p>4.4. Company registration number:</p> <p>4.5. TYPE OF COMPANY/ FIRM</p> <p><input type="checkbox"/> Partnership/Joint Venture / Consortium</p> <p><input type="checkbox"/> One-person business/sole propriety</p> <p><input type="checkbox"/> Close corporation</p> <p><input type="checkbox"/> Public Company</p> <p><input type="checkbox"/> Personal Liability Company</p> <p><input type="checkbox"/> (Pty) Limited</p> <p><input type="checkbox"/> Non-Profit Company</p> <p><input type="checkbox"/> State Owned Company</p> <p>[Tick applicable box]</p> <p>4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the</p> <p>points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:</p> <p>The information furnished is true and correct;</p> <p>The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;</p> <p>In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;</p> <p>If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –</p> <p>disqualify the person from the tendering process;</p> <p>recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;</p>

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Clause Number	Tender Data
	<p>(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;</p> <p>(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the <i>audi alteram partem</i> (hear the other side) rule has been applied; and</p> <p>(e) forward the matter for criminal prosecution, if deemed necessary.</p> <div><p>.....</p><p>SIGNATURE(S) OF TENDERER(S)</p><p>SURNAME AND NAME:</p><p>DATE:</p><p>ADDRESS:</p><p>.....</p></div>
5.17	The number of paper copies of the signed contract to be provided by the Employer is 1.

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Clause Number	Tender Data
5.19	All requests shall be in writing.

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ADDITIONAL CONDITIONS OF TENDER CLAUSES:

3.7	Jurisdiction 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.
Proof of Availability of Staff with LI Competencies	Only those tenderers who can demonstrate that they will have in their employ management and supervisory staff satisfying the requirement of the scope of work for labour-intensive competencies for supervisory and management staff during the validity of the contract are eligible to submit tenders
Requirement for submission of names of LI staff	The tenderer must submit to the Employer, names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy eligibility requirements.

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T1.3: STANDARD CONDITIONS OF BID

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

F.1 General**F.1.1 Actions**

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

F.1.2 Bid Documents

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

F.1.3 Interpretation

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

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

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

Comparative offer means the bidder's financial offer after the factors of non-firm prices, all unconditional discounts and any other bided parameters that will affect the value of the financial offer have been taken into consideration

corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the bid process; and

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

Quality (functionality) means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

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

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

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

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

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F.2 Bidder's obligations**F.2.1 Eligibility**

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

F.2.2 Cost of bidding

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

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

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

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

Attend, where required, a clarification meeting at which bidders may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the bid data.

F.2.8 Seek clarification

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

F.2.9 Insurance

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

F.2.10 Pricing the bid offer

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

F2.10.2 Show VAT payable by the employer separately as an addition to the bidder's total of the Prices.

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

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

F.2.11 Alterations to documents

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

F.2.12 Alternative bid offers

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

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

F.2.13 Submitting a bid offer

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

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

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

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

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

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

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

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

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

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

F.2.15 Closing time

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

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

F.2.16 Bid offer validity

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

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

F.2.17 Clarification of bid offer after submission

Provide clarification of a bid offer in response to a request to do so from the employer during the evaluation of bid offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the total of the prices or substance of the bid offer is sought, offered, or permitted. The total of the prices stated by the bidder shall be binding upon the bidder.

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

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the bid offer, the bidder's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the bidder not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the bid offer as non-responsive.

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

F.2.19 Inspections, tests and analysis

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

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

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

F.2.21 Check final draft

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

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F.2.22 Return of other bid documents

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

F.2.23 Certificates

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

F.3 The employer's undertakings**F.3.1 Respond to clarification**

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

F.3.2 Issue Addenda

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

F.3.3 Return late bid offers

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

F.3.4 Opening of bid submissions

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

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

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

F.3.5 Two-envelope system

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

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

F.3.6 Non-disclosure

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

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F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

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

Meets the requirements of these Conditions of Bid,
Has been properly and fully completed and signed, and
is responsive to the other requirements of the bid documents.

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

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

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

F.3.9 Arithmetical errors

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

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

If a bill of quantities (or schedule of rates) apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate will be corrected.

Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the bidder's addition of prices, the total of the prices shall govern and the bidder will be asked to revise selected item prices (and their rates if a bills of quantities applies) to achieve the bided total of the prices.

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

F.3.10 Clarification of a bid offer

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

F.3.11 Evaluation of bid offers**F3.11.1 General**

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

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

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

F.3.11.2 Scoring Financial Offers

Score the financial offers of remaining responsive bid offers using either formulas 1 or 2 below as stated in the Bid Data:

Formula	Basis for comparison	Option 1	Option 2
1	Highest price or discount	$(1 + \frac{(P - P_m)}{P_m})$	P/P_m
2	Lowest price or percentage commission/fee	$(1 - \frac{(P - P_m)}{P_m})$	P_m/P

where:

P_m = the comparative offer of the most favorable bid offer.

P = the comparative offer of bid offer under consideration.

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F.3.11.3 Scoring quality (functionality)

Score quality in each of the categories stated in the Bid Data and calculate total score for quality.

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of bid offer

F.3.13.1 Accept bid offer only if the bidder satisfies the legal requirements stated in the Bid Data.

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

F.3.14 Notice to unsuccessful bidders

After the successful bidder has acknowledged the employer's notice of acceptance, notify other bidders that their bid offers have not been accepted.

F.3.15. Prepare contract documents

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

- Addenda issued during the bid period,
- Inclusion of some of the returnable documents,
- Other revisions agreed between the employer and the successful bidder, and
- The schedule of deviations attached to the form of offer and acceptance, if any.

F.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful bidder for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of bid require the bidder to submit, after acceptance by the employer, shall be included.

F.3.17 Complete adjudicator's contract

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

F.3.18 Provide copies of the contracts

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

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PART T2: RETURNABLE SCHEDULES

TABLE OF CONTENTS	Page	Colour
T2.1: LIST OF RETURNABLE DOCUMENTS.....	T.21	White
T2.2: RETURNABLE SCHEDULES TO BE COMPLETED BY TENDERER	T.22	Yellow

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

T2.1: LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

CHECKLIST:

No.	Requirements Checklist (Bids will be disqualified if the following is not provided)	Tick	Comment if not Attached
	COMPULSORY		
1.	Certificate of attendance at site inspection, to be signed in the Bid document or Signature onsite inspection attendance register.		
2.	Proof of SARS TCP PIN (for all companies in case of a Joint Venture)		
3.	The bidder must submit master registration number (CSD registration no.) to enable the municipality to verify bidder's tax compliance and other information		
4.	Copy of relevant CIDB Grading downloadable from the CIDB website		
5.	Company Registration Certificate (for all companies in case of a Joint Venture)		
6.	Company profile (for all companies in case of a Joint Venture)		
7.	Certified ID copies of all directors/member/shareholders of the company not older than 6 months (for all companies in case of a Joint Venture)		
8.	Recent proof (not older than 3 months) of payment for municipal rates and taxes or municipal services charges owed by the bidder or any of its directors to the municipality which are not in arrears for more than 3 months in line with regulation 38 of Municipal Supply Chain Management Regulation/recent and original proof of residence from traditional authority or Induna in case where business is located in a non-ratable area or in case of rental ,valid lease agreement between the lessor and lessee (bidder) accompanied by the rates and taxes of the lessor.		
9.	Certificate of Authority for signatory		
10.	Completion of Form of Offer		
11.	COMPLETED AND SIGNED ALL MBD FORMS		
12.	Record of addendum to Bid documents. Completion and Compliance with Addendum		
13.	Receipt/Proof of Purchase of Bid Document		
14.	Completion of Schedule of Quantities		
15.	Letter of intent to provide performance guarantee		
16.	Copy of Workman's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational		

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

	Injuries and Diseases Act No. 130 of 1990		
	All pages of the Bid document must be signed or initialled and must be properly completed in black ink (alteration on the bid document must be initialled or signed off)		
	Submit three years audited / reviewed Annual financial statements (AFS) – (only where the tender amount exceeds R10Mil- including VAT)		
	IF APPLICABLE		
	In case of a Joint Venture, Association or Consortium a formal contract agreement must be signed by both parties and be attached		
	REQUIRED FOR POINTS SCORING		
	Curriculum Vitae of key personnel with original certified copies of qualifications, years of relevant experience on similar projects and projects names.		
	Schedule of company experience (appointment letters and completion certificates)		
	Schedule of plants		
	Bank rating letter not older than 3 months		
Note: This is just a guide to assist you and is not necessarily all the information required. The MLM indemnifies itself and retain the rights to evaluate the full documentation.			

Service provider / representative

Signature

TENDERERS ARE INSTRUCTED TO COMPLETE ALL THE SCHEDULES ATTACHED HEREIN. FAILURE TO COMPLETE ANY OF THE SCHEDULES MAY RESULT IN AUTOMATIC DISQUALIFICATION OF THE TENDER AS THE TENDER WILL BE CONSIDERED NOT RESPONSIVE. IF THE SCHEDULE IS NOT APPLICABLE TENDERERS ARE INSTRUCTED TO INDICATE NOT APPLICABLE AND SIGN THE SCHEDULE

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

T2.2 RETURNABLE SCHEDULES

CERTIFICATE OF ATTENDANCE AT SITE CLARIFICATION MEETING

This is to certify that:

..... (Bidder)

of (Address)

.....

was represented by the person(s) named below at the compulsory meeting held for all bidders 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 bid documents in order for us to take account of everything necessary when compiling our entire bid submission.

Particulars of person(s) attending the meeting:

Name Signature

Capacity.....

Name Signature

Capacity.....

Note: All particulars above this horizontal divide line to be filled in by the Bidder **prior to** signature by Employer's representative.

Attendance of the above persons at the meeting is confirmed by the representative of Consulting Services namely:

Name Signature

Capacity..... Date Time

Note to the tenderer: Tenderers must attend the clarification meeting. And they must ensure that suitably qualified or experienced personnel attend the meeting.

Tenderers must ensure that those who attend the meeting on their behalf complete the official attendance register. Attendees must fill in the tenderers' names and contact details and they must sign the register. If they do not, the offers of the tenderers they represent at the meeting will be considered non-responsive.

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B. CERTIFICATE OF AUTHORITY OF SIGNATORY

Indicate the status of the bidder by ticking the appropriate box hereunder. The bidder must complete the certificate set out below for the relevant category and also attach confirmation on **your company letterhead**

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation

Certificate for company (To be printed and attached on original letterhead)

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 bid and any contract resulting from it on behalf of the company.

As witness

1.....
Chairman
2.....
Date

Certificate of partnership

We, the undersigned, being the key partners in the business trading ashereby authorise Mr/Mrs....., acting in the capacity of.....to sign all documents in connection with the bid for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Certificate for Joint Venture (Lead partner should be filled in first)

We, the undersigned, are submitting this bid 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 bid 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

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

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

NAME	ADDRESS	SIGNATURE	DATE

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

The signatory for the tenderer shall confirm his/her authority thereto by attaching on the tendering company's letterhead a duly signed and dated copy of the relevant resolution of the board of directors/partners.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C. 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 Registration Number & CIDB Classification	Description of Work to be executed by Subcontractor
1.			
2.			
3.			
4.			
5.			
6			
7			
8			
9			
10			
11			
12			
13			

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

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SCHEDULE OF PLANT AND EQUIPMENT

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

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

Quantity	Description, size, capacity, etc.

Signed.....

Date.....

Name.....

Position.....

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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

Quantity	Description, size, capacity, etc.

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

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01 _____

SCHEDULE OF THE BIDDER'S EXPERIENCE

The following is a statement of similar work successfully executed by myself/ourselves in the last ten years:

Employer, contact person and telephone number	Description of contract	Value of work Inclusive of VAT (Rand)	CIDB Classification	Date Completed

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

FORM 2.1.2 SIZE OF ENTERPRISE AND CURRENT WORKLOAD

What was your turnover in the previous financial year? R _____

What is the estimated turnover for your current financial year? R _____

Physical facilities:

Provide information on offices, factories, yards and warehouses occupied by your enterprise (attach details if the space provided is not enough)

Description	Address	Area (m ²)

List your current contracts and obligations:

Description	Value (R)	Start date	Duration	Expected completed date

Do you have the capacity to supply the goods and services described in this bid, should the contract be awarded to you?

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

FORM 2.1.3 STAFFING PROFILE

Provide information on the staff that you have available to execute this contract (attach a separate list if the space provided is insufficient)

Own staff: gender and race	Number of staff
Staff to be employed for the project: gender and race	Number of staff

Signed.....Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

FORM 2.1.4 PROPOSED KEY PERSONNEL

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

DESIGNATION	NAME OF	NATIONALITY:	SUMMARY OF		HDI Status Yes/No	NQF Certified Yes/No
	(i) NOMINEE (ii) ALTERNATE		QUALIFICATIONS	EXPERIENCE AND PRESENT OCCUPATION		
<u>HEADQUARTERS</u> Partner/director						
Project manager						
<u>CONSTRUCTION MONITORING</u> Site Agent						
Site Foreman						
Safety Officer						
Construction supervisor (LIC)						

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

RECORD OF ADDENDA TO BID DOCUMENTS

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

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		

Attach additional pages if more space is required.

Signed..... Date

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

Bidder.....

Note : If any addenda has been issued; the information of the addenda must filled on the table above and the signed copy of the issued addendum be attached in the document as an annexure.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

DEVIATIONS OR QUALIFICATIONS BY THE BIDDER

Note: Bidders will be declared to be non-responsive should any proposed deviation or qualification, save for where alternative bid offers are permitted in terms of the Bid Data, in the employer's opinion:

Detrimentially affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,

Change the employer's or the bidders risks and responsibilities under the contract, or

Affect the competitive position of other bidders presenting responsive bids, if it were to be rectified.

PAGE	DESCRIPTION

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CONTRACTOR'S ESTABLISHMENT ON SITE

Should the combined, extended total have bided for Item 13.01 The contractor's general obligations:

Fixed obligations

Value-related obligations

Time-related obligations

exceed a maximum of 15 % of the bid sum (excluding VAT), the bidder shall clearly set out his reasons for bidding in this manner in a letter attached to this page.

Total bided for Item B13.01 expressed as a percentage of the bid sum (excluding VAT):
.....% (insert percentage).

ESTABLISHMENT OVER AND ABOVE ITEM 13.01 (see item B13.01)		
ITEM	PORTION OF RATE OR SUM (R)	VALUE (RANDS)
TOTAL VALUE		

Note to Bidder:

If the bidder should require additional compensation for his obligations under section 1300 (over and above the total bided for item 13.01) by including such additional compensation in the bided rates and/or lump sum of items in the bill of quantities, these items and the value of such additional compensation shall also be set out in a letter attached to this form.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

**CERTIFICATE OF NON-COLLUSIVE BID 1 IN THE CASE OF A SINGLE CONSTRUCTION
CONCERN: I/We certify that this is a bona fide bid.**

I/We also certify that I/We have not done and I/We undertake not to do any of the following at any time before the hour and date specified for the closure of submission of bids for this contract.

Fix or adjust the amount of this bid by or under or in accordance with any agreement or arrangement with any other person;

communicate to a person other than the person calling for these bids the amount or approximate amount of the proposed bid, except when the confidential disclosure of the approximate amount of the bid is necessary to obtain the insurance-premium quotations required for preparation of the bid;

Cause or induce any other person to communicate to me/us the amount or approximate amount of any rival bid for this contract;

enter into any agreement or arrangement with any other person to induce him to refrain from bidding for this contract, or to influence the amount of any bid or the conditions of any bid to be submitted, nor cause or induce any other person to enter into any such agreement or arrangement;

offer or pay or give or agree to pay or to give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any bid or proposed bid for this contract, any action similar to those described above.

In this certificate the term "person" includes any persons, body of persons or association, whether corporate or not, and the term "agreement or arrangement" includes any agreement or arrangement, whether formal or informal and whether legally binding or not.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CERTIFICATE OF NON-COLLUSIVE BID (continued)

IN THE CASE OF A CONSORTIUM OF CONSTRUCTION

CONCERNS: We certify that this is a bona fide bid.

We also certify that we have not done and we undertake not to do any of the following at any time before the hour and date specified for the closure of submission of bids for this contract:

Fix or adjust the amount of this bid by or under or in accordance with any agreement or arrangement with any person outside this consortium;

communicate to a person outside this consortium other than the person calling for these bids, the amount or approximate amount of the proposed bid, except when the confidential disclosure of the approximate amount of the bid is necessary to obtain insurance premium quotations required for preparation of the bid;

cause or induce any person outside this consortium to communicate to us the amount or approximate amount of any rival bid for this contract.

enter into any agreement or arrangement with any person outside this consortium to induce him to refrain from bidding for this contract, or to influence the amount of any bid or the conditions of any bid to be submitted, nor cause or induce any person outside this consortium to enter into any such agreement or arrangement;

offer or pay or give or agree to give any sum of money or valuable consideration directly or indirectly to any person outside this consortium for doing or having done or causing or having caused to be done in relation to any bid or proposed bid for this contract, any action similar to those described above.

In this certificate the term “person” includes any persons, body of persons or association, whether corporate or not, the term “agreement or arrangement” includes any agreement or arrangement, whether formal or informal and whether legally binding or not, and the term “person outside this consortium” means, when the consortium is a partnership, a person other than a partner or an employee of a partner or the partnership, or when the consortium is a company, a person other than a person or company holdings shares in the consortium, or any employee of such a person, company or the consortium.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

**COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 AND
CONSTRUCTION REGULATIONS, 2014**

The bidder shall attach to this Form evidence that he is registered and in good standing with a compensation insurer who is approved by Department of Labour in terms of section 80 of the Compensation for Injury and Disease Act (COID) (Act 130 of 1993).

The bidder is required to disclose, by also attaching documentary evidence to this form, all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the bidder at any time during the 36 months preceding the date of this bid.

Note to bidder:

Discovery that the bidder has failed to make proper disclosure may result in MARULENG MUNICIPALITY terminating a contract that flows from this bid on the ground that it has been rendered invalid by the bidder's misrepresentation.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

REQUIREMENTS IN TERMS OF GOVERNMENT'S RECONSTRUCTION AND DEVELOPMENT PROGRAMME**K1 General**

The employer requires the active participation of the contractor in this aspect of the contract. Forms RDP 1 (E) to RDP 4 (E) apply to this section and must be completed and submitted with the bid.

The bidder's submissions under this item will be taken into consideration when evaluating bids received.

K2 Definitions**K2.1 Contract Participation Goal (CPG)**

The value of goods, services and works, excluding VAT, for which the contractor proposes to engage labour or ABEs .

K2.2 Affirmable Business Enterprise (ABE)

A business which adheres to statutory labour practices, is a legal entity, registered with the South African Revenue Service and a continuing and independent enterprise for profit, providing a commercially useful function and

which is at least 51 % Owned by one or more Previously Disadvantaged Individuals (PDI) or in the case of a company, at least 51 % of the shares are owned by one or more Previously Disadvantaged Individuals (PDI) and

whose management and daily business operations are under the control of one or more of the Previously Disadvantaged Individuals (PDI) who effectively own it provided, however, that, during the period for which the business has been operating or the previous three financial years, whichever period is the lesser, the average annual turnover of the business (excluding VAT and any turnover generated in respect of work performed by other parties in a joint venture or a consortium) does not exceed:

R10 million in respect of contractors who mainly perform Civil Engineering Services.

R2,5 million in respect of labour-only subcontractors

R10 million in respect of Manufacturers

R15 million in respect of Suppliers

R2,5 million, exclusive of any turnover generated in respect of out-sourced activities which the enterprise does not have the in-house competence and expertise to perform, in respect of professional service providers, and

R2, 5 million in respect of other service providers, e.g., transport; and that the sum of the average annual turnovers over the same period of all the business concerns

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

which are under the control of Previously Disadvantaged Individuals (PDI) within the business entity and Affiliated Entities does not exceed one and a half (1,5) times the maximum allowable annual average turnover for the particular category of enterprise as set out in (b) above, seeking ABE status.

K2.3 “Historically Disadvantaged Individuals (HDIs)” means all South African Citizens

who had no franchise in national elections prior to the introduction of the 1983 and 1993 constitutions;

women, or

disabled persons

Persons who obtained South African Citizenship after the first democratic election in April 1994, cannot qualify for preference as an HDI.

K2.4 Target values

The values of the following items (excluding VAT) expressed as percentages of the Bid Sum, (excluding VAT) as proposed by the bidder in his bid. The monetary total of these values shall be the CPG. The values of the targets (including VAT) are expressed as follows:

At Bid stage: As a percentage of the Bid Sum (i.e. excluding Contingencies, CPA and Rise and Fall, but inclusive of VAT) as proposed by the bidder in his bid

After Award: As a percentage of the certified work done (i.e. excluding savings, but inclusive of variation orders and VAT)

In this contract the minimum target values shall be as follows:

Labour Maximisation (wages) : 10%

SMME's : 30%

ABE/s support : 10%

The value of target values, ***the bid of a bidder whose proposed target values are below the minimum set by the employer may be disqualified.***

The following item expressed as a percentage of the total number of supervisory staff employed on the contract, as proposed by the bidder in his bid. In this contract the minimum target value shall be:

HDI Supervisory Staff: 10%

The bid of a bidder whose proposed target values are below the minimum set by the employer may be disqualified.

The maximum target values for each category will be the highest of all values submitted in the bids short-listed for detailed evaluation.

The cost of material purchased locally by the Contractor will form part of the 30% allocation for SMME's.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**K2.5 Labour Maximisation**

It is a requirement of this contract that participation in the contract must be granted to labour in order to maximize job creation as well as to maximize expenditure towards the unemployed.

The specified target value for labour expenditure is **10%** of the contract value. This labour content shall be from the LOCAL COMMUNITY where Local Community means those in the immediate vicinity of the project. Labour is defined as daily paid personnel including the CLO.

It is a requirement that the Contractor plan for achieving these targets and that a planned programme for achieving each of the targets is submitted at the start of the project together with the clause 12 programme of construction.

Penalties: The penalties for not reaching the required labour target values will be calculated at **30%** of the difference between the set target values and the actual target values achieved by the contractor at completion of the works. Penalties will be applied monthly, when the actual figures are less than **30%** of the planned accumulative monthly figures. No bonuses for achieving the set target values are applicable. In the event that penalties are reversed, no interest will be claimable on the value of the penalty.

K2.6 SMME

SMME (According to the National Small Business Amendment Act, No. 29 of 2004):

Definition: A "Small [business] Enterprise" means a separate and distinct business entity, together with its branches or subsidiaries, if any, including co-operative enterprises [and non-governmental organisations], managed by one owner or more [which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy, which can be classified as a micro-, a very small, a small or a medium enterprise by satisfying the criteria mentioned in columns 2, 3 and 4 of the Schedule opposite the smallest relevant size or class as mentioned in column 1 of the Schedule for the Construction category below:

Size of class	Total full time equivalent of paid employees	Total annual turnover	Total gross asset value(fixed property excluded)
Medium	200	R26m	R5m
Small	50	R6m	R1m
Very Small	20	R3m	R0,5m
Micro	5	R0,2m	R0,1m

It is a requirement of this contract that participation in the contract must be granted to local SMME companies. Local is defined as "having their head office within the Limpopo Province boundaries." A SMME company should be a registered company, but not necessarily be registered with CIDB, although it is preferred. The minimum target for participation is thirty percent (30%) of the total contract value and this can be achieved through one or more sub-contractors. EPMLM reserves the right to terminate the contract should the contractor fail to honour the commitment as stipulated by the contractor on this page

Information in this regard needs to be provided by the contractor on Forms RDP 2 (E), RDP 2 (E1), RDP 2 (E2), etc. Commitment to these goals will be a condition of award.

It is a requirement that the Contractor plan for achieving these targets and that a planned programme for achieving each of the targets is submitted at the start of the project together with the clause 12 programme of construction.

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K3 Contract Participation Performance (CPP)

K3.1 The Contractor's Participation Performance will be measured monthly in order to monitor the extent to which he is striving to reach the Contract Participation Goal (CPG) he proposed in his bid. Failure to reach the CPG will make him liable for a penalty as prescribed in Section C3.3.1.5 of the Preferential Procurement Point System Policy.

K3.2 Monitoring of CPG

Regular returns will be required from the contractor, to be submitted with each payment certificate.

Examples of the forms to be used are illustrated under Annexure C5.1 of this document.

K4 Training

Provision is made in the PROJECT SPECIFICATIONS for structured training to be provided by the contractor to PDI'S and ABE'S.

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RDP 1 (E) SCHEDULE OF LABOUR CONTENT

The Bidder must complete the table below to reflect the labour force anticipated to be employed on this contract, including labour employed by sub-contractors. The specified target value is 10%.

Note: A minimum of 10% target value should be obtained from Local Labour content

Type of Labour	Man-days	Minimum Wage Rate per Unit	Total Wage Cost (Excl VAT)
Permanent Labour			
Temporary Labour			
SMME/HDI's Labour			
		TOTAL	
		PERCENTAGE	

Notes to Bidder:

Labour is defined as hourly paid personnel or personnel paid per task.

The penalty for non-compliance during the contract or for fraudulent disclosure is discussed in Section C3.3.1.5.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Target values of work to be executed by and goods & services to be procured from ABEs shall be 10%.

Schedule Item No	Name of ABE	Item Description/ Goods & Services to be provided	Value	
			Rand (Excl VAT)	% of Bid Sum (Excl VAT)
TOTAL				

Regardless whether the bidder fits the classification of an SMME/PDI, as defined in Section 3.3 of this specification, the bidder nevertheless retains the obligation to commit to the target values prescribed under Form T2.1 K, item K2.4.

Bidders shall insert “unknown” if an SMME/PDI has not been selected prior to bid closing date.

The penalty for non-compliance during the contract or for fraudulent disclosure is discussed in Section C3.3.1.5.

Signed..... Date

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

Bidder

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RDP 3 (E) HDI EQUITY IN PROJECT

The bidder shall complete the table below

Company Name (In Case of Joint Venture, all JV Partner Names)	Other HDI Equity Share %	Female Equity Share %	Total HDI Equity Share %

Notes to bidder:

The bidder may be required to provide audited proof of equity distribution. In the case of public listed companies the ratios of equity shareholding are to be replaced by the ratio of HDI and female representation at directorship level.

Signed..... Date

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

Bidder.....

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RDP 4 (E) HDI SUPERVISORY STAFF

The minimum value of HDI supervisory staff expressed as a percentage of the total number of staff be 50%. Refer Form T2.1 K, item 2.4(b).

It is proposed to employ the following salaried personnel on this contract as supervisory staff:
(Note: The Curriculum Vitae of each staff member proposed to be attached to Section T2.3

A) Staff Category Number per Category HDI Status (Yes or No)

Staff Category	Number per Category	HDI Status (Yes or No)
TOTALS		

HDI as percentage of total %

Notes to bidder:

If personnel are hourly paid they cannot be classified as supervisory staff, regardless the nature of their duties.

The bidder may be required to provide audited proof that the stated personnel are salaried members of staff or contracted on a monthly fee.

Examples of relevant personnel are: Site agent, assistant site agent, senior materials technician, senior surveyors and clerks.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

RDP 5 (E) ABE DECLARATION AFFIDAVIT

It is understood and agreed that should this contract be awarded to me an ABE Declaration Affidavit will be completed by each and every ABE employed by me on this contract and will be submitted to the Employer immediately upon demand by the Employer.

Signed..... Date

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

Bidder.....

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RDP 6 (E) ENTREPRENEURIAL TRAINING

Name of Training Institution:

Name of Programme:

Trainer's Name	Qualification	Subject

Notes to bidder:

Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.

Signed..... Date

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

Bidder.....

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RDP 7 (E) ENGINEERING SKILLS TRAINING

Name of Training Institution:

Name of Programme:

Trainer's Name	Qualification	Subject

Notes to bidder:

Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.

Signed..... Date

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

Bidder.....

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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, if any:

....

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

.

Close corporation number

.

Tax reference number

.

Section 6: Record 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:

a member of any municipal council a member of any provincial legislature a member of the National Assembly or the National Council of Province a member of the board of directors of any municipal entity an official of any municipality or municipal entity	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) a member of an accounting authority of any national or provincial public entity an employee of Parliament or a provincial legislature
---	--

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

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

*insert separate page if necessary

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

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

a member of any municipal council a member of any provincial legislature a member of the National Assembly or the National Council of Province a member of the board of directors of any municipal entity an official of any municipality or municipal entity	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) a member of an accounting authority of any national or provincial public entity an employee of Parliament or a provincial legislature
--	--

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 so on behalf of the enterprise:

authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;

confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Bid Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;

confirms that I / we are not associated, linked or involved with any other bidding entities submitting bid offers and have no other relationship with any of the bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and

confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed		Date	
Name		Position	
Enterprise name			

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

FORM OF INTENT TO PROVIDE A DEMAND GUARANTEE

NB: Bidder to complete this form and attach proof

If my/our bid is accepted, I/we will, when required and within the time stipulated, provide a guarantee of

Insurance Company (name)

(of address)

.....

Commercial Bank (Name)

(Branch)

(of address)

.....

to be approved by you, the Employer, for the amount stipulated.

(*) : delete whichever is not applicable.

I/we understand that failure to produce an acceptable Demand Guarantee within the stipulated period is a fundamental breach of Contract, entitling the Employer to:

withhold all payments which may be due to the Contractor pending compliance with the stipulated requirements to produce an acceptable Demand Guarantee.

instruct the Contractor to cease all work pending provision of the Demand Guarantee, and

cancel the Contract.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

FINANCIAL INFORMATION OF BIDDER

This information sheet has to be filled in by the financier of the Bidder, duly signed and stamped on behalf of the financial institution he represents.

Bidder Details

Bid Description :

Contract Period :

Name of Bidder :

Bank Account Number :

Bank rating(s) :

Bided Amount :

Demand Guarantee will be provided by this Bank: YES ☐ NO ☐

If yes, state amount of Demand Guarantee: R

Financial Institution

Name of Commercial Bank :

Branch :

Name of Bank Manager :

Telephone Number :

I / We acting on behalf of the above Commercial Bank confirm that

..... (Bidder)

has operated an account with us for the lastyears.

Note: Bidder to include a Letter from the bank. The letter should clearly indicate the project Number; description and the bank rating(s)

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

ANNEXURE: B

DECLARATION WITH REGARDS TO MUNICIPAL SERVICES, RATES AND TAXES

I _____ the undersigned, declare on

behalf of (Name of Bidder) _____ that; the bidder and (or) any of its director(s) does not owe any municipal services, rates and taxes to the municipality or any other municipality or municipal entity any amount which could be in arrears for an period for a period more than three months.

In the event that this declaration is found to be false, the bid will be rejected and found to be nonresponsive.

MUNICIPALITY	ACCOUNT NUMBER	OWNER
COMPANY		
DIRECTOR(S)		

N.B: Tenderer to submit a COPY OF A MUNICIPAL ACCOUNT of the company and that of its directors not in arrears and not older than three (03) months; or

In the event that the bidder or director(s) is leasing, a lease agreement along with the Municipal account of the leased property (lessor) should be attached; or

In the event that the bidder/director(s) is operating from place where no municipal services are levied confirmation letter in the name of the bidder and/(or) director from the local municipality not older than three months confirming that services are not charged/levied and the bidder does not owe must be attached

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

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

Tenderer.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 1

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE MARULENG MUNICIPALITY

BID NUMBER:	MLM/SCM/63/2024	CLOSING DATE:	12 May 2025	CLOSING TIME:	11:00
DESCRIPTION	CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT BUDGET & TREASURY MAIN ENTRANCE AT 65, SPRINGBOK STREET, HOEDSPRUIT 1380;					

MARULENG MUNICIPALITY

65 Springbok Street

HOEDSPRUIT

1380

NOTE: THE BID BOX IS ONLY ACCESSIBLE MONDAY - FRIDAY DURING OFFICE HOURS (08:00 TO 16:30)

SUPPLIER INFORMATION

NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No	

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

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

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:

TECHNICAL INFORMATION MAY BE DIRECTED TO:

DEPARTMENT	BUDGET AND TREASURY		TECHNICAL SERVICES
CONTACT PERSON	Mr K Phiri	CONTACT PERSON	Mr L Muroa
TELEPHONE NUMBER	015 590 1650	TELEPHONE NUMBER	015 590 1650
FACSIMILE NUMBER	N/A	FACSIMILE NUMBER	N/A
E-MAIL ADDRESS	phirik@maruleng.gov.za	E-MAIL ADDRESS	muroal@maruleng.gov.za

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PART B TERMS AND CONDITIONS FOR BIDDING

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

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED) OR ONLINE**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILE. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
- 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
- 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- | | | |
|--|------------------------------|-----------------------------|
| 3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
- IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.**

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

SIGNATURE OF BIDDER.....

CAPACITY UNDER WHICH THIS BID IS SIGNED.....

DATE:

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SCHEDULE P – PRICING SCHEDULE – FIRM PRICES

MBD 3.1

PRICING SCHEDULE – FIRM PRICES
(PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of Bidder..... Bid Number.....
Closing Time Closing Date

OFFER TO BE VALID FOR.....DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION **(ALL APPLICABLE TAXES INCLUDED)	BID PRICE IN RSA CURRENCY
----------	----------	--	---------------------------

- | | | | |
|---|--|-------|--------------------------|
| - | Required by: | ..... |  |
| - | At: | ..... |  |
| - | Brand and Model | ..... |  |
| | Country of Origin | ..... |  |
| - | Does the offer comply with the specification(s)? | | *YES/NO |
| - | If not to specification, indicate deviation(s) | ..... |  |
| - | Period required for delivery | ..... | *Delivery: Firm/Not firm |
| - | Delivery basis | ..... |  |

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

“all applicable taxes” includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

SCHEDULE K – PRICING SCHEDULE – NON -FIRM PRICES

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 3.2

**PRICING SCHEDULE – NON-FIRM PRICES
(PURCHASES)**

NOTE: PRICE ADJUSTMENTS WILL BE ALLOWED AT THE PERIODS AND TIMES SPECIFIED IN THE BIDDING DOCUMENTS.

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of Bidder.....	Bid number.....
Closing Time	Closing Date

OFFER TO BE VALID FOR.....DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
----------	----------	-------------	--

- Required by:

- At:

- Brand and model

- Country of origin

- Does the offer comply with the specification(s)? *YES/NO

- If not to specification, indicate deviation(s)

- Period required for delivery

- Delivery: *Firm/Not firm

"all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 3.2

PRICE ADJUSTMENTS

A NON-FIRM PRICES SUBJECT TO ESCALATION

1. IN CASES OF PERIOD CONTRACTS, NON FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES

IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1 - V) Pt - D1 \frac{R1t}{R1o} + D2 \frac{R2t}{R2o} + D3 \frac{R3t}{R3o} + D4 \frac{R4t}{R4o} + VPt$$

Where:

Pa	=	The new escalated price to be calculated.
(1-V) Pt	=	85% of the original bid price. Note that Pt must always be the original bid price and not an escalated price.
D1, D2..	=	Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1,D2...etc. must add up to 100%.
R1t, R2t.....	=	Index figure obtained from new index (depends on the number of factors used).
R1o, R2o	=	Index figure at time of bidding.
VPt	=	15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

3. The following index/indices must be used to calculate your bid price:

Index..... Dated.....	Index..... Dated.....	Index..... Dated.....
Index..... Dated.....	Index..... Dated.....	Index..... Dated.....

FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA. THE TOTAL OF THE VARIOUS FACTORS MUST ADD UP TO 100%.

FACTOR (D1, D2 etc. eg. Labour, transport etc.)	PERCENTAGE OF BID PRICE

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 3.2

B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

PARTICULARS OF FINANCIAL INSTITUTION	ITEM NO	PRICE	CURRENCY	RATE	PORTION OF PRICE SUBJECT TO ROE	AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 4

DECLARATION OF INTEREST

No bid will be accepted from persons in the service of the state¹.

Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

In order to give effect to the above, the following questionnaire must be completed and submitted with the bid. Also select the applicable answers ☒

3.1. Full Name of bidder or his or her representative:

3.2. Identity Number:

3.3. Position occupied in the Company (director, trustee, shareholder², etc.):.....

3.4. Company Registration Number:

3.5. Tax Reference Number:

3.6. VAT Registration Number:

3.7. The names of all directors / trustees / shareholders / members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8. Are you presently in the service of the state* YES ☐ / NO ☐

3.8.1 If yes, furnish particulars.

.....
.....

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

any municipal council;
any provincial legislature; or
the national Assembly or the national Council of provinces;

member of the board of directors of any municipal entity;
an official of any municipality or municipal entity;
an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
a member of the accounting authority of any national or provincial public entity; or an employee of Parliament or a provincial legislature.
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);

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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

3.9.1 If yes, furnish particulars.

.....
.....

3.10. Do you, have any relationship (family, friend, other) with person in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES** ☐ / **NO** ☐

3.10.1 If yes, furnish particulars.

.....
.....

3.11. Are you, aware of any relationship (family, friend, other) between bidder and any persons in the service of the state who may be involved with the evaluation and adjudication of this bid? **YES / NO** ☐ ☐

3.11.1 If yes, furnish particulars.

.....
.....

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

3.12.1 If yes, furnish particulars

.....
.....

3.13. Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES** ☐ / **NO** ☐

3.13.1 If yes, furnish particulars

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Name of the spouse/child/parent :

ID number of the spouse/child/parent:.....

Relationship to the official:.....

Designation of the spouse/child/parent:

Employer of the spouse/child/parent:

.....

.....

3.14. Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other companies or business whether or not they are bidding for this contract? YES ☐ / NO ☐

3.14.1 If yes furnish particulars:

.....

.....

4. Please provide the following information on ALL directors/shareholders/trustees/members below:

Full Name	Identity Number	Personal Income Tax Number	Provide State Employee Number

5. CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature.....
Date.....
Name Of Signatory.....
Capacity.....
Name of Bidder

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 5

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

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

1 Are you by law required to prepare annual financial statements for auditing?

1.1 If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.

YES ☐ / NO ☐

.....

.....

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

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

2.2 If yes, provide particulars.

.....

.....

Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract/tender occurred?

YES ☐ / NO ☐

3.1 If yes, provide particulars.

.....

.....

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

YES ☐ / NO ☐

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.1 If yes, furnish particulars

.....

.....

* Delete if not applicable

CERTIFICATION

I, THE UNDERSIGNED (NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.
I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO
BE FALSE.

Signature

Date

.....
Name Of Signatory

.....
Capacity

.....
Name of Bidder

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

DECLARATION WITH REGARD TO COMPANY/FIRM

5.1 Name of company/firm:.....

5.2 VAT registration number:.....

5.3 Company registration number:.....

5.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

5.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

5.6 COMPANY CLASSIFICATION

Manufacturer

Supplier

Professional service provider

Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

5.7 MUNICIPAL INFORMATION

Municipality where business is situated:**Registered Account Number:****Stand Number:**.....5.8 Total number of years the company/firm has been in
business:.....5.9 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:

The information furnished is true and correct;

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

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;

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 –

disqualify the person from the bidding process;

recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

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;

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

forward the matter for criminal prosecution.

WITNESSES

.....

2.

.....

SIGNATURE(S) OF BIDDERS(S)

SURNAME & NAME:

DATE:

ADDRESS

.....

.....

.....

.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

This Municipal Bidding Procedure Document must form part of all Bidders invited.

It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

The Bid of any Bidder may be rejected if that Bidder, or any of its directors have:

abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;

been convicted for fraud or corruption during the past five years;

willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

been listed in the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

3.1. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;

3.2. been convicted for fraud or corruption during the past five years;

3.3. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

3.4. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

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

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.2	Is the bidder or any of its directors listed on the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? (To access this Register enter the National Treasury's website, www.treasury.gov.za , click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
 CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE
 AND CORRECT. I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT,
 ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO
 BE FALSE.

.....
Signature

.....
Date

.....
Name (Print):

.....
Capacity:

.....
Name of Bidder

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

This Municipal Bidding Procedure Document (MBD) must form part of all Bidders¹ invited.

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

Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

take all reasonable steps to prevent such abuse;

reject the Bid of any Bidder if that Bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and

cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the Bidding Procedure process or the execution of the contract.

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

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

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

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

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.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION (CONTINUE)

I, the undersigned, in submitting the accompanying Bid:

MLM/SCM/63/2024 - CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01 (Bid Number and Description)

in response to the invitation for the Bid made by:

MARULENG LOCAL MUNICIPALITY
(Name of Municipality / Municipal Entity)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

I, the undersigned, in submitting the accompanying bid, hereby make the following statements that I certify to be true and complete in every respect:

I have read and I understand the contents of this Certificate;

I understand that the accompanying Bid will be disqualified if this Certificate is found not to be true and complete in every respect;

I am authorized by the Bidder to sign this Certificate, and to submit the accompanying Bid, on behalf of the Bidder;

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;

For the purposes of this Certificate and the accompanying Bid, I understand that the word "competitor" shall include any individual or organization, other than the Bidder, whether or not affiliated with the Bidder, who:

has been requested to submit a Bid in response to this Bid invitation;

could potentially submit a Bid in response to this Bid invitation, based on their qualifications, abilities or experience; and

provides the same goods and services as the Bidder and/or is in the same line of business as the Bidder

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

Procedure.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

prices;

geographical area where product or service will be rendered (market allocation)

methods, factors or formulas used to calculate prices;

the intention or decision to submit or not to submit, a Bid;

the submission of a Bid which does not meet the specifications and conditions of the Bid; or

Bidding Procedure with the intention not to win the Bid.

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.

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.

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

.....
Signature

.....
Date

.....
Name (Print):

.....
Capacity:

.....
Name of Bidder

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B-BBEE VERIFICATION CERTIFICATE

Attach the company's B-BBEE certificate in this page.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

ORIGINAL BANK RATING LETTER

Attach to this page a company's original letter stating the Bank rating.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CSD REPORT

Attach to this page a CSD report of the company

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

BANKING DETAILS

Account Holder	Maruleng Local Municipality
Name of Bank	Standard bank
Account Number	033355487
Type Of Account, (I.E. Cheque Account)	Current
Branch Name	Hoedspruit
Branch Code	052752

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**DAY WORK SCHEDULE**

This Day work Schedule shall be used for the valuation of any additional or substituted work which cannot conveniently be valued at the rates and prices submitted in the schedule of quantities.

In respect of labour and materials used in the additional or substituted work not covered in the Day work Schedule the Contractor shall be paid the actual cost plus the percentage allowance stated in the schedule of quantities.

The Bidder shall quote hereunder rates which shall apply for payment purposes if the Engineer orders additional or substituted work to be carried out on a day work basis and shall therefore be in accordance with the requirements of clause 37(2) of the General Conditions of Contract.

LABOUR AND MATERIALS

Rates and prices entered in the schedule shall be held to allow for net cost of labour and materials delivered to site respectively with the percentage allowances stated in the schedule of quantities.

PLANT AND EQUIPMENT

The Bidders shall list all major items of plant and equipment to be used on the works and which may be required for use on day works. The proposed hire rates of these items shall be entered against each type of machine, such rates to include for all relevant costs of plant hire inclusive of fuels and lubricants but exclusive of labour charges for the operators, which will be paid for under sub-clause (1) above.

The rates for plant items not listed in the schedule will be the ruling plant hire rates, inclusive of fuels and lubricants but exclusive of labour charges for the operators, inclusive of a 7,5% handling charge. It is therefore in the Bidders interest to ensure that the list is complete.

Should there be insufficient space on the pages provided; the Bidder shall add further pages as required.

THE RATES FOR THE PLANT AND EQUIPMENT MENTIONED IN THE SCHEDULE SHALL BE FILLED IN FOR THE ITEMS REQUESTED. SHOULD AN ITEM BE OMITTED IT SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE OTHER DAYWORKS RATES.

A. LABOUR

DESIGNATION		RATE	
		R	C
Foreman	per hour		
Plant Operators	per hour		
Truck Drivers	per hour		
Labour - unskilled	per hour		
- semi-skilled	per hour		
- skilled	per hour		

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B. MATERIALS

DESIGNATION		RATE	
		R	C
Cement	per 50 kg pocket delivered		
Concrete Sand	per m ³ delivered		
Concrete Aggregate	per m ³ delivered		

C. TRANSPORT

DESIGNATION	RATE	
	R	C
Per cubic metre kilometre		

D. PLANT AND EQUIPMENT

ITEM	DESCRIPTION	NON WORKING RATE*		OPERATING RATE		PER
		R	c	R	C	UNIT
	TLB					
	Water cart					
	LDV					
	Compactor					
	Vibrating Roller					
	Concrete mixer (litres specified)					
	Tractor & Trailer					
	Excavator					
	Front-end loaders					
	Trucks (m ³ specified)					
	Water truck (litres specified)					
	Grader					

*Only applicable on authority of the Engineer

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PREFERENCE SCHEDULE

Acceptable Bids will be evaluated using a system that awards points on the basis of Bid price and the meeting of specific goals. **Failure on the part of a Bidder to sign this form will be interpreted to mean that point preference is not being claimed.**

The acceptable Bidder obtaining the highest number of points will be awarded the contract. For Bids with a Bid amount equal to or below R 50 000 000 a maximum of 80 points is allocated for price and a maximum of 20 points for Specific goals. For Bids with a Bid amount above R 50 000 000 a maximum of 90 points is allocated for price and a maximum of 10 points for Specific goals.

The points for the meeting of specific goals may only be awarded to an enterprise which is a legal entity, registered as an income tax payer with the South African Revenue Services, and which is an independent and operating enterprise which performs commercially useful functions as set out below. Points can be denied where an enterprise subcontract more than 25% of the value of the contract (excluding SMME's and emerging contractors and materials) at the time of award, exclusive of all VAT, allowances for contingencies, escalation and provisional sums, to other entities.

DEFINITIONS

"Acceptable Bid" means any Bid which, in all respects, complies with the conditions of Bid and specifications as set out in the Bid document, including conditions as specified in the Preferential Procurement Policy Framework Act (Act 5 of 2000) and related legislation.

"Council" refers to the Maruleng Municipality.

"Equity ownership" refers to the percentage ownership and control, exercised by individuals within an enterprise.

"SMME's" (small, medium and micro enterprises) refers to separate and distinct business entities, including co-operative enterprises and NGOs, managed by one owner or more, as defined in the National Small Business (Act 102 of 1996).

Penalties

The MARULENG MUNICIPALITY will if upon investigation it is found that a preference in terms of the Act and these regulations has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Departmental Head, one or more of the following penalties will be imposed:

- Cancel the contract and recover all losses or damages incurred or sustained from the Bidder.
- Impose a financial penalty of twice the theoretical financial preference associated with the claim, which was made in the Bid.
- Restrict the contractor, its shareholders and directors on obtaining any business from the Maruleng Municipality for a period of 5 years.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

List all shareholders by name, identity number, citizenship, status, ownership, as relevant

Name	ID Number	Date obtained South African citizenship	HDI status				Youth Yes/No	Percentage equity ownership, or in the case of a joint venture the percentage of the contract to be managed or executed by targeted persons (%)
			No franchise in national elections (black persons)		Women	Disabled person		
			PPG (African)	Coloured, Indian				
					Yes/No	Yes/No		

8.1.1 How long has the entity been in existence?

8.1.2 Describe principal business activities:

.....

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the bidder confirms that he / she understands the conditions under which such preferences are granted and confirms that the bidder satisfies the conditions pertaining to the granting of bid preferences.

Signature:

Name:

Duly authorised to sign on behalf of :

Telephone:

Fax:

Date:

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

ORGANOGRAM AND CURRICULUM VITAE OF KEY PERSONNEL

Bidder to supply an organigram for the management of the contract and include curricula vitae of key personnel. These curricula vitae shall provide evidence of relevant experience of the key staff in the organigram. The personnel included here shall be used on the project unless otherwise agreed by the engineer.

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PROJECT PROGRAMME AND METHOD STATEMENT

Bidder to supply project programme, using acceptable software, in sufficient detail to cover the various facets of the work.

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

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE

The bidder shall state his estimated value of the work to be completed every month, based on his preliminary programme and his bided unit rates, in the table below. The amounts for contingencies and contract price adjustment shall not be included.

MONTH	VALUE (INCLUDING VAT)
1	R
2	R
3	R
4	R
5	R
6	R
7	R
8.	R
9	R
10	R
11	R
12	R
13	R
14	R
15	R
16	R
17	R
18 (FINAL)	R
TOTAL: R.....	
(EXCLUDING CONTINGENCIES AND CONTRACT PRICE ADJUSTMENT)	

Signed..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

RATES FOR SPECIAL MATERIALS

Bitumen products will be dealt with as a special material in terms of sub clause 46.3 of the General Conditions of Contract. All bitumen products as indicated in the contract data must be stated in the list below.

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.

Base Month: **The base month shall be a month prior to the closing date of this tender**

SPECIAL MATERIALS	UNIT *	RATE OR PRICE FOR THE BASE MONTH

Indicate whether the material will be delivered in bulk or in containers. Cement and steel will not be accepted as a special material

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..... Date

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

Bidder.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

THE CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA

PART C2: PRICING DATA

PART C3: SCOPE OF WORK

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MARULENG LOCAL MUNICIPALITY

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CONSTRUCTION OF MADEIRA ACCESS ROAD

C1.1 Form of Offer and Acceptance

Offer

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

Contract No: MLM/SCM/63/2024 (Re-Advert) Project Name: CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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

By the representative of the bidder, deemed to be duly authorized, signing this part of this form of offer and acceptance, the bidder offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

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

.....
..... Rand (in words);

R (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the bidder before the end of the period of validity stated in the bid data, whereupon the bidder becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature Block: Bidder

Signature	Date
Name	
Capacity	
Name of organization.	
Address of organization	
.....	
.....	
Signature of witness Date	
Name of witness	

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Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the bidder's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the bidder's offer shall form an agreement between the employer and the bidder upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1: Agreements and contract data, (which includes this agreement)
Part C2: Pricing data
Part C3: Scope of work.
Part C4: Site information
and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the bid data and any addenda thereto as listed in the bid schedules as well as any changes to the terms of the offer agreed by the bidder and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The bidder shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) for delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the bidder receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the bidder (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature Block: Employer

Signature Date

Name

Capacity

For the Employer: Municipal Manager
MARULENG MUNICIPALITY

Signature of witness Date

Name of witness

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Schedule of Deviations

1

Subject

Details

2

Subject

Details

3

Subject

Details

4

Subject

Details

By the duly authorized representatives signing this agreement, the employer and the bidder agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the bid data and addenda thereto as listed in the bid schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the bidder and the employer during this process of offer and acceptance.

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

For the Bidder:

Signature(s)

Name(s)

Capacity

(Name and address of organization)

Name &
Signature of
Witness

For the Employer:

Signature(s)

Name(s)

Capacity

(Name and address of organization)

Name &
Signature of
Witness

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C1.2 Contract Data

Section 1.01 The General Conditions of Contract for Construction Works (3rd edition 2015) 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).

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

Each item of data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.

If for some reason that "The General Conditions of Contract for Construction Works (2015)" does not address, "The COLTO General Conditions of Contract 1998 for Road and Bridge Works" will be referred to.

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C1.2.1: CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

SPECIAL CONDITIONS OF CONTRACT

GENERAL

AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT

TRANSFER OF RIGHTS

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C1.2.1 CONDITIONS OF CONTRACT**GENERAL CONDITIONS OF CONTRACT**

This Contract will be based on the "General Conditions of Contract for Construction Works - (3rd edition 2015)", issued by the South African Institution of Civil Engineering (Short title: "**General Conditions of Contract 2015**") and can be obtained from:

SAICE

Waterfall Park
Howick Gardens
Vorna Valley Half way House
Becker Street
MIDRAND
1685
Gauteng Province
Tel: (011) 805-5947/8
Fax: (011) 805-5971.

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

SPECIAL CONDITIONS OF CONTRACT**GENERAL**

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

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

ADDITIONAL SPECIAL CONDITIONS OR AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT**2.1 General**

The following clauses add to, vary or otherwise amend the General Conditions of Contract:

2.1.1 Cession (CL 2.5.1)

Delete the words "without the written consent of the other".

2.1.2 Contractor's Superintendence (CL 4.12)

Add the following sub-clause 4.12.4 to Clause 4.12:

"Where a form is included in the Appendix to the Contract Data for this purpose, the Bidder shall fill in the name of the person he proposes to entrust with the post of Contractor's Site Agent on this Contract in the space provided therefor. Previous experience of this person on work of a similar nature during the past five (5) years is to be entered in the list.

The Contractor's Site Agent shall be on Site at all times when work is being performed.

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The person as approved of by the Engineer in writing shall not be replaced or removed from Site without the written approval of the Engineer.”

2.1.3 Programme (CL 5.6)

Add the following sub-clause 5.6.6 to Clause 5.6:

“Failure on the part of the Contractor to deliver to the Engineer, the

programme of the Works in terms of Clause 5.6.1 and

supporting documents in terms of Clause 5.6.2

Within the period stated in the Contract Data, shall be sufficient cause for the Engineer to retain 25 per centum of the value of the Fixed Charge and Value-related items in assessment of amounts due to the Contractor, until the Contractor has submitted aforementioned first Programme of the Works and Supporting Documents”.

2.1.4 Contractor's Designs and Drawings (CL 5.9.7)

“All designs, calculations, drawings and operation and maintenance manuals shall be fully endorsed by a third party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor.

Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Engineer, the Employer, their agents and assigns, against all claims howsoever arising out of the said design, whether in contract or delict”

2.1.5 Suspension of the Works (CL 5.11)

Add the following sub-clause 5.11.4 to Clause 5.11:

“If the Contractor does not receive from the Employer the amount due under an Interim Payment Certificate within 28 days after expiry of the time stated in sub-clause 6.10.4 within which payment is to be made (except for deductions in accordance with sub-clauses 6.10.1.6 and 6.10.1.7), the Contractor may, after giving 14 days' notice to the Employer, suspend the progress of the Works.

The Contractor's action shall not prejudice his entitlements to a claim in terms of Clause 10.1 and to cancellation of the Contract in terms of Clause 9.3.

If the Contractor subsequently receives full payment of the amount due under such Interim Payment Certificate before giving a notice of cancellation of the Contract, the Contractor shall resume normal working as soon as is reasonably practicable.”

2.1.6 Extension of Time Arising from Abnormal Rainfall (CL 5.12)

Add the following to sub-clause 5.12.2.2 :

“The extension of time to be allowed due to abnormal rainfall shall be calculated separately for each calendar month or part thereof in accordance with the following formula :

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

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

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- Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded
- Nn = Average number of days for the calendar month on which a rainfall of 10 mm or more has been recorded, as derived from existing rainfall records
- Rw = Actual recorded rainfall for the calendar month
- Rn = Average rainfall for the calendar month, as derived from existing rainfall records
- x = 20

The rainfall records which shall provisionally be accepted for calculation purposes are:

Years of record: 2006-2016

Table 1 – RAINFALL RECORDS FOR PERIOD: 2006 – 2016												
RAINFALL STATION: Hoedspruit Lat: 23.8570 Lon: 29.451 Height 1226m												
Average No of Days with Rainfall exceeding 10mm:9.8 days/year												
Average Rainfall: 488.6mm/year station no: 0677802BX												
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
JAN	65.9	39.3	65.9	11	3.4	2.1	1.3	0.7	0	0	38	1/18/2013
FEB	47.3	49.7	47.3	11	1.6	0.9	1.1	0.6	0	0	49	2/26/2006
MAR	58.4	33.2	58.4	11	3	1.3	1.1	0.7	0.1	0	51.5	3/27/2006
APR	43.3	46.6	43.3	11	1.5	1	0.7	0.5	0.1	0	68	4/4/2011
MAY	10.4	14	10.4	11	0.5	0.4	0.3	0.1	0	0	29.2	5/8/2009
JUN	1.7	3.6	1.7	11	0.3	0	0.1	0	0	0	12	6/10/2009
JUL	2.4	4.3	2.4	11	0.3	0.1	0.1	0	0	0	12.1	7/4/2007
AUG	2.3	5.6	2.3	11	0.2	0	0.1	0	0	00	19.2	8/15/2011
SEP	6.6	8.2	6.6	11	0.4	0.4	0.1	0.1	0	0	22.5	9/4/2015
OCT	48.1	29.5	48.1	11	1.5	0.7	1.4	0.6	0	0	38.2	10/29/2009
NOV	97.7	40.5	97.7	11	3.1	2	1.3	1.5	0.2	0	65.5	11/12/2008
DEC	104.6	56.3	104.6	11	3.8	1	1.7	1.9	0.1	0	55	12/16/2014
YR	488.6		67.9		19.5	9.8	9.2	6.8	0.5	0	488.6	

The factor (Nw - Nn) shall be considered to represent a fair allowance for days during which rainfall exceeds 10 mm and the factor (Rw - Rn)/x shall be considered to represent a fair allowance for those days when rainfall does not exceed 10 mm but wet conditions prevent or disrupt work.

The total extension of time shall be the algebraic sum of all monthly totals for the contract period, but if the algebraic sum is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for a part of a month shall be calculated using pro rata values of Nn and Rn."

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2.1.7 Guarantee (Security) (CL 6.1)

Delete the contents of the first paragraph of Clause 6.2 and insert:

"The Contractor shall deliver to the Employer within such time as may be stated in the Contract Data a Demand Guarantee, of Insurance Company registered in terms of the Short-term Insurance Act (Act 53 of 1998) or registered Commercial Bank, in a sum equal to the amount stated in the Contract Data. The Demand Guarantee shall be issued by an entity approved by the Employer, and shall conform in all respects to the format contained in the Appendix to the Contract Data.

Wherever a joint venture constitutes the contracting party, the Demand Guarantee shall be issued on behalf of the joint venture.

Failure to produce an acceptable Demand Guarantee within the period stated in Clause 2.2.8 of the Contract Data is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 with specific reference to sub-clause 9.2.2.5 as amended in the Special Conditions of Contract."

2.1.8 Variations (CL 6.3)

Omit the words "Provided that" under Clause 6.3.2 and omit Clause 6.3.2.1.

2.1.9 Interim Payments (CL 6.10.1)

Add to the end of Clause 6.10.1 the following paragraph:

"The Contractor shall complete the 'Contractor's Monthly Report Schedule', which pro forma documentation is obtainable from the Engineer. Pursuant to Sub-Clause (1), these, duly signed by all concerned, together with the Contractor's statement and a VAT invoice in original format are to be submitted to the Engineer. Issue by the Engineer to the Employer and Contractor of any signed payment certificate is conditional to this information being fully endorsed, accurately and timeously submitted to the Engineer".

Add to the end of Clause 6.10.1.5 the following paragraph:

"All documentary evidence of such materials shall be unambiguous with respect to ownership having fully passed to the Contractor on or before the date of submittal of the Contractor's monthly statement.

Should the Contractor fail to supply unambiguous documentary evidence, he shall, prior to submittal of his monthly statement, deliver to the Employer a Guarantor Guarantee in the form contained in the Appendices to the Contract Data."

2.1.10 Variations Exceeding 15 Per Cent (CL 6.11)

In sub-clause 6.11.1.3 omit the words "15 per cent" and replace with "20 per cent".

2.1.11 Insurances (CL 8.6)**2.1.11.1 Contractor to produce proof of payment**

Delete sub-clause 8.6.6 and substitute with:

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"The Contractor shall before commencement of the Works produce to the Engineer:

8.6.6.1 The policies by which the insurances are effected,

8.6.6.2 Proof that due payment of all premiums there under, covering the full required period has been made, and

8.6.6.3 Proof of continuity of the policies for the required period.

Should, during the currency of the Contract, the required period of insurance be extended for any reason, the Contractor shall timeously extend (so as to maintain) the said insurances for the full extended duration.

The Engineer shall be empowered to withhold all payment certificates until the Contractor has complied with his obligations in terms of this Clause 8.6."

2.1.11.2 Remedy of Contractor's failure to insure

Delete sub-clause 8.6.7 and substitute with:

"Failure on the part of the Contractor to effect and keep in force any of the insurances referred to in Clause 8.6.1 and its sub-clauses, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 and with specific reference to sub-clause 9.2.2.5, as amended, in the Special Conditions of Contract."

2.1.12 Termination of the Contract (CL 9.1)

Alter the numbering of:

Clause 9.1.5 to 9.1.6,
Clause 9.1.6 to 9.1.7 and

insert the following new clause 9.1.5:

"The Employer shall be entitled to cancel the Contract, at any time for the Employer's convenience, by giving written notice of such cancellation to the Contractor. The termination shall take effect 28 days after the later of the dates which the Contractor receives this written notice or the Employer returns the Demand Guarantee. The Employer shall not cancel the Contract under this sub-clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor.

This restriction on the Employer shall lapse 18 months after the date of receipt by the Contractor of cancellation in terms of this sub-clause".

2.1.13 Termination by Employer (CL 9.2)

Delete the contents of Clause 9.2 and substitute with:

"9.2.1 The Employer may terminate the Contract by written notice to the Contractor if:

9.2.1.1 Sequestration of the Contractor's estate is ordered by a Court with due jurisdiction, or

9.2.1.2 The Contractor publishes a notice of surrender or presents a petition for the surrender of his estate as insolvent, or makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or

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(being a company) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or if the Contractor assigns the Contract without having first obtained the Employer's consent in writing, or if execution is levied on his goods, or

9.2.1.3 The Contractor, or anyone on his behalf, or in his employ, offers to any person in the employ of the Employer or the Engineer, a gratuity or reward or commission, or

9.2.1.4 The Contractor furnished materially inaccurate information in his Bid, which had a bearing on the award of the Contract, or

9.2.1.5 The Contractor has abandoned the Contract

9.2.2 If the Contractor:

9.2.2.1 Has failed to commence the Works in terms of Clause 5.3 hereof, or has suspended the progress of the Works for fourteen (14) days after receiving from the Engineer written notice to proceed, or

9.2.2.2 Has failed to provide the Guarantee in terms of Clause 6.2 within the time stipulated in the Contract Data, or

9.2.2.3 Has failed to proceed with the Works with due diligence, or

9.2.2.4 Has failed to remove materials from the Site or to pull down and replace work within fourteen (14) days after receiving from the Engineer written notice that the said materials or work have been condemned and rejected by the Engineer in terms of these conditions, or

9.2.2.5 Is not executing the Works in accordance with the Contract, or is neglecting to carry out his obligations under the Contract, or

9.2.2.6 Has, to the detriment of good workmanship or in defiance of the Engineer's instructions to the contrary, sublet any part of the Contract, or

9.2.2.7 Has assigned the Contract or any part thereof without the Employer's consent in writing, then the Employer may give the Contractor 14 days' notice to rectify the default, and if the Contractor fails to rectify the default in said 14 days, then, without further notice, notify the Contractor in writing of the termination of the Contract and expel the Contractor and order the Contractor to vacate the site within 24 hours of issue of the Notice of Termination and to hand the Site over to the Employer, and the Employer may then enter upon the Site and the Works without affecting the rights and powers conferred on the Employer or the Engineer by the Contract and the Employer may himself complete the Works or may employ another contractor to complete the Works, and the Employer or such other contractor may use for such completion so much of the Construction Equipment, Temporary Works and materials brought onto the Site by the Contractor as the Employer may think proper, and the Employer may at any time sell any of the said Construction Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances the Contractor shall forthwith vacate the Site and shall not be entitled to remain on the Site on the grounds that he is entitled to do so on a right of retention until amounts due to him have been paid, neither will the Contractor be entitled to any further payments in terms of this Contract.

9.2.3 If the Contractor, having been given notice to rectify a default in terms of 55.2 above, rectifies said default, but later repeats the same or substantially the same default, then the Employer may notify the Contractor of the immediate termination of the Contract, and proceed as stated in the paragraph following the word "writing" in Clause 55.2.7 above.

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9.2.4 Should the amounts the Employer must pay to complete the Works exceed the sum that would have been payable to the Contractor on due completion by him, then the Contractor shall upon demand pay to the Employer the difference, and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly. Provided that should the Contractor on demand not pay the amount of such excess to the Employer, such sum may be determined and deducted by the Employer from any sum due to or that may become due to the Contractor under this or any previous or subsequent contract between the Contractor and the Employer.”

2.1.14 Termination by the Contractor (CL 9.3)

Add the following paragraph as Clause 9.3.5:

“In addition to, or as an alternative to the rights to termination contained in this Clause 9.3, the Contractor may notify the default to the Employer, with a copy to the Engineer, and if the default is not rectified within 10 days the Contractor may suspend progress of the works until a date 7 days after the default is rectified. The Contractor shall be entitled to extension of time to the extent of delay caused by or resulting from such suspension, and to payment of additional costs caused by or resulting from the suspension. Such extension of time and additional costs shall be promptly ascertained by the Engineer, who shall then grant the extension of time and include the additional costs in all future payment certificates. Such suspension, extension of time and/or payment of additional costs, shall not prejudice the Contractor’s rights to cancel the contract.”

PRIORITY OF DOCUMENTS

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

- the Form of Offer and Acceptance.
- amplifications of the General Conditions of Contract within the Contract Data.
- additional special conditions or amendments to the General Conditions of Contract within the Contract Data.
- the General Conditions of Contract.
- the Specifications, Drawings, Schedules and other documents forming part of the Contract (in that order) contained in the Scope of Work and the Site Information.

If any ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

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TRANSFER OF RIGHTS

TRANSFER OF RIGHTS AND INDEMNITY (To be completed during construction by successful Bidder only)

Claim for materials on site, Payment Certificate No. Date:

Contract No: for (contract title)

I, the undersigned (name of signatory) in my capacity as

..... of (name of Contractor)

duly authorized hereto on behalf of the Contractor hereby transfer, cede and assign all the Contractor's rights, title and interest in and to the materials and goods, for which evidence of bona fide ownership is attached hereto, unto and in favor of (name of Employer) insofar as the Contractor retains actual control of the materials and goods, the right of ownership thereof passes to the Employer by *constitutum possessorium*.

I herewith indemnify the Employer against any claim to and in respect of said materials by reason of the Contractor's sequestration or liquidation or of any defect in the Contractor's title to the materials and agree that no payment for materials on site will be made by the Employer until such time as I have submitted documentary proof of bona fide ownership of the said materials and goods.

This transfer shall become effective upon conclusion of the Contractor receiving payment from the Employer or from any other person on behalf of the Employer for the materials and goods as Materials on Site, payment of retention money thereon excluded.

I further confirm that I am fully responsible for all materials and goods listed under this Transfer of Rights and that they have been insured adequately against all risks and will remain insured until they are built into or used in the permanent works and taken over by the Employer.

This certificate of Transfer of Rights applies only to the materials and goods as listed in the following table:

Description of Item	Unit	Quantity	Rate	Amount	Supplier
Total Value of Materials and goods					

Signed by: Date:
for and on behalf of the Contractor.

Witnessed by: Date:

NOTE: This form, together with the documentary proof of ownership or proof of payment by the Contractor to the supplier, shall accompany the Contractor's claim for payment for materials on site in terms of **Clause 6.10.1.5 of the General Conditions of Contract 2015.**

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C1.2.2 PART A: CONTRACT DATA PROVIDED BY THE EMPLOYER

The following contract specific data are applicable to this contract.

REFERENCE CONTRACT SPECIFIC DATA BY THE EMPLOYER

Clause 1.1.15: **Name of Employer: MARULENG MUNICIPALITY represented by Head of Department: Technical Services**

Clause 1.2.1: **Address of Employer:**

Physical:

Postal:

The Employer's address for receipt of communications is

65 Springbok Street
HOEDSPUIT
1380

P O BOX 627
HOEDSPUIT
1380

Telephone No: 015 793 2409

Fax No: 015 793 2341

Clause 1.1.16: **Name of Engineer**
'Engineer' means any Director, Associate or Professional Engineer appointed by a Director of Morwa Consulting Engineers to fulfil the functions of the Engineer in terms of the Contract Data.

Clause 1.2.1: **Address of Engineer:**

Physical:

Postal:

The Engineer's address for receipt of communications is:

MORWA CONSULTING ENGINEERS
06 Hans Van Rensburg, JCJ Limpro Unit 07
Polokwane
0700

P.O Box 4342
Polokwane
0700

Telephone No: 015 291 1262

email: mahlatse@morwa.co.za

Clause 3.13: The Engineer is required to obtain the specific approval of the Employer for the following:

- Nominating the Engineer's Representative in terms of CI 3.2.1.
- Delegation of Engineer's authority in terms of CI 3.2.4.
- The issuing of instructions for dealing with fossils and the like in terms of CI 4.7.1
- The issuing of an instruction to accelerate progress in terms of CI 5.7.3.
- Granting permission to work during non-working times in terms of CI 5.8.1.
- The issuing of further drawings or instructions in terms of CI 5.9.1.
- Suspend the progress of the works in terms of CI 5.11.1.
- The reduction of a penalty for delay in terms of CI 5.13.2.
- The issuing of a variation order in terms of CI 6.3.2.
- Issuing of instructions to carry out work on a daywork basis in terms of CI 6.4.1.4.
- The determination of additional or reduced costs arising from changes in legislation in terms of CI 6.8.4.
- The agreeing of the adjustment of the sums for general items in terms of CI 6.11.
- Authorizing the Contractor to repair and make good excepted risks in terms of CI 8.2.2.

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The giving of a ruling on a contractor's claim in terms of CI 10.1.5.
 The agreeing of an extension to the 28 period in terms of CI 10.1.5.1.
 The inclusion of credits in the next payment certificate in terms of CI 10.1.5.2.

- Clause 6.2: The Guarantee shall be delivered within 14 days after receivable of the Acceptance document from the Employer.
- Clause 6.2: The Liability of the Guarantee shall be for 10% of the Accepted Bid Sum.
- Clause 5.3: The contractor shall commence executing the work within 14 days of the Commencement date.
- Clause 5.6.1 & 5.6.2: The Contractor shall deliver to the Engineer, within 14 days calculated from the Commencement Date, a realistic programme in terms of Clause 5.6.1 and supporting documents in terms of Clause 5.6.2.
- Clause 8.6.1.1.3: The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is **NIL**
- Clause 8.6.1.2: Special risk insurance issued by SASRIA is required.
- Clause 8.6.1.3: The limit of indemnity for liability insurance required should not be less than the contract amount.
- Clause 5.13.1: The penalty for failing to complete the works is **R5 000.00** of the Total Bid Sum per Calendar Day
- Clause 6.8.2: The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:
- $$\text{Contract Price Adjustment Factor} = (1 - x) \frac{aL_t}{L_o} + \frac{bP_t}{P_o} + \frac{cM_t}{M_o} + \frac{dF_t}{F_o} - 1$$
- rounded off to the fourth decimal place.
- Coefficients for calculating Contract price Adjustment Factor shall be:
 Value of x is 0.10
- a = 0.15 b = 0.20 c = 0.55 d = 0.10
- L is the "Labour Index" and shall be the "Consumer Price Index – for Polokwane Area" In Release P 0141.1 Table 21
- The base month is: "the month prior to the closing of the Bid"
 No Contract price Adjustment will be done if contract period is less than 7 months.
- Clause 6.83: Price adjustments for variations in the costs of special materials are not allowed.
- Clause 6.10.1.5: The percentage advance on materials not yet built into the Permanent Works is: 80%
- Clause 6.10.3: The percentage retention on the amounts due to the Contractor is 5 %, excluding contract price adjustment, contingencies and VAT, and limited to 10% of the contract amount, excluding contract price adjustment, contingencies and VAT.
- Clause 6.10.5: A Retention money guarantee will be not permitted.
- Clause 7.8.1: The Defects Liability Period is 12 months measured from the date of the Certificate of Completion.
- Clause 10.7.1: Dispute Resolution shall be by Adjudication.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C1.2.2: PART B: CONTRACT DATA PROVIDED BY THE CONTRACTOR

The following contract specific data are applicable to this contract:

REFERENCE CONTRACT SPECIFIC DATA BY THE CONTRACTOR

Clause 1.1.9: **Name of Contractor:**

Clause 1.2.1: **Address of the Contractor:**

The Contractor's address for receipt of communication is:

Physical:

Postal:

—

.....

—

.....

—

.....

—

.....

E-Mail:

Telephone No:

Fax No:

Clause 5.5 The works shall be completed withinmonths (including special non-working days and the yearend break).

Clause 6.8.3: The variation in cost of all special materials is to be provided in the table SM 1 for special materials.
The rates and prices for the special materials shall be furnished by the Bidder, which rates and prices shall not include VAT but shall include all other obligatory taxes and levies. The quoted price is the ruling price on the Month prior to close of bid.

TABLE: SM1

Special Materials*	Unit	Rate or Price for the base month
Bitumen (specify type)		
.....
.....
.....
.....
.....

*Contractor to indicate the type, unit and rate of special material to be listed. The Contractor shall substantiate the above rates or prices with acceptable documentary evidence. Contractor to provide any other Special Materials if deemed necessary.

N.B. Diesel, reinforcing steel, and cement will not be accepted as special material.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C1.3 Form of Guarantee - Pro Forma

Contract No

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

.....

(Hereinafter called "the Contactor") on the day of 20.....

for

in the **MARULENG MUNICIPALITY** of the Limpopo Province.

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

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

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

The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completion date which the Employer may make, give, concede or agree to under the said Contract.

This guarantee shall be limited to the payment of a sum of money.

The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.

This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.

Our total liability hereunder shall not exceed the Guaranteed Sum of:

.....

.....Rand (in words);

R..... (in figures)

The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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

.....

.....

IN WITNESS WHEREOF this guarantee has been executed by us at

on this day of 20

Signature

Duly authorized to sign on behalf of

Address

.....

.....

As witnesses:

1.....

2.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C1.4: Agreement with Adjudicator

This agreement is made on the.....day of 20.....between: the Employer
(*name of company / organisation*).....
of (*address*).....
.....and the Contractor
(*name of company / organisation*)
of (*address*).....
..... (hereinafter called **the Parties**)

and
(*name*).....
of (*address*)
..... (hereinafter called **the Adjudicator**)

Disputes or differences may arise/have arisen* between the Parties under a Contract dated.....
and known as Contract No.....
(*Contract title*).....

and these disputes or differences shall be/have been* referred to adjudication in accordance with the CIDB Adjudication Procedure, (hereinafter called "**the Procedure**") and the Adjudicator may be or has been requested to act.

(* *Delete as necessary*)

IT IS NOW AGREED as follows:

The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.

The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.

The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.

The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.

The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SIGNED by:

(Signature):	(Signature):	(Signature):
Name:	Name:	Name:

who warrants that he/ she is duly authorised to sign for and on behalf of the First Party in the presence of	who warrants that he/ she is duly authorised to sign for and on behalf of the Second Party in the presence of	the Adjudicator in the presence of
--	--	--

Witness: (Signature).....	Witness: (Signature).....	Witness: (Signature).....
Name:	Name:	Name:
Address:	Address:	Address:
.....
.....
Date:	Date:	Date:

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C1.5: Agreement In Terms Of Section 37(2) Of The Occupational Health And Safety Act No 85 Of 1993

THIS AGREEMENT is made between The MARULENG MUNICIPALITY represented by Head of Department: Technical Services.

(hereinafter called the EMPLOYER of the one part, herein represented by:

.....
in his capacity as: ;

AND:

(hereinafter called the CONTRACTOR) of the other part, herein represented by

.....
in his capacity as:

duly authorized to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT:
in the MARULENG MUNICIPALITY of the Limpopo Province

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHSA Amendment Act No 181/1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.

The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.

The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.

The CONTRACTOR agrees that any duly authorized officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Thus signed at for and on behalf of the **CONTRACTOR**

on this the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

Thus signed at for and on behalf of the **EMPLOYER** on this

the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**C2.1: PRICING INSTRUCTIONS****GENERAL**

The pricing instructions describe the criteria and assumptions which will be assumed in the Contract that the Bidder has taken into account when developing his prices. The Bills of Quantities record the Contractor's rates for providing supplies, services, engineering and construction works in accordance with the Scope of Work.

The terms of payment and the provisions for price adjustment, if applicable, are established in the Contract Data. These items are not described in the Pricing Data.

The Bidder's obligations in pricing the Bid offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bid contained in Annexure F of SANS 294, as amended in and read in conjunction with the Bid Data.

DOCUMENTS MUTUALLY EXPLANATORY

The documents forming the Contract are to be taken as mutually explanatory of one another. The Bill of Quantities forms an integral part of the Contract Documents and shall be read in conjunction with the Bid Data, Contract Data, Scope of Work, Site Information General and Special Conditions of Contract, the Specifications and the Drawings.

DEFINITIONS

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

Unit	:	The unit of measurement for each item of work as defined in the 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 payment per unit of measurement at which the Bidder Bids to do the work.
Amount	:	The product of the quantity and the rate Bided for an item
Sum	:	An amount Bided for an item, the extent of which is described in the Schedule of Quantities, the specifications or elsewhere but the quantity of work of which is not measured in any units.
Prime Cost (or PC item)	:	A sum fixed by the Engineer and entered in the Schedule of Quantities as the net sum provided to cover the cost of specific goods or materials to be supplied under the contract, or the net sum to be paid by the Contractor to merchants or others for such articles or materials. ¹
Provisional Sum	:	A sum of money fixed by the Engineer and entered in the Schedule of Quantities to provide for work not defined at the Bid stage and includes any allowance specifically made for unforeseen contingencies. ¹
Extra Over (or EO)	:	Qualifies an operation (or combination of operations) which is common in a varying degree to a number of other operations and which is scheduled once as "extra over" those other operations in order to avoid a multiplicity of items each reflecting the degree to which the common operations applies. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the other. ¹

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

DESCRIPTIONS

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

REFERENCES

The general conditions of contract, the special conditions of contract (if any), the specifications (including the project specification) and the drawings are to be read in conjunction with the schedule of quantities.

Descriptions in the schedule of quantities are abbreviated and the schedule has been drawn up generally in accordance with the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works. Should any requirement of the measurement and payment clause of the applicable standardised specification², or the project specification², or the particular specification(s)² conflict with the terms of the schedule or, when relevant, COLTO¹, the requirement of the standardised, project or particular specification, as applicable, shall prevail.

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste.

The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.

A price or rate is to be entered against each item in the schedule 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 schedule

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

UNITS OF MEASUREMENT

The units of measurement indicated in the Bill of Quantities are metric

units. The following abbreviations are used in the Bill of Quantities:

%	=	per cent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	meganewton
MN-m	=	meganewton-metre
MPa	=	megapascal
kPa	=	kilopascal
m ²	=	square metre
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
m ² -pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)
R/only	=	Rate only
W/day	=	Work day

NET MEASUREMENTS

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for off-cuts and waste.

QUANTITIES

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

The item numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition).

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CURRENCY

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of a cent shall be discounted.

VALUE ADDED TAX

Value Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary.

RATES AND PRICES**11.1 General**

The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.

The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the work described under the several 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 documents on which the Bid is based, 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.

Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.

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. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.

Should the Contractor group a number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item. Should the Contractor indicate against any item that compensation for such item is included in another item; the rate for the item included in another item shall be deemed nil.

A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

11.2 "Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under the item or where the item is to be considered as an alternative to another item for which a quantity is given.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

If there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding and the error of extension as entered in the Bid offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

CONTRACT No. MLM/SCM/63/2024

C2.2 Bill of Quantities

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**C2.1: PRICING INSTRUCTIONS****GENERAL**

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CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste.

The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.

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CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	meganewton
MN-m	=	meganewton-metre
MPa	=	megapascal
kPa	=	kilopascal
m ²	=	square metre
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
m ² -pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)
R/only	=	Rate only
W/day	=	Work day

NET MEASUREMENTS

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for off-cuts and waste.

QUANTITIES

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

The item numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition).

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CURRENCY

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of a cent shall be discounted.

VALUE ADDED TAX

Value Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary.

RATES AND PRICES**11.1 General**

The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.

The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the work described under the several 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 documents on which the Bid is based, 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.

Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.

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. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.

Should the Contractor group a number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item. Should the Contractor indicate against any item that compensation for such item is included in another item; the rate for the item included in another item shall be deemed nil.

A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

11.2 "Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under the item or where the item is to be considered as an alternative to another item for which a quantity is given.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

If there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding and the error of extension as entered in the Bid offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CONTRACT No. MLM/SCM/63/2024

C2.2 Bill of Quantities

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Bill of Quantities

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**C3: SCOPE OF WORK****Table of Contents:****C3.1 STANDARD SPECIFICATIONS****C3.2 PROJECT SPECIFICATIONS****PART A: GENERAL**

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CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C3.3 PARTICULAR SPECIFICATIONS**SECTION EMP: ENVIRONMENTAL MANAGEMENT SPECIFICATION**

- | | |
|----|---|
| 1 | General
Training and Induction of Employees
Complaints Register and Environmental Incident Book
Site Cleanliness and Neatness
Access
Borrow Pits
Dust Control / Air Quality
Fauna
Fire Prevention and Control |
| 10 | Grave Sites
Materials Handling and Spills Management
Noise
Pollution Control
Rivers and Streams
Safety
Soil Management
Worker Conduct
Traffic Disturbances and Diversions
Vegetation
Waste Management |

SECTION DWK: DAYWORKS

- Scope
- Type of Work
- Materials
- Construction Plant Hire
- Salaries and Wages of Workmen
- Measurement and Payment

SECTION OHS: PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

- Introduction and Background
- Pre-construction Health and Safety specification 2.1 Scope
- 2.2 Interpretations
- 2.3 Minimum Administrative requirements
- 2.4 Health and Safety Induction, Training and Equipment
- 2.5 Preliminary Hazard Identification and Risk Assessment
- 2.6 Permits
- 2.7 Incentives and Penalties
- 2.8 Specific Project Requirements
- Financial Provision for Health and Safety
- Guidelines for the preparation of a Typical OH&S Plan

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C3.1 STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are the **COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 edition**.

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria.

SANS 10396: 2003: Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures

SANS 1914-1 to 6 (2002) : Targeted Construction Procurement

SANS 1921 – 1 (2004): Construction and Management Requirements for Works Contracts
Part 1: General Engineering and Construction Works

SANS 1921-5 (2004): Generic Labour Intensive Specification
Part 5: Earthworks.

and where accommodation of traffic is involved:

SANS 1921-2 (2004): Construction and Management Requirements for Works Contracts
Part 2: Accommodation of Traffic on Public Roads Occupied by the Contractor.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**C3.2: PROJECT SPECIFICATIONS****STATUS**

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

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

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

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

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

PART A: GENERAL**PS-1 PROJECT DESCRIPTION**

The project entails the Construction of Madeira Access Road. The total length to be upgraded in this contract of three (03) Streets with an approximately total length of 5.183km and the work will be divided in two section, section A will be the length of 3.239km that the work will cover all the activities and section B will only be to a length of 1.944km that will cover the work left by the previous contractor

SECTION A

The project entails the Construction of Madeira Access Road. The total length to be upgraded in this contract of three (03) Streets with an approximately total length of 3.239 km with the width of 6.50m of road and associated stormwater drainage system. The work will include the upgrading of the one T-junction (D21, RAL intersection connection) next to Sekororo Hospital.

The employer's objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines.

The contract shall cover the upgrading from gravel to interlock paving block and tar at D21 intersection (3.239km) into the following:

Street 01: Ch 2100 – to – Ch 4500	(2400m)
Street 03: Ch 00 – to – Ch 297	(297m)
School Access: Ch 00 – to – Ch 42	(42m)
D21, RAL intersection connection, next to Sekororo Hospital.	(500m)

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Setting out of the road.
 Accommodation of traffic. (Establishment of detours);
 Relocation of existing service.
 Site clearance.
 Mass Earthworks.
 Construction of box and pipe culvert. (Concrete pipe and portal culverts)
 Pavement layer works (selected layer, stabilized sub-base and stabilized base).
 Stone pitched for soil erosion;
 Construction of Sub-Soil Drainage
 Sifted river sand and interlocking paving blocks
 Prime Coat and Hot Mix Asphalt Seal (50mm HMA on RAL Road)
 Road signs and Road markings;
 Finishing of the road and clearing site.

Stormwater drainage structures construction and upgrading:

Construction of Sub-soil drainage
 Repair the existing bridge.
 Repair the existing culverts.
 Install new drainage culverts and access culverts.
 Retaining wall;
 Gabions;
 Guardrails
 Install new culverts pipe with catchment outlet and inlet
 Install of Pre-cast concrete Kerb and the edge breaks;
 Construction of Concrete side drains (V-drain) and edge beams;
 Line the side drains with Concrete.

The following pavement design is proposed for the upgrading from gravel to paving:

Material Standards			
Layer no	Description	TRH14 Material type	Layer thickness
1	Interlock Paving Blocks		80 mm
2	Sifted river Sand		20 mm
3	Stabilised base course	C3	150 mm
4	Subbase layer	C4	150 mm
5	Selected subgrade-insitu	G7	150 mm
6	Shoulder fill layer	G7	150 mm
7	Fill layers	G9	150 mm

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The following pavement design is proposed for the intersection and connections of D21 RAL:

Layer no	Material Standards		
	Description	TRH14 Material type	Layer thickness
1	Hot Mix Asphalt		50 mm
2	Base course	G1	150 mm
3	Stabilised Subbase layer	C3	150 mm
4	Selected subgrade	G6	150 mm
5	Selected insitu-Roadbed	G9	150 mm
6	Shoulder fill layer	G7	150 mm

SECTION B**SECTION B (1)**

The work to be covered under this section is from base correction and stabilizing the base, Install of Pre-cast concrete Kerbs and the edge breaks, construction of 20mm sifted river sand and 80mm interlocking paving blocks. Wing walls around the culvert structures.

Base level done

Street 01: Ch 4500 – to – Ch 6664 (1264m)

SECTION B (2)

The work to be covered under this section is from shoulders (sidewalks) and Wing walls around the culvert structures.

Paving Blocks done

Street 01: Ch 4500 – to – Ch 6664 (900m)

Street 02: Ch 00 – to – Ch 280 (280m)

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PS-2 DESCRIPTION OF THE SITE AND ACCESS**2.1 Location of site**

The project is located in Madeira Villages about 58km east of Tzaneen in Maruleng Local Municipality of Mopani District Municipality in Limpopo Province.

Below are the coordinates for the site:

Table 2.1.1 Project Co-ordinates		
	Latitude (S)	Longitude (E)
Start	24 ⁰ 14'53.65"	30 ⁰ 25'39.00"
Halfway	24 ⁰ 15'35.52"	30 ⁰ 25'41.43"
End	24 ⁰ 15'01.45"	30 ⁰ 26'56.79"

2.2 Access to site

The contractor shall be responsible for the maintenance and reinstatement of damage caused by him or his agents/deliveries to vehicular access tracks and rights of way. No damage to fauna and flora located outside the limits of the road reserve will be permitted on the contract.

The contractor shall take cognizance of the aforementioned items concerning roads and tracks and allow for any costs in his Bid under the relevant section in the Bill of Quantities.

PS-3 DETAILS OF THE WORK

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

3.6 Climatic conditions

The proposed development is located in a summer rainfall region with rainfall that occurs mainly in storms of short duration with high intensities. Sunny and hot summer days with cold winter days.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

3.7 Labour recruitment conditions

A Project Steering Committee (PSC) will be established and is a vital means of communication between all parties involved with the project. The composition of the PSC comprises representation by the Employer, the Engineer and formal structures within the community (at least 4 people).

The contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PSC, and this representative may be also required to attend the monthly PSC meetings.

It is mandatory that the Contractor shall interact with the community via proactive project liaison and project participation by its leaders and constituted organizations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

Local labour is to be used and the employment of such labour is to be done in conjunction with the PSC.

The PSC shall appoint a Community liaison officer (C.L.O.) (which shall be remunerated under the contract) who shall be in full time employ of the contract. The duties of the C.L.O. shall consist inter alia of the following:

- To be available on site daily between the hour of 07:00 and 17:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 17:00 in the afternoon.

- To communicate daily with regard to number and skills, to facilitate in labour disputes and to assist in their resolution.

- His/her remuneration shall be R4500 per Month.

- The minimum labour/General worker rate shall be R220.00 as determined by the Municipality

- To attend all meetings in which the community and/or labour are present or are required to be represented.

- To attend all PSC meeting to report on labour.

- To assist in the identification and screening of laborers from the community in accordance with the contractor's requirements.

- To advise and inform temporary laborers of their conditions of employment and to inform temporary laborers as early as possible when their period of employment will be terminated.

- To attend disciplinary proceedings to ensure that hearings are fair and reasonable.

- To keep a daily written record of his interviews and community liaison, labour force etc.

- To attend monthly site meetings and report in writing on labour and contract matters.

- Keeping a data base of available labour.

- All such other duties as agreed upon between all parties concerned.

- Compile a list of available skills in the area (skills audit).

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.11 Construction in confined Areas

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

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

PS-4 CONSTRUCTION AND MANAGEMENT REQUIREMENTS**4.1 General**

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

Certain aspects however require further attention as described hereafter.

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

The reduced drawings which form part of the Bid documents shall be used for Bidding purposes only and is attached at the back of this document under section C4.3.

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense re-produce further paper prints required for the construction of the work.

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

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

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

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.3 Responsibilities for design and construction *(Read with SANS 1921 – 1:2004 Clause 4.2)*

4.3.1 The responsibility strategy followed in this contract shall be A.

4.3.2 The structural engineer responsible for the design in accordance with the specification is: Morwa Consulting Engineers.

4.4 Planning, Programme and Method Statements *(Read with SANS 1921-1:2004 clause 4.3)***4.4.1 Preliminary programme**

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

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

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

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

The Contract will be as Bided by the contractor. Plant and personnel requirements to complete the project must be incorporated in the Bid and shown on the programme.

A high standard of traffic accommodation

The relocation of services

Ancillary works by Emerging Contractors

4.4.2 Programme in terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the Bid shall be used as basis for this programme..

The following must be stated on the programme:

2 weeks must be allocated at the start of the project for the setting out and confirmation of survey benchmarks. No work will be allowed prior to the survey confirmation process being completed.

The quantity of work applicable to each bar item as well as the rate at which the work will be completed.

A budget of the value of completed work, month by month, for the full contract period.

The critical path.

Work to be undertaken by Local Contractor (if applicable)

Training Courses

Schedule of plant and resources to be utilized

The Contractor's attention is also drawn to clause 5.7 of the General Conditions of Contract 2015.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.4.3 Time for Completion

The Time for Completion shall be 16 months as indicated under section C1.2. Contract Data. The project is a **multi-year** project and the duration will be aligned with the available budget for that financial year.

No standing time will be applicable for the time between the allocations of different financial years. The Contractor will be expected to establish and de-establish between allocations of funds as made available by the Client (Maruleng Municipality).

4.4.4 Delay in Completion

The Contractor shall organise the Works in such a manner that no delays occur. Delays due to faulty organisation or lack or shortage of materials or labour or co-operation with other parties or to any other cause within the control of the Contractor will not be counted and full power is reserved by the Engineer to order the Contractor to expedite the work should the work, in the opinion of the Engineer, not progress in a satisfactory way.

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

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

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

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

The Contractor shall pay special attention to the management and disposal of water and storm water on the site. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of the Contractor's failure to properly manage rain and surface water, will not be considered.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.7 Earthworks *(Read with SANS 1921 – 1 : 2004 clause 4.10)***4.7.1 Borrow pits and spoil areas**

The borrow pits to be used for this contract shall be pointed out at the Site Inspection. The Contractor shall be permitted to use only those borrow pits approved by the Engineer.

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

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

4.8 Testing *(Read with SANS 1921 – 1 : 2004 clause 4.11)***4.8.1 Process control**

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

4.8.2 Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer shall have his own acceptance control tests carried out by the dedicated site laboratory as approved by the client. The cost of acceptance testing shall be to the account of the client.

4.9 Site Establishment *(Read with SANS 1921 – 1 : 2004 clause 4.14)***4.9.1 Contractor's camp site and depot**

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

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

The Contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment shall be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts Bided for the various items of work for which these services are required.

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**4.9.2 Accommodation of Employees**

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

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

No informal housing or squatting will be allowed.

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

4.10 Survey beacons *(Read with SANS 1921 – 1 : 2004 clause 4.15)*

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

4.11 Existing Services *(Read with SANS 1921 – 1: 2004 clause 4.17)*

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

It is the contractors responsibility to identified services that will interact with the construction work. The contractor will be responsible to do the application and negotiation on the relocation of the sifting of services.

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

Services belonging to the following service owners will be encountered.

SERVICE OWNER	TYPE OF SERVICE
Eskom	Electrical/Power lines
Mopani District Municipality	Waterlines and reticulation within the rural area
Department of Water and Sanitation	Bulk water lines
Property Authority	Land owner
Private owners	Fence line

A provisional amount is included in the bill of quantities for the protection and/or shifting of services.

Two weeks prior to commencing construction activities in a particular area, the Contractor shall also diligently enquire of local landowners as to whether there are any other known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Engineer immediately. The contractor shall make provision in his programme for the location and/or shifting of services.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

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

4.12 Health and Safety *(Read with SANS 1921 - 1: 2004 clause 4.18)***4.12.1 General statement**

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in section C1.5.

4.12.2 Health and Safety Specifications and PlansEmployer's Health and Safety Specification

The Employer's Health and Safety Specification is included in Section C3.3, of the Bid documents as part of the Particular Specifications.

Bidder's Health and Safety Plan

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

- a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 30;
- pro-active identification of potential hazards and unsafe working conditions;
- provision of a safe working environment and equipment;
- statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

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

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

4.12.3 Cost of compliance with the OHS Construction Regulations

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

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

Contractor to ensure that he is compliant to all COVID-19 regulations and any other health and safety risk that may appear similar to COVID-19. Pricing of OHS requirements in the Bill of Quantities should cover all costs for measures that need to be taken to be compliant on these special risks.

4.13 Requirements for Accommodation of Traffic (*Read with SANS 1921 - 2 : 2004*)**4.13.1 General**

The Contractor will be responsible for the safe and easy passage of public traffic past and on sections of roads of which he has occupation or where work has to be done near traffic.

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

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

4.13.2 Basic Requirements

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

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

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

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

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

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

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4.13.3 Payment

The Contractor's Bided rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the *modus operandi* will be considered.

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

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

4.14.1 Natural Vegetation

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

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

4.14.2 Fires

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

4.14.3 Environmental Management Plan

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

PS-5 Expanded Public Works Programme (EPWP) labour intensive specification**5.1. Labour Regulations****5.1.1 Payment for the labour-intensive component of the works**

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

5.1.2 Applicable labour laws

The Ministerial Determination for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R347 of 4 May 2012, as reproduced below, shall apply to works described in the scope of work as being labour.

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5.1.3 Introduction

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

In this document –

“department” means any department of the State, implementing agent or contractor;

“employer” means any department, implementing agency or contractor that hires workers to work in

elementary occupations on a EPWP;

“worker” means any person working in an elementary occupation on a EPWP;

“elementary occupation” means any occupation involving unskilled or semi-skilled work;

“management” means any person employed by a department or implementing agency to administer or

execute an EPWP;

“task” means a fixed quantity of work;

“task-based work” means work in which a worker is paid a fixed rate for performing a task;

“task-rated worker” means a worker paid on the basis of the number of tasks completed;

“time-rated worker” means a worker paid on the basis of the length of time worked.

5.1.4 Terms of Work

5.1.4.1 Workers on a EPWP are employed on a temporary basis or Contract Basis.

5.1.5 Normal Hours of Work

5.1.5.1 An employer may not set tasks or hours of work that require a worker to work–

more than forty hours in any week

on more than five days in any week; and

for more than eight hours on any day.

5.1.5.2 An employer and worker may agree that a worker will work four days per week. The worker may then

work up to ten hours per day.

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

5.1.6 Meal Breaks

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

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

5.1.6.3 A worker may not work during a meal break. However, an employer may require a worker to perform

duties during a meal break if those duties cannot be left unattended and cannot be performed by

another worker. An employer must take reasonable steps to ensure that a worker is relieved of his

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or her duties during the meal break.

5.1.6.4 A worker is not entitled to payment for the period of a meal break.

However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5.1.7 Special Conditions for Security Guards

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

5.1.7.2 A security guard who works more than ten hours per day must have a meal break of at least one hour

or two breaks of at least 30 minutes each.

5.1.8 Daily Rest Period

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

5.1.9 Weekly Rest Period

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

5.1.10 Sick Leave

5.1.10.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.

5.1.10.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

5.1.10.3 A worker may accumulate a maximum of twelve days' sick leave in a year.

5.1.10.4 Accumulated sick-leave may not be transferred from one contract to another contract.

5.1.10.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

5.1.10.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

5.1.10.7 An employer must pay a worker sick pay on the worker's usual payday.

5.1.10.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –

absent from work for more than two consecutive days; or

absent from work on more than two occasions in any eight-week period.

5.1.10.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

5.1.10.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

5.1.11 Maternity Leave

5.1.11.1 A worker may take up to four consecutive months' unpaid maternity leave.

5.1.11.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.

5.1.11.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

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- 5.1.11.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- 5.1.11.5 A worker may begin maternity leave –
four weeks before the expected date of birth; or
on an earlier date –
if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
if agreed to between employer and worker; or
on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- 5.1.11.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 5.1.12 Family responsibility leave**
- 5.1.12.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
when the employee's child is born;
when the employee's child is sick;
in the event of a death of –
the employee's spouse or life partner;
the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.
- 5.1.13 Statement of Conditions**
- 5.1.13.1 An employer must give a worker a statement containing the following details at the start of employment –
the employer's name and address and the name of the EPWP;
the tasks or job that the worker is to perform; and
the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
the worker's rate of pay and how this is to be calculated;
the training that the worker will receive during the EPWP.
- 5.1.13.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- 5.1.13.3 An employer must supply each worker with a copy of these conditions of employment.

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5.1.14 Keeping Records

- 5.1.14.1 Every employer must keep a written record of at least the following –
- the worker's name and position;
 - in the case of a task-rated worker, the number of tasks completed by the worker;
 - in the case of a time-rated worker, the time worked by the worker;
 - payments made to each worker.
- 5.1.14.2 The employer must keep this record for a period of at least three years after the completion of the EPWP.

5.1.15 Payment

- 5.1.15.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- 5.1.15.2 a worker may not be paid less than the minimum EPWP wage rate of **R200.00** per day
- 5.1.15.3 A task-rated worker will only be paid for tasks that have been completed.
- 5.1.15.4 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- 5.1.15.5 A time-rated worker will be paid at the end of each month.
- 5.1.15.6 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- 5.1.15.7 Payment in cash or by cheque must take place –
- at the workplace or at a place agreed to by the worker;
 - during the worker's working hours or within fifteen minutes of the start or finish of work;
 - in a sealed envelope which becomes the property of the worker.
- 5.1.15.8 An employer must give a worker the following information in writing –
- the period for which payment is made;
 - the numbers of tasks completed or hours worked;
 - the worker's earnings;
 - any money deducted from the payment;
 - the actual amount paid to the worker.
- 5.1.15.9 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it
- 5.1.15.10 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

5.1.16 Deductions

- 5.1.16.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law. i.e UIF
- 5.1.16.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

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- 5.1.16.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- 5.1.16.4 An employer may not require or allow a worker to –
- repay any payment except an overpayment previously made by the employer by mistake;
 - state that the worker received a greater amount of money than the employer actually paid to the worker; or
 - pay the employer or any other person for having been employed.
- 5.1.17 Health and Safety**
- 5.1.17.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- 5.1.17.2 A worker must –
- work in a way that does not endanger his/her health and safety or that of any other person;
 - obey any health and safety instruction;
 - obey all health and safety rules of the EPWP;
 - use any personal protective equipment or clothing issued by the employer;
 - report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.
- 5.1.18 Compensation for Injuries and Diseases**
- 5.1.18.1 it is the responsibility of the contractor to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 5.1.18.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 5.1.18.3 The employer must report the accident or disease to the Compensation Commissioner.
- 5.1.18.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.
- 5.1.19 Termination**
- 5.1.15.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 5.1.19.2 A worker will not receive severance pay on termination.
- 5.1.19.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 5.1.19.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 5.1.19.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

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5.1.20 Certificate of Service

5.1.20.1 On termination of employment, a worker is entitled to a certificate stating –

- (a) the worker's full name;
- (b) the name and address of the employer;
- (c) the EPWP on which the worker worked;
- (d) the work performed by the worker;
- (e) any training received by the worker as part of the EPWP;
- (f) the period for which the worker worked on the EPWP;
- (g) any other information agreed on by the employer and worker.

5.1.21 Contractor's default in payment to Labourers and Employees

Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene.

The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract.

5.1.22 Provision of Hand tools

The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions.

5.1.23 Reporting

The Contractor shall submit monthly returns/reports as specified below:

Signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.

Plant utilization returns

Progress report detailing production output compared to the programme of works intensive and which are undertaken by unskilled or semi-skilled workers.

9.2 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of 3CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

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

Table 1: Skills programme for supervisory and management staff

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

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5.2 Employment of unskilled and semi-skilled workers in labour-intensive works – According to SANS 1914-5.**5.2.1 Requirements for the sourcing and engagement of labour.**

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

5.2.1.2 The rate of pay set for the EPWP per task or per day is **R 200.00/day** as set out by the Maruleng Municipality.

5.2.1.3 Tasks established by the contractor must be such that:

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

5.2.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 5.2.1.3.

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

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

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

55 % women;
40% youth who are between the ages of 18 and 35; and
2% on persons with disabilities.

5.3 Specific provisions pertaining to SANS 1914-5**5.3.1 Definitions**

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

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5.3.2 Contract participation goals

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

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

5.3.3 Terms and conditions for the engagement of targeted labour

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

5.3.4 Variations to SANS 1914-5

5.3.4.1 The definition for net amount shall be amended as follows:
Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.

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

5.3.5 Training of targeted labour

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

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

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

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

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- 5.3.5.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.
- 5.3.5.6 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 5.3.5.1 to 5.3.5.5 above.
- 5.3.5.7 Proof of compliance with the requirements of 5.3.5.1 to 5.3.5.5 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

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PART B. PROJECT SPECIFICATION MATTERS RELATING TO THE STANDARD SPECIFICATIONS**B1 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.

STANDARD AMENDMENTS TO THE STANDARD SPECIFICATIONS ISSUED BY

COLTO No amendments have been issued.

PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS

In certain clauses the Standard Specifications allow a choice to be specified in the 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.

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B2 SECTION 1100: DEFINITIONS AND TERMS**B1115 GENERAL CONDITIONS OF CONTRACT**

REPLACE CLAUSE 1115 WITH THE FOLLOWING:

The General Conditions applicable to this Contract shall be the General Conditions of Contract for Construction Works, third edition, 3rd print (2015).

All references to the COLTO General Conditions of Contract 1998 in COLTO Standard Specification for Road and Bridge Works, 1998 are to be deleted and replaced where applicable by references to the Conditions of Contract stated in this clause as detailed in the table hereunder. The context of the reference to the GCC is also noted.

The Contractor shall note that 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 Conditions of Contract specified in this clause and amended in the Contract Document shall apply and the Contractor shall be responsible for interpretation of the equivalent clause.

CHANGES TO REFERENCES BY THE COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND SAICE GCC 2015

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC 2015	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference
1115	1100-2		Definition of GCC		
1204	1200-2	15	Construction programme	5.6	Programme
1204	1200-2		General reference to GCC		
1206	1200-3	14	Setting out of works		
1209(a)	1200-4		General references to GCC		
1209(e)	1200-5	52(2)	Valuation of material brought onto site	6.9	Vesting of Plant and materials
1210	1200-5	54(1)	Certificate of practical completion	5.14.4	Certificate of completion
1212(1)	1200-7	49(2)	CPA on alternative designs	6.8	CPA on alternative designs
1215	1200-9	45(2)	Extension of time for completion due to abnormal rainfall.	5.12	Extension of time for practical completion
1217	1200-10	35	Care of the works	8.2	Care of the works
1303(ii)	1300-1		General reference to GCC		
1303(iii)	1300-1	49	Price adjustment Item 13.01(a)	6.8	Price adjustment Item 13.01(a)
1303(iii)	1300-2	49	Price adjustment Item 13.01(b)	6.8	Price adjustment Item 13.01(b)
1303(iii)	1300-1	53	Variations exceeding 20%		
1303(iii)	1300-2	53	Variations exceeding 20%		
1303	1300-2	12	Payment Item 13.01(c)	5.3	Payment Item 13.01(c)
1303	1300-2	45	Payment Item 13.01(c)	5.12	Payment Item 13.01(c)
1403(c)(ii)	1400-4	40(1)	Variation for rented accommodation	6.3	Variations
1505	1500-3	40(1)	Variation for temporary drainage	6.3	Variations
Item 15.08	1500-8	48	Payment of Provisional Sum	6.6	Provisional sums and prime cost sums
Item 15.09	1500/8	48	Payment of Provisional Sum	6.6	Provisional sums and prime cost sums
Item 15.11	1500-8	48	Payment of Provisional Sum	6.6	Provisional sums and prime cost sums
Note (2)	3100-4	40	Payment for prospecting for materials	6.6	Provisional sums and prime cost sums
3204(b)(iii)	3200-2	40	Payment for oversize material	6.3	Variations
3303(b)	3300-2	2	Engineer's decisions, with reference to materials classification	3	Employer's Agent
Item 44.06	4400-3		General reference to GCC, PC Sums	6.6	Provisional sums and prime cost sums
Item 45.06	4500-3		General reference to GCC, PC Sums	6.6	Provisional sums and prime cost sums
5803(c)	5800-3	40	Variation, for landscaping	6.3	Variations
5805(d)	5800-4	40	Variation, for grassing	6.3	Variations
Item 58.10	5800-10	48	Payment for Extra Work	6.6	Provisional sums and prime cost sums

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COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC 2015	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference
8103(c)	8100-1	40	Variation, for testing material	6.3	Variations
Item 81.02	8100-26		General reference to GCC, Provisional Sums		
Item 81.03	8100-26	22	Clearance of site on completion, with reference to core drilling	5.15.1	Clearance of site on completion, with reference to core drilling

B1155 WORK IN RESTRICTED AREAS

REPLACE THE CONTENTS OF THIS CLAUSE WITH THE FOLLOWING:

"No additional or extra over payment will be made for work in restricted areas except for work near structures as defined in section 6100."

ADD THE FOLLOWING CLAUSES:

"B1156 OTHER DEFINITIONS

The COLTO Standard Specifications for Roads and Bridge Works for State Road Authorities (1998 edition) has been written for all contractors, employers and engineers. Similarly, the works and the site are not defined and the general nature of the entities and elements that collectively constitute construction under a contract are characterized by the use of lower case letters throughout.

These project specifications continue to use lowercase spellings in order to avoid the appearance of the capitalised and non-capitalised words to describe or prescribe the same elements of work required on this project. However, for the purposes of this contract the following definitions shall apply:

Employer's Agent

Employer's Agent (Clause 1.1.1.16 of Conditions of Contract) shall have the same meaning and be synonymous with Engineer/engineer throughout the Contract document.

General Items

General Items (Clause 1.1.1.21 of Conditions of Contract) shall have the same meaning and be synonymous with Preliminary and General items.

Contractor

The Contractor and the contractor is the same persona defined under clause 1.1.1.9 of the General Conditions of Contract, but who will only be formally identified by the completed Form of Acceptance C1.1.2 in this document and which will be bound into the final contract document.

Employer

The Employer and employer is the same persona and is defined in clause 1.1.1.15 in the General Conditions of Contract.

Site

The site is defined in clause 1.1.1.29 of the General Conditions of Contract. It is bound by the limits of construction as shown in the drawings or the title of the project and extends to also include the following:

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- Areas outside the construction zone areas where accommodation of traffic is placed.
- All borrow pits defined in the applications approved by the relevant Department of Minerals and Energy.
- All haul roads constructed by the Contractor for purposes of access.
- Any non-adjacent sites specified in the contract documentation.
- The Contractors and his subcontractors camp sites

Works

The works is described in Part C3 of this document and is as defined in clause 1.1.1.33 of the General Conditions of Contract and prescribed in Part A section A2 of this document.

B1157**LABOUR-OPTIMISING CONSTRUCTION**

The cost-effective employment of as great a portion of labour as is practically and technically feasible to produce the standard of construction required by the Specifications: Therefore, the economic substitution of plant and mechanical equipment in favour of available labour using hand tools, on condition that this method is not more expensive than the conventional construction practices.

B1158**SABS SPECIFICATIONS**

Where reference is made in this specification or the standard specifications to SABS specifications, the latest published national standard shall be applicable. Use:

https://www.sabs.co.za/Standard-Sales/docs/SABS_Catalogue_of_December_2018_abridged.pdf

For the most up-to-date versions of the various standards.

B1159**AGGREGATE SIZE**

Where reference is made in this specification or the standard specifications to aggregate size, nominal aggregate size or maximum aggregate size, the aggregate size as listed shall be replaced with the new corresponding aggregate size as indicated in the following table:

Aggregate size	New aggregate size
26,5	28
19	20
13,2	14
9,5	10
6,7	7
4,75	5
2,36	2
1,18	1

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B1160 **PROCESS CONTROL**

Process control means all testing required to be carried out in order to ensure that the completed permanent works comply with the specifications and drawings. All such testing will be subject to inspection and approval by the Engineer.

B1161 **ACCEPTANCE CONTROL**

Acceptance control means whatever testing the Engineer carries out over and above the process control testing already carried out in order to decide on the acceptability of any work submitted by the Contractor. Such testing will be carried out at the cost of the Employer.

Both the process and acceptance control testing will be carried out by an on-site laboratory for the Engineer.

B1162 **MONTHLY PAYMENTS**

The number of months that has been indicated for items in the Bill of Quantities that are to be billed monthly is the duration of the Construction Period only, unless it is clearly indicated that the number of months includes the duration of the Mobilisation Period."

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B3 SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS**B1202 SERVICES**

ADD THE FOLLOWING:

"The Contractor must be aware of existing services in the area of the Works that will affect his programme of work. It is therefore of the utmost importance for the Contractor to work in close conjunction with the owners or authorities controlling these services to ensure that the services are not disrupted in any way as a result of the Works.

Before work commences, the Contractor shall contact all private owners or public authorities controlling services to allow them to protect, move or relocate a service as required, or to confirm that all such work has been completed.

No payment will be made for inconvenience to the Contractor due to services crossing the Site or any authority working on such services, nor will delays caused by such works be accepted as a basis for claiming an extension of time for completing the Works."

Any cost of repairs, replacement and/or installation of the stations and equipment resulting from the contractor's negligence or unauthorised action shall be to the contractor's account."

B1204 PROGRAMME OF WORK

INSERT THE FOLLOWING BEFORE THE FIRST PARAGRAPH:

"A network-based programme in accordance with the precedence method shall be provided, showing the various activities in such detail as the Engineer may require. The programme shall be updated monthly in accordance with the progress made by the Contractor.

Failure to comply with these requirements entitles the Engineer to use a programme based on his own assumptions to evaluate claims for extension of time for completion of the works, or for additional compensation."

ADD PARAGRAPH (c):

"(c) Programming requirements

The Contractor's initial and all subsequent adjusted programmes to be submitted in terms of Clause 5.6.1 of the Conditions of Contract, shall show and when relevant describe in detail the entire extent of the work to be carried out, as described in or can reasonably be inferred from Part C3: Scope of Works of this document.

In addition to the requirements detailed in Clause 5.6.2 of the Conditions of Contract and with specific reference to Clause 5.6.2.5 thereof the following additional programming information shall be incorporated into the Contractor's initial and all subsequently adjusted programmes as specified in B1204(c)(i) and(ii).

Format

The initial and adjusted programmes shall:

Be in the form of a network programme in accordance with the critical path method; and

Show all linkages between activities that clearly identify sequence, floats and critical path

Indicate the start and end dates and duration of all construction activities and identify the critical path

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Production rates; and

Take full cognizance of all the Contractor's risks and obligations in terms of the Contract.

The Programme and all adjustments thereto shall also be provided to the Engineers in electronic digital format using the MS PROJECT (latest version) software, unless otherwise agreed in writing with the Engineer.

Additional information

The following programming information shall be incorporated into the Contractor's initial programme and all subsequently adjusted programmes:

Time related items, in respect of the following:

Mobilisation Period which includes the time to submit documentation before commencing to carry out the Works – refer to Clauses 1.1.35 and 5.3.1 of C1.2 - Contract Data

Construction Period - refer to Clause 1.1.1.36 of C1.2 - Contract Data

Due Completion date - refer to Clause 1.1.1.14 of C1.2 - Contract Data

All special non-working days defined in the Contract Data.

The expected delays defined in B1215: Extension of time resulting from inclement weather.

The following restricted working condition:

During the Contractor's annual shutdown period between December and January, the Contractor shall maintain two-way traffic within the contract limits.

Meeting the requirements of the environmental management plan

The time needed for preparation and approval of the various mix designs specified in the relevant construction sections of the Scope of Works.

B1205 WORKMANSHIP AND QUALITY CONTROL

INSERT THE FOLLOWING BEFORE THE FIRST PARAGRAPH:

"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, FOURTH AND FIFTH 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."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**B1206 THE SETTING-OUT OF WORK AND PROTECTION OF BEACONS**

REPLACE THE FIRST PARAGRAPH WITH THE FOLLOWING:

"The Contractor shall comply with all legal provisions in regard to surveying and setting out work.

The Engineer has established survey beacons on site from which the Contractor can set out the Works. The position and co-ordinates of the permanent survey beacons have been shown on the Drawings. The Contractor shall be responsible for the protection of all these survey beacons and reference points from handing over of the beacons to the Contractor until completion of the Works.

Detail setting out of the Works from the established beacons shall be the responsibility of the Contractor. Such setting out shall be executed by a registered surveyor. No separate payment shall be made in respect of such setting out, such work being deemed as included in the rates tendered for construction of the Works."

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

DELETE THE FINAL PARAGRAPH AND REPLACE WITH THE FOLLOWING:

"All sign boards erected in accordance with the Drawings or approved advertisements for the Contractor's establishment shall be removed at the same time as the Contractor's disestablishment. Payment under subitem 13.01 for the final instalment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed."

B1209 PAYMENT**(b) Rates to be inclusive**

IN THE THIRD LINE OF THE FIRST PARAGRAPH, INSERT "together with the payment of VAT as a separate item, "AFTER THE WORD "quantities,".

ADD THE FOLLOWING SUBCLAUSES:

"(g) Payment certificates

With reference to Clause 6.10.1 of the General Conditions of Contract, the Engineer's Certificate will only be issued after he has received a draft certificate prepared by the Contractor at his own expense in the form prescribed by the Engineer. The cost of duplicating and delivering copies of the certificate to the Contractor, the Engineer and the Employer shall be borne by the Contractor. The Engineer and the Employer require a total of five sets of A4-sized paper copies.

Trade names

Where materials are specified under trade names, tenders must be based on those specified materials. Alternative materials may be submitted as alternative tenders and the Engineer may, after receipt of tenders, approve the use of equivalent materials.

Work in confined areas

Except where provided for in the specifications and the Bill of Quantities, no extra payment shall be made nor shall any claim for additional payment be considered for construction in restricted or confined areas. The omission of standard pay items from the Bill of Quantities shall be taken to be deliberate and any additional costs incurred shall be included in the tendered rates."

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B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

ADD THE FOLLOWING PARAGRAPH:

"In addition to the listed specified items of work and regardless of the degree of beneficial occupation by the Employer, no sections of the Works, individually or collectively, shall be considered for practical completion unless the following criteria have been met also:

In the case of partial completion, the estimated cost to complete the outstanding work is less than 2% of the estimated cost to construct the whole section or sections.

In the case of the whole Works, the estimated cost to complete the outstanding work is less than 2% of the tendered value of work plus the cost of any variation or extra work orders, but excluding CPA and VAT.

The written list of outstanding items of work can be completed within 28 days of the list having been accepted in writing by the Contractor."

B1214 CONTRACTOR'S ACTIVITIES IN RESPECT OF PROPERTY OUTSIDE THE ROAD RESERVE AND OF SERVICES MOVED, DAMAGED OR ALTERED

ADD THE FOLLOWING TO THE LAST PARAGRAPH OF SUBCLAUSE (d):

"These written statements shall be handed to the Engineer before the final certificate will be issued. Failing to obtain these written statements from all landowners and authorities concerned, the period of maintenance will be extended including all conditions related to such an extension, until such time that all these statements are obtained.

The obtaining of any such written statements will not relieve the Contractor of the execution of any of his obligations to the satisfaction of the landowner or authority concerned, and to the approval of the Engineer."

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

ADD THE FOLLOWING:

"Extension of time for completion in terms of Clause 5.12 of the General Conditions of Contract in respect of abnormal rainfall shall be determined in terms of Method (ii) (The Critical Path Method) as described under Clause 1215 of the Standard Specifications. This formula does not take account of flood damage that could cause further or concurrent delays.

The Critical Path Method

The critical path method is specified in the project specifications for determining extension of time resulting from abnormal rainfall and it shall be applied as follows:

A delay caused by inclement weather conditions will be regarded as a delay only if, in the opinion of the Engineer all progress on the item/s of work on the critical path of the working programme of the Contractor has been brought to a halt. Delays on working days only (based on a five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected delay of "n" working days caused by normal rainy weather, for which he will not receive any extension of time. **The value of "n" shall be given in the project specifications by the Engineer.**

Extension of time during working days will be granted to the degree to which actual delays as defined above exceed the number of "n" working days as mentioned in the project specifications.

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The Value of "n" for this is indicated in the Table Below (derived from the average number of days when rainfall of 10 mm or more falls during normal rainy season using records from Rainfall Station **Hoedspruit weather station (0677802BX)** for the period **2006 to 2016** are reproduced in the table hereunder.

<p><i>Table 1 – RAINFALL RECORDS FOR PERIOD: 2006 – 2016</i></p> <p><i>RAINFALL STATION: Hoedspruit Lat: 23.8570 Lon: 29.451 Height 1226m</i></p> <p><i>Average No of Days with Rainfall exceeding 10mm:9.8 days/year</i></p> <p><i>Average Rainfall: 488.6mm/year station no: 0677802BX</i></p>												
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
JAN	65.9	39.3	65.9	11	3.4	2.1	1.3	0.7	0	0	38	1/18/2013
FEB	47.3	49.7	47.3	11	1.6	0.9	1.1	0.6	0	0	49	2/26/2006
MAR	58.4	33.2	58.4	11	3	1.3	1.1	0.7	0.1	0	51.5	3/27/2006
APR	43.3	46.6	43.3	11	1.5	1	0.7	0.5	0.1	0	68	4/4/2011
MAY	10.4	14	10.4	11	0.5	0.4	0.3	0.1	0	0	29.2	5/8/2009
JUN	1.7	3.6	1.7	11	0.3	0	0.1	0	0	0	12	6/10/2009
JUL	2.4	4.3	2.4	11	0.3	0.1	0.1	0	0	0	12.1	7/4/2007
AUG	2.3	5.6	2.3	11	0.2	0	0.1	0	0	00	19.2	8/15/2011
SEP	6.6	8.2	6.6	11	0.4	0.4	0.1	0.1	0	0	22.5	9/4/2015
OCT	48.1	29.5	48.1	11	1.5	0.7	1.4	0.6	0	0	38.2	10/29/2009
NOV	97.7	40.5	97.7	11	3.1	2	1.3	1.5	0.2	0	65.5	11/12/2008
DEC	104.6	56.3	104.6	11	3.8	1	1.7	1.9	0.1	0	55	12/16/2014
YR	488.6		67.9		19.5	9.8	9.2	6.8	0.5	0	488.6	

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B1222 USE OF EXPLOSIVES

REPLACE PARAGRAPH (g) WITH THE FOLLOWING:

"(g) The Contractor shall, seven (7) days before each blasting operation is carried out, advise the Engineer thereof in writing. Any such blasting operation shall be confirmed with the Engineer twenty-four (24) hours prior to execution. The Contractor shall make all the necessary arrangements to keep the public and the provincial traffic authorities fully informed with regard to the closures of the road for blasting purposes."

ADD THE FOLLOWING PARAGRAPH:

"(h) Where blasting needs to be carried out within the road reserve of the existing road, it shall only be allowed between 10:00 and 14:00. The road may not be closed for a period longer than thirty (30) minutes during which time all blasting shall be carried out, debris removed from the road surface and the road made safe and passable for traffic."

B1224 THE HANDING OVER OF THE ROAD RESERVE

ADD THE FOLLOWING PARAGRAPH:

"The Contractor shall carry out any maintenance work within the road reserve that the Engineer may require during the time for completion of this Contract. Such maintenance shall typically comprise the routine clearing of litter, the clearing and repair of drainage, repair of guardrails and any structural damage caused by traffic during the contract period."

B1228 LEGAL PROVISIONS

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993:Construction Regulations, 2014 (the regulations) as promulgated in Government Gazette No 25207 and Regulation Gazette No 37305 of 7 February 2014. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Bill of Quantities and Drawings, as well as in the Employers' health and safety specifications (regulation 5(1)) of the Construction Regulations 2014, which are bound in the Contract document).

The Contractor shall in terms of regulation 7(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

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

A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

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B1229 SABS CEMENT SPECIFICATIONS

ADD THE FOLLOWING TO THIS SUBCLAUSE:

"Where reference is made in this Specification or the Standard Specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SANS 50197-1 Cement composition, specifications and conformity criteria Part 1: Common cements."

ADD THE FOLLOWING CLAUSES:

"B1230 REPORTING OF ACCIDENTS

The Contractor shall report every accident which occurs on the road, within the extent of the Works, to the Engineer, within twenty-four (24) hours of such accident occurring, irrespective of whether such accident has a bearing on damage to the Works or to persons, property or things. The report must be in writing and must contain full particulars of the accident. Photographs of each accident shall also be included in the report. The Engineer has the right to conduct any or all enquiries, either on the Site or elsewhere, as to the causes and consequences of any such accident. The Contractor shall also keep a comprehensive record of all accidents which occur on the road and shall make such records available to the Engineer on demand.

B1231 TRAINING

Structured training shall be provided to temporary personnel involved in the Contract in accordance with the provisions set out in Part D. The Contractor's selection of the candidates shall be approved by the Project Liaison Committee and the Engineer, subject to the required entrance levels. All training courses must be offered through approved accredited training organisations.

The Contractor shall provide the following for the training:

- A venue with sufficient lighting, electric power points and furniture;
- All necessary stationery, consumables and study material;
- Transport to and from the training venue if the training is not delivered on Site;
- Wages for candidates attending Engineering (technical) skills training during working hours;
- Payment to approved training organisations for the provision of training.

NB: Only technical skills and entrepreneurial training may take place during normal working hours. Generic training may only take place after hours. All training courses shall commence within one month of handing over the Site and be complete before the end of the Contract Period."

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B1232 MEASUREMENT AND PAYMENT**Item****Unit****B12.01 Relocation and protection of existing services:**

Utility services:

Relocation of services and payments to service
owners Provisional SumHandling cost and profit in respect of
subitem B12.04(a)(i) percentage (%)

The provisional sum item shall be paid in accordance with the provisions of the General Conditions of Contract subclause 6.6.1 as amended by the variations to the General Conditions of Contract. The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service.

Item**Unit****B12.05 Excavation by hand to determine the position existing services: cubic metre (m3)**

The unit of measurement shall be the cubic metre of material removed by hand to expose the existing services.

The tendered rate shall include full compensation for all labour and tools required for removing the material.

Item**Unit****B12.06 CETA Accredited Training**

Technical Skills.....Prov Sum
 Generic and Management Skills.....Prov Sum
 Training Venue.....Lump Sum
 Remuneration of workers undergoing technical skills training - Wages and Salaries of Local labour employed by the contractor and subcontractor in respect of training periods for on-site training by contractor during which no productive work is executed... Provisional (P) sum

Contractors charge to allow handling and profit in respect of subitem 12.06((a), (b) and (d))
 percentage (%)

The prime cost item shall be paid in accordance with the provisions of the General Conditions of Contract sub-clause 6.6.2 as amended by Particular Conditions of Contract. The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service.

Payment of 50% of the amount quoted shall be kept in retention until such time as training certificates have been duly issued by the service provider.

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Item	Unit
B12.07 Remuneration of Community Liaison Officer and PLC	
Community Liaison Officer	provisional (P) sum
Project Co-ordinating Committee	provisional(P) sum
Handling cost and profit in respect of subitem B12.07(a and b)	percentage (%)

The prime cost item shall be paid in accordance with the provisions of the General Conditions of Contract sub-clause 6.6.2 as amended by Particular Conditions of Contract. The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service.

Item	Unit
B12.10 Compensation to land owners.	Prov Sum
(a) Cost of compensation to land owners	Prov Sum
(b) Handling costs and profit in respect off sub-clause B12.10 a)	%

Expenditure of the above item shall be made in accordance with the general condition of contract.

The tendered % is a % of the actual amount spent under sub-items B12.10 a), which shall include full compensation for the handling costs and profit of the contractor.

Item	Unit
B12.11 Remuneration of student training	
(a) Student training	provisional sum
(b) Handling costs and profit in respect of sub-item B12.11 (a)	percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under the sub-item B12.09 (a), which shall include full compensation for the handling costs of the contractor, and the profit in connection with providing student training."

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Item	Unit
B12.12 Contractor's initial obligations in respect of the Occupational Health And Safety act (OHS), Covid-19 Regulations and Construction regulations 2014	Lump Sum

The full amount will be paid in one instalment only once: -

The contractor has notified the Provincial Director of the Department of Labour in writing of the project and to obtain construction permit.

The contractor has made the required initial appointments of employees and sub-contractors.

The client has approved the contractor's Health and Safety Plan.

Compliance with the Covid-19 Regulations

The contractor has set up his Health and Safety File.

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations, 2014) at all times for the full duration of the Contract, as described in clause B1228 of the project specifications. The successful Tenderer shall provide the Engineer with a complete breakdown of this tendered sum.

This sum will be paid to the Contractor in equal monthly amounts subject to proper and/or substantial compliance.

B12.13 Submission of the Health and Safety File.....	Lump Sum
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The tendered sum shall include full compensation to the Contractor for compliance with all the requirements with regard to the Health and Safety File and Approval.

B12.14 Contractor's initial obligations in respect of the EMP.....	Lump Sum
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The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the EMP

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B4 SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**B1301 GENERAL REQUIREMENTS****(c) Legal and contractual requirements and responsibility to the public**

ADD THE FOLLOWING PARAGRAPH:

"The Contractor shall comply with all statutory and contractual requirements of the Environmental Management Programme, as included in the Project Document.

Separate items will be scheduled under payment item B13.01 (The contractor's general obligations) to cover the following components of the Contractor's preliminary and general costs, Contractor's General items (Clause 1.1.1.21 of the Conditions of Contract):

- (i) fixed,
- (ii) value-related and
- (iii) time-related in respect of the

Mobilisation Period:

Shall be the number of days as specified in Clause 1.1.1.35 in the Contract Data.

The Contractor shall note that on this Contract all costs associated with this period shall be deemed to be included in other rates.

Construction Period:

Shall be the number of days within which the Contractor has to complete the construction of the Works as specified in Clause 1.1.1.36 in the Contract Data, and as adjusted by such extensions of time or acceleration as may be allowed in terms of the Contract."

ADD THE FOLLOWING NEW SUBCLAUSE:

"(d) Contractor's ablution facilities

The Contractor shall, at each construction section, provide sufficient portable chemical latrine units. Furthermore, the Contractor shall also provide a portable chemical latrine unit at each temporary traffic control facility. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the Engineer. 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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B1301 PAYMENT**Item****B13.01 The Contractor's general obligations:**

DELETE SUBITEM(c) AND REPLACE WITH THE FOLLOWING:

- "(c) Time related obligations:
(i) Mobilisation Period days
(ii) Construction Period month"

INSERT THE FOLLOWING PARAGRAPH AFTER THE FOURTH PARAGRAPH:

"Should the combined total tendered for subitems (a), (b), and (c) exceed 15% of the Tender Sum (excluding CPA, contingencies and VAT), the tenderer shall state his reasons in writing for tendering in this manner. The tenderer's attention is drawn to Form B1: Contractor's establishment on Site (bound in this Volume) to be completed by the tenderer."

After the paragraph starting with "Should the combined" Insert the following:

"In the 11th paragraph, the following amendments apply:

Delete "from the date on which the contractor has received the letter of acceptance in terms of clause 12 of the general conditions of contract" *and replace with* "for subitem 13.01(c)(i) Mobilisation Period from the Commencement Date in terms of Clause 1.1.1.5 of the General Conditions of Contract, until the end of the Mobilisation Period and for subitem 13.01(c)(ii) Construction Period from the end of the Mobilisation Period.

Payment for the Mobilisation Period shall only be made if such item B13.01(c)(i) is included in the Bill of Quantities".

DELETE THE SEVENTEENTH PARAGRAPH COMMENCING WITH"The tendered rate per month for subitem B13.01(c) ..." *AND REPLACE WITH:*

"The tendered rate per month for subitem B13.01(c) represents full compensation for that part of the Contractor's general obligations which is mainly a function of construction time. The tendered sum 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 any extension thereof as provided in Clause 5.12 of the General Conditions of Contract, provided that –

Should the works be certified as having been completed before the Due Completion Date, the Contractor will then be entitled to payments in regard to the unexpired period up to the approved Due Completion Date."

ADD THE FOLLOWING AT THE END OF THIS PAY ITEM:

"The amount payable to the Contractor for time-related costs arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of Clause 5.12.3 of the General Conditions of Contract, shall be calculated by taking account of only payment items for which the unit of measurement is 'month'. All pay items for which the unit of measurement is 'month' shall be deemed to be based upon an average of 30 days per month."

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B13.01 Contractor's time related obligation in respect of the month Occupational Health and Safety Act and Construction Regulations.

Payment of the rate per month shall include full compensation for all the contractor's obligation relevant to the Occupational Health and Safety Act No. 85 and Amendment Act No.181 of 1993, and OHSA 1993 Construction Regulations 2003 issued on the 18 July 2003 by the Department of Labour.

The rate must also include a full-time Traffic Safety Officer who will be full-time on site for the duration of the contract.

B13.01 Contractor's time related obligation in respect of the month Environmental Management Plan.

Payment of the rate per month shall include full compensation for all the contractor's obligations relevant to EMP.

The rate must also include a full-time Environmental Officer who will be full-time on site for the duration of the contract.

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B5 SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL**B1402 OFFICES AND LABORATORIES****(a) General**

ADD THE FOLLOWING AT THE END OF THE FIRST PARAGRAPH:

"Burglar-proofing shall comply with the requirements of CKS 338."

(b) Offices

ADD THE FOLLOWING SUBSUBCLAUSES:

"(xvi) The electric refrigerator shall have a capacity of at least 200 litres.

Steel plan cabinets shall be able to accommodate one hundred and fifty A0-size drawings hanging vertically from approved holders

The electric refrigerator shall have a capacity of at least 200 litres.

Cell phones shall be supplied to the Engineer's site staff for the duration of the Contract. The Prime Cost Sum shall also include for the cost of all telephone calls in connection with contract administration."

(c) Laboratories

IN THE SECOND LINE OF THE SECOND PARAGRAPH, REPLACE "drawings" WITH "figure included in the project document or on the Drawings".

ADD THE FOLLOWING TO SUBSUBCLAUSE (xiv):

"The lengths of the baths are governed by the heating and water-circulation apparatus and the number of cubes to be stored, and must be approved by the Engineer before the baths are constructed."

ADD THE FOLLOWING TO SUBSUBCLAUSE (xv):

"The freezer compartment of the refrigerator shall have a capacity of approximately 50% of the volume of the refrigerator."

ADD THE FOLLOWING SUBCLAUSE:

"(i) Computers and printers

When instructed by the Engineer, the Contractor shall provide approved new computer equipment, including software and printers for use by the Engineer's site personnel. The type of equipment and software shall be as instructed by the Engineer and payment for equipment and maintenance shall be made through item B14.03.

All equipment provided shall be kept fully serviceable at all times by the Contractor. The Contractor shall repair/replace any defective equipment within 48 hours after notification by the Engineer's staff. The Contractor shall also be responsible to provide all paper and ink cartridges required by the Engineer.

At the end of the Contract, the equipment and software shall revert back to the Contractor."

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B1403 HOUSING**(c) Rented accommodation**

REPLACE THE FULL STOP AT THE END OF THE FIRST SENTENCE OF SUBSUBCLAUSE (c)(ii) WITH A COMMA AND ADD" and for all services connected with such accommodation."

B1408 SERVICES**Water, electricity and gas***ADD THE FOLLOWING:*

"The power supply shall be regulated by a suitable voltage regulator in order to maintain a constant current and voltage level at all times to prevent damage to the office and laboratory equipment and related machinery during power surges. Payment for the voltage regulator shall be deemed to be included in the rates tendered for the supply of power. In the event of damage to the office and laboratory equipment and related machinery because of a faulty voltage regulator, the Contractor shall be liable for payment of all repair or replacement costs of such damaged items."

Maintenance*REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:*

"The Contractor shall supply all labour, equipment and materials required for keeping the offices, laboratories, ablution units, car-ports at the offices and laboratories, and the housing for labourers in a neat and clean condition, and shall immediately undertake repairs requested by the Engineer to the offices, laboratories, ablution units, car-ports, rented houses and the housing for labourers. The Contractor is not responsible for keeping rented houses in a clean and neat condition, nor for tending to or caring for the gardens."

B1406 MEASUREMENT AND PAYMENT**Item****Unit**

The variation items in the BOQ are self-explanatory.

Measurement and payment in respect of the provisional and prime sums items shall be made in accordance with the provision of the general conditions of contract.

The tendered percentages are percentages of the amount actual spent, which shall include full compensation for handling costs of the contractor and profit in connection with the payment of the cost of services relating to the use by the engineer's site staff of the services.

Add the following item:

Item**Unit****B14.01 Provision of offices, accommodation and laboratory**

- a) Office accommodation for the Resident Engineer staff, including all furniture, services and carports.

Lump-Sum

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80m² laboratory including all furniture and fittings, installation for soils and asphalt testing and services, excluding apparatus.

Lump-Sum

c) Open concrete working floors, 100mm thick including roof over. m²

(e) ablution units and kitchen area (20 m²), including fittings, services and utensils. m²

The tendered lump sum shall be in full compensation for supplying and erecting the accommodation, fittings and furniture as specifications and shown on the drawings, and for the proper maintenance and the subsequent removal thereof from the site on the completion of works.

Item	
.....	
.....	
.....	Unit

B14.03 Office and laboratory fittings, installations and equipment

b) Prov Sum items Prov.Sum

Add the following sub-items:

The provision of telephone services, cellular services contracts including cell phones for all supervisory staff. **Prov.Sum**

(ii) The provision of 3G data services, mobile contracts including 3G modems **Prov.Sum**

The provision of computer hardware and software facilities for the supervisory staff. **Prov.Sum.**

(iv) The provision of printing, copying, scanning and digital cameras facilities for the supervisory staff. **Prov.Sum**

(v) Handling cost and profit in respect of subitem 14.03(b)..... **Percentage (%)**

The tendered percentage is a percentage of the amount actually spent under sub-item B14.03 (b).

Expenditure under this item shall be made in accordance with the General Conditions of Contract.

The tendered percentage is a percentage of the amount actually spent under subitem B14.03(b), which shall include full compensation for the handling costs of the Contractor, and the profit in connection with providing the specified equipment."

B14.07 Rented hotel and other accommodation, including offices

a): Provisional sum for providing rented housing, hotel or other accommodation, fully furnished and including services. **Prov Sum.**

b) Handling costs and profit in respect of sub-item B14.07(a) Percentage
(%)

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Expenditure under this item shall be made in accordance with the general condition of contract.

The tendered percentage is a percentage of the actually spent under sub-item 14.07(a), which shall include full compensation for the handling costs of the contractor and the profit in connection with providing the rented accommodations.

Item**Unit****B14.11 Provision and erection of security fencing (including gate) (m)**

The unit of measurement shall be in metre of security fence supplied and erected as indicated in the drawings and/or ordered by the engineer (B14.02) above. The tendered rate shall include full compensation for procuring and furnishing of all material, including two vehicle gate, labour and equipment required to erect the specified security fence, maintain it for the duration of the contract and eventually removal at the completion of the contract.

General: Method of payment**Add the following:**

"The tendered rates under this section of BOQ shall also include full compensation for dismantling and removal from site of all offices, laboratories and other facilities provided for the engineers supervisory staff at the completion of contract."

B6 SECTION 1500: ACCOMMODATION OF TRAFFIC**B1501 SCOPE*****ADD THE FOLLOWING:***

"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**Safety*****ADD THE FOLLOWING:***

"Should the Contractor park any of his vehicles within the road reserve at night, it shall be done in such a way that the vehicle is more than 6 m away from the shoulder of the road and it shall be properly illuminated and signposted to ensure safe passing by motorists."

Providing temporary deviations***ADD THE FOLLOWING PARAGRAPH:***

"The Contractor shall keep the provincial traffic police and the Engineer fully informed of changes in the normal traffic flow and obtain their approval for these changes."

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."

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Traffic Safety Officer

ADD THE FOLLOWING AFTER THE SECOND PARAGRAPH:

"The Contractor shall submit a Curriculum Vitae of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall make himself available to discuss road safety and traffic accommodation matters whenever required by the Engineer."

REPLACE SUBSUBCLAUSES (ii) AND (iii) 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 to identifiable permanent features located along the site of the Works.

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

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

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

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

The Traffic Safety Officer shall be equipped with a cellular telephone and shall have a vehicle and three labourers at his disposal 24 hours a day and he shall be directly answerable to the Contractor's Site Agent. The traffic safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel in accordance with the requirements of Part 13 of Volume 2 of the South African Road Traffic Signs Manual. 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 the limits of the Contract. The provision of the road safety vehicle, driver, three labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the Contractor's establishment on Site."

ADD THE FOLLOWING SUBSUBCLAUSES:

"(ix) Ensure that all obstructions related to the Contractor's activities be removed before nightfall where applicable and instructed by the Engineer and that the roads are safe for night traffic.

The Traffic Safety Officer shall also be responsible for arranging 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 and for the erection and maintenance of all traffic signs necessary for the accommodation of traffic."

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ADD THE FOLLOWING SUBCLAUSES:

"(j) 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 public traffic, 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 deduct penalties as follows:

A fixed penalty of **R5 000,00** per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the Standard Specifications and/or the Project Specifications.

In addition, a time-related penalty of **R500,00** per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

Public traffic

The travelling public shall have right of way on public roads. The Contractor shall arrange his activities so as to bring about the least possible disruption to the traffic on the roads on which he works.

The closure of one lane of the road shall only be done:

on written instruction of the Engineer,
after approval of a specific accommodation of traffic detail,
subject to all the road signs and markings being implemented and
subject to such other conditions as the Engineer would reasonably
require to ensure the safety of the travelling public.

The closure of more than one lane of traffic will only be considered in exceptional cases. The Engineer shall determine the maximum period for which such a closure may be allowed. It is also an express provision that such an eventuality will be controlled by the traffic authority concerned. Should the traffic authority not be available for such control, the Contractor shall control such an event, provided that he has proven that he has exercised his best endeavours and taken all actions timeously to involve the traffic authority to control the traffic. No additional payment will be made for such control by the Contractor and the rates tendered for Section 1500 will be deemed to include full compensation for all costs pertaining to such control.

Failure or refusal on the part of the Contractor to take the necessary steps to ensure the safety and convenience of the public in accordance with these specifications or as required by the Engineer or the traffic authorities shall be sufficient cause for the closing down of all work under this Contract until all provisions prescribed have been complied with to the satisfaction of the Engineer.

Handing over the Site

The road reserves of all the roads to be constructed under this Contract will be handed over to the Contractor at commencement of the Contract. The Contractor will be permitted to work on any structure or service provided that a free and safe flow of traffic is maintained at all times and that the requirements of the Specifications are

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complied with.

The Contractor's programme for the accommodation of traffic and any proposed deviation from the approved programme shall be subject to the Engineer's approval."

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

"All temporary road signs, devices, sequences, layouts and spacings shall comply with the requirements set out in the National Road Traffic Act, 1996 (Act No 93 of 1996), the National Road Traffic Regulations, 2000 of the relevant authorities and on the Drawings or as instructed by the Engineer.

The Contractor shall indemnify the Employer against all proceedings, claims, actions, damages and costs which may arise from or be related to the absence or improper functioning or placement of road traffic signs, barricades, traffic-control facilities, channelization devices and warning devices.

REPLACE THE THIRD PARAGRAPH WITH THE FOLLOWING:

"The type of construction, spacing and placement of traffic-control devices shall be in accordance with Volume 2 of The South African Road Traffic Signs Manual (in particular Part 13), these special provisions and the Drawings. The recommended arrangements of the traffic-control devices illustrated in Part 13 of the above Manual and/or Drawings shall not be departed from without prior approval of the Engineer. The arrangements expected to be most commonly used on 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."

Traffic-control devices

REPLACE THE SECOND SENTENCE OF THE SECOND PARAGRAPH WITH THE FOLLOWING:

"Two-way communication systems in good working condition shall be available at both ends of those sections of the works where the road is barricaded and only one-way traffic is accommodated. A standby communication system set in good working order shall also be made available."

ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"The Contractor shall provide portable shelters to protect his personnel who regulate the STOP and GO-RY signs against the elements. The personnel regulating the traffic shall at all times wear reflective safety jackets."

Road signs and barricades

ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"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, or lost, or stolen.

All temporary road signs shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted ballasting of the sign supports shall be

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by using 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 for in the tendered rates for the various types of temporary road signs.

The traffic-control devices, temporary signs and devices required in the Contract are those designated in Part 13 of Volume 2 of the South African Road Traffic Signs Manual.

No work may proceed on any section where accommodation of traffic is required until such time as the relevant requirements with regards to signposting are met and written approval of the Engineer is obtained. The Contractor shall keep sufficient surplus signs, delineators and barricades on the site to allow for the immediate replacement of damaged or missing items, in any case, within three hours of instructions having been given by the Engineer. Delineators shall be of the flexible plastic reversible variety and not of the rigid metal variety.

Should the Contractor fail to respond to an instruction to re-erect a road sign within three hours or fail to comply to the requirements, the work on that section will be suspended without any compensation to the Contractor."

Channelization devices and barricades

ADD THE FOLLOWING PARAGRAPHS:

"Drums shall not be used as channelization devices.

TW 401 and TW 402 delineators shall comply with the following requirements:

They shall be manufactured from a flexible material and shall comply with SANS 1555:2011. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilized by means of sandbags when used on the road.

The blade shall be retro-reflectorised, with Class I yellow sheeting on the side facing oncoming traffic.

It shall be nominally 1 000 mm high x 250 mm wide and the bottom edge of the delineator shall not be more than 200 mm above the road surface.

(iv) The delineators shall be subject to the approval of the Engineer.

The maximum spacing between centres of delineators shall be as shown on the Drawings or as directed by the Engineer.

Barriers

ADD THE FOLLOWING:

"Guardrails mounted on steel drums shall not be used as barriers."

Warning devices

ADD THE FOLLOWING TO THE FIRST PARAGRAPH: "The

flashing lights shall have a minimum intensity of 55 W."

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE SECOND PARAGRAPH:

"The warning boards shall be at least 1,5 m above ground level."

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ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"All construction vehicles and Plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. Clearance permits for all vehicles and Plant shall be obtained from the Engineer before being allowed onto the Site.

Rotating lights shall have an amber lens with a minimum height of 200 mm and shall be mounted in order to be clearly 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 LDVs and cars operating on Site shall also be equipped with rotating amber flashing lights which shall be placed so as to be clearly visible and operated continuously while the vehicles are manoeuvring in or out of traffic or are travelling on or parked alongside roads open to public traffic.

The Contractor shall provide the Engineer with four (4) rotating amber-coloured flashing lights. These lights shall be at least 200 mm high, shall have magnetic bases and must be equipped with fittings to draw power from a cigarette lighter point in a vehicle. No separate payment will be made for the supply and maintenance of these flashing lights and full compensation therefor shall be included in the rates tendered for in Section 1500.

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 supply 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."

*ADD THE FOLLOWING SUBCLAUSES:***"(g) Safety jackets**

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 replaced immediately by the Contractor.

The Engineer, his personnel and visitors shall wear safety jackets at all times when they move about the Site. The Contractor shall provide the Engineer with safety jackets. The safety jackets shall be orange in colour and shall be submitted for the Engineer's approval before they are purchased. Payment for the safety jackets will be made under item B15.14(b).

(h) Other signs or facilities

The Engineer may instruct the Contractor to provide any other road sign, reflective tape, etc not measured in standard pay items. The road signs shall conform to the requirements of Part 13 of Volume 2 of the South African Road Traffic Signs Manual, or specification provided by the Engineer.

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The Contractor shall inform the general public of the intended road works, construction period and accommodation of traffic proposal through press releases in local and provincial newspapers."

B1504 WIDTH AND LENGTH OF TEMPORARY DIVERSIONS

REPLACE "10 m" IN THE FIRST SENTENCE OF THE FIRST PARAGRAPH WITH "8 m."

B1505 TEMPORARY DRAINAGE WORKS

ADD THE FOLLOWING TO THE LAST PARAGRAPH:

"The construction of temporary culverts shall be in accordance with Section 2200. Temporary culverts no longer required shall be removed as directed by the Engineer. Excavations shall be backfilled with suitable granular material and compacted to the densities specified by the Engineer."

B1507 GRAVELLING OF TEMPORARY DEVIATIONS OR OF EXISTING ROADS USED AS TEMPORARY DEVIATIONS

ADD THE FOLLOWING TO THE SECOND PARAGRAPH:

"The gravel material laid on existing roads used as diversions shall comply with the following:

Maximum size	: 37,5 mm
Oversize index (Io)	: 0 (% retained on 37,5 mm sieve)
Shrinkage products (Sp)	: 100 - 240 (linear shrinkage x % passing 0,425 mm sieve)
Grading coefficient (Gc)	: 16 - 34 [(% passing 26,5 mm - % passing 2,0 mm) x % passing 4,75 mm/100]
CBR	: 15 at 93% of modified AASHTO density."

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ADD THE FOLLOWING CLAUSES:

"B1518 RETRO-REFLECTIVE MATERIAL"

Retro-reflective material for temporary signs shall comply with the requirements of SANS 1519-2:2000. Tests shall be carried out with a field retro-reflectometer and the testing procedure and classification are described in clause B8118.

B1517 MEASUREMENT AND PAYMENT**Item****B15.01 Accommodating traffic and maintaining temporary deviations**

ADD THE FOLLOWING AFTER THE SECOND PARAGRAPH:

"The accommodation of traffic and the maintenance of deviations shall be measured once only along the centre line of the road, irrespective of the type of work to be executed or the number of times necessary to accommodate traffic over any particular part of the road.

The limits for any particular section of road over which traffic has to be accommodated and deviations have to be maintained shall be the distance measured between the limits of construction of the particular section of road under consideration. Only the net distance of the road shall be measured and overlapping distance during staged rehabilitation shall not be measured.

The tendered rate shall also include the watering of the temporary deviations twice a day. Any additional watering of the temporary deviations, as instructed by the Engineer shall be paid under payment item 15.06.

The tendered rate shall also include the blading of temporary deviations once a week. Any additional balding of the temporary deviations, as instructed by the Engineer shall be paid under payment item 15.07(a)."

B7 SECTION B1600: OVERHAUL**B1602 DEFINITIONS****Overhaul**

DELETE THE SUBCLAUSE AND REPLACE WITH:

"Payment shall only be made for material hauled in excess of 1,0 km. Overhaul shall be measured as the product of the volume of material hauled and the overhaul distance."

Free-haul distance

REPLACE THE LAST SENTENCE WITH:

"This distance shall be 1,0 km in the case of all overhaul materials and this specification shall be deemed to have replaced the 'free-haul' distance in all other sections of the standard specifications."

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B1603 MEASUREMENT AND PAYMENT

AMEND THE DESCRIPTION OF PAYMENT ITEM 16.02 AS FOLLOWS:

Item	Unit
B16.02 Overhaul on material hauled in excess of 1,0 km	cubic metre-kilometre (m³-km)"

DELETE THE FIRST PARAGRAPH OF THE FIRST SET OF NOTES AND REPLACE IT WITH THE FOLLOWING:

"Only ordinary overhaul for haul in excess of 1,0 km will apply to all type of fill and layerwork materials. No restricted overhaul will be applicable on this Contract."

B8 SECTION B1700: CLEARING AND GRUBBING

B1702 DESCRIPTION OF WORK

(a) Clearing

ADD "of the roadway and for temporary deviations/roads "AFTER "Clearing "IN THE FIRST PARAGRAPH.

(b) Grubbing

ADD "and along temporary deviations/roads, "AFTER "In the roadway "IN THE FIRST PARAGRAPH.

B1703 EXECUTION OF WORK

(a) Areas to be cleared and grubbed

REPLACE THE FIRST SENTENCE OF THE FIRST PARAGRAPH WITH THE FOLLOWING:

"The portions of the road reserve falling within the limits of the road prism, along temporary deviations/roads and certain borrow areas, shall be cleared and grubbed using conventional methods."

DELETE"normally"IN THE SECOND LINE OF THE SECOND PARAGRAPH.

(c) Disposal of material

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

"The Contractor shall dispose of all trees, tree stumps, rubble, undesirable material removed from hydraulic structures, refuse, and all non-combustible rubbish at approved dumping sites provided by the Contractor. The material disposed of shall be covered up with soil or gravel. No extra-over or additional payment will be made for disposing of and covering up material and full compensation for this work will be deemed to be included in the rate tendered for item B17.01."

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Cleaning out of hydraulic structures*ADD THE FOLLOWING:*

"The cleaning of hydraulic structures shall involve the removal of all undesirable materials such as earth, sand, gravel, stones and mud until the structures are completely clean, and the debris is disposed of at approved dumping sites provided by the Contractor."

B1704 MEASUREMENT AND PAYMENT

Item	Unit
B17.01 Clearing and grubbing	hectare (ha)

REPLACE THE LAST PARAGRAPH WITH THE FOLLOWING:

"The tendered rates shall include full compensation for all work necessary for the clearing and grubbing of the surface, the demolishing and disposal of structures, shelters, dwellings and out-buildings, the removal of all vegetation, shrubs, trees and tree stumps (except large trees and stumps as defined in item 17.02), cutting of branches, backfilling of cavities, the removal, transporting (including all haul) and disposal of material at approved dumping sites provided by the Contractor, and all additional costs incurred to clear and grub the surfaces to the Engineer's satisfaction.

Clearing and grubbing of borrow areas will only be measured and paid for in the cases specified in Clause 3104(b)."

ADD THE FOLLOWING TO THE MEASUREMENT AND PAYMENT PARAGRAPHS:

"Clearing and grubbing for the construction of camp sites shall not be measured separately. Payment shall be regarded as included in the rates tendered for the applicable items under item B13.01."

Item	Unit
B17.07 Removal of topsoil and unsuitable material and temporary Stock-piling thereof in:	

Topsoil in windrows alongside the work area	cubic metre (m ³)
Topsoil in windrows on the edges of borrow-pits or spoil areas	cubic metre (m ³)

The unit of measurement for items (a) to (b) 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 unit of measurement for item (b) shall be the cubic metre of material placed in stockpile at the borrow pit.

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 not normally be classed as 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

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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."

B9 SECTION B1800: DAYWORKS**B1801 SCOPE**

This section covers the listing of daywork items in accordance with the General Conditions of Contract, Clause 6.5, determining payment for work which cannot be quantified in specific units in the Bill of Quantities, or for 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 Bill of Quantities.

B1802 ORDERING OF DAYWORK

No daywork shall be undertaken unless written authorisation has been obtained from the Engineer.

B1803 MEASUREMENT AND PAYMENT

Item	Unit
B18.01 Labourers	
Unskilled Labourers:	hour (h)
Semi-Skilled Labourers:	hour (h)
Skilled Labourers:	hour (h)
B18.02 Foreman:	hour (h)
B18.03 Trucks:	hour (h)
(i) 6m3	hour (h)
(ii) 10m3	hour (h)
B18.04 TLB:	hour (h)
B18.05 Loader (up to 2m3 bucket):	hour (h)
B18.06 Grader (140G or Similar:	hour (h)
B18.07 Vibratory Roller:	hour (h)
B18.08 Grid Roller:	hour (h)
B18.09 Pedestrian Roller:	hour (h)
B18.10 Water Tanker (18kl):	hour (h)
B18.11 Chainsaw:	hour (h)

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B18.12	Mechanical Broom:hour (h)
B18.13	LDV:hour (h)
B18.14	Recycler /Milling Machine:hour (h)
B18.15	Excavator:	.....hour (h)
	(i) 20ton	..... hour (h)
	(ii) 23ton	..... hour (h)
	(iii) 30ton	..... hour (h)

The unit of measurement for items B18.01, B18.02, B18.03, B18.04, B18.05, B18.06, B18.07, B18.08, B18.09, B18.10, B18.11, B18.12, B18.13 B18.14 and B18.15 shall be the hour for the item of equipment 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 equipment depart until return.

Measurement shall only be for work instructed and directed by the engineer, where the engineer considers no other appropriate rate is applicable in the Pricing Schedule. Prior to the commencement of any work by the personnel described under item B18.01 and B18.02 the contractor must obtain written consent from the engineer regarding their classification in terms of "unskilled", semi-skilled" and "skilled" personnel.

The tendered rates under B18.01 and B18.02 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 B18.03, B18.04, B18.05, B18.06, B18.07, B18.08, B18.09, B18.10, B18.11, B18.12, B18.13 and B18.14 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 tendered rate for item B18.13 shall include full compensation for the cost of the vehicle including fuel, maintenance depreciation and running costs.

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

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B10 SECTION 2100: DRAINS**B2107 MEASUREMENT AND PAYMENT****Item****B21.01 Excavation for open drains**

ADD THE FOLLOWING TO THE THIRD PARAGRAPH:

"The tendered rate shall also include full compensation for trimming the open drains."

ADD THE FOLLOWING ITEMS:

Item**Unit****B21.01 Excavation for open drains**

Excavating soft and intermediate material, irrespective of depth, **cubic metre (m³)**

Extra over subitem B21.01 (a) for excavation in hard material, irrespective of depth.....**cubic metre (m³)**

The unit of measurement is the cubic metre of material excavated from the open drains as instructed by the Engineer. Quantities shall be calculated as being the product of the length of open drain excavated times the average width and depth, in accordance with cross-sections taken at 20 m intervals.

The tendered rates shall include full compensation for excavating, shaping, cleaning and trimming the open drains and for disposal of the resulting material at approved dumping sites provided by the Contractor, including all haul.

Payment shall distinguish between soft, medium and hard material as defined in Clause B1231 (c) of the project specifications.

B11 SECTION 2200: PREFABRICATED CULVERTS**B2204 CONSTRUCTION METHODS**

ADD THE FOLLOWING:

"Culverts shall be installed by the 'trench method'.

When instructed by the Engineer, measures shall be taken to reduce the effect of unsuitable material at the positions of prefabricated culverts. This will entail the additional excavation of a minimum of 1,0 m of in-situ material to a minimum width of 4,0 m, the even chamfering of the sides of the excavation to a grade of 1:4 and backfilling the excavation with imported fill material with at least G9 quality compacted to 90% of modified AASHTO density. Additional excavation as described above will be paid for under item 33.07. Backfilling of the excavation will be measured and paid for under item 33.01."

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B2205 EXCAVATION FOR CONSTRUCTION BY TRENCH METHOD**(a) Depth of excavation**

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE FIRST PARAGRAPH:

"The maximum overall depth of the trench shall, however, not exceed 2,0 m."

B2210 LAYING AND BEDDING OF PREFABRICATED CULVERTS**Concrete pipe culverts**

ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

"When instructed by the Engineer or when measures are required to reduce the effect of unsuitable material below culverts, the pipe joints shall be sealed with a 500 mm wide strip of waterproofing material glued symmetrically around the joint. A 150 mm wide strip of adhesive shall be applied to the edges of the material. An overlap of 150 mm shall be provided and the two (2) layers of the material at the overlap shall be glued together over the full area of 150 mm x 500 mm."

Portal and rectangular culverts

Placing the portal portions of culverts

ADD THE FOLLOWING:

"When instructed by the Engineer or when measures are required to reduce the effect of unsuitable material below culverts, the joints shall be sealed with a 500 mm wide strip of waterproofing material glued symmetrically around the joint. A 150 mm wide strip of adhesive shall be applied to the edges of the material. An overlap of 150 mm shall be provided and the two (2) layers of the material at the overlap shall be glued together over the full area of 150 mm x 500 mm."

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B2212 INLET AND OUTLET STRUCTURES, CATCHPITS AND MANHOLES**(i) Prefabricated energy dissipaters in outlet structures**

REPLACE THE PARAGRAPH WITH THE FOLLOWING:

"When shown on the Drawings or instructed by the Engineer, the Contractor shall supply and install prefabricated reinforced-concrete blocks in outlet structures. The blocks shall be Class 20/19 concrete manufactured to the dimensions shown on the Drawings or listed in the Bill of Quantities. All concrete work shall comply with the requirements of Series 6000."

B2215 SERVICE DUCTS

REPLACE THE LAST PARAGRAPH WITH THE FOLLOWING:

"The end of each duct shall be marked with a 300 mm x 300 mm x 100 mm Class 20/19 concrete marker block. A 200 mm x 100 mm galvanized steel or aluminium plate with the size, number and depth of pipes stamped on the surface shall be affixed to the top of the marker block. Each duct marker shall be at least 50 mm proud of the finished surface level."

B2218 MEASUREMENT AND PAYMENT**Item****Unit****B22.02 Backfilling:**

REPLACE THE DESCRIPTION OF SUBITEM 22.02(c) WITH THE FOLLOWING:

"(c) Extra over subitems B22.02(a) and (b) for soil cement (soilcrete) backfilling (percentage of cement indicated)"

Item**B22.03 Concrete pipe culverts**

ADD THE FOLLOWING TO THE FOURTH PARAGRAPH:

"The standard length of a concrete pipe is 2,44 m."

REPLACE PAYMENT ITEM 22.14 WITH THE FOLLOWING:

"Item**Unit****B22.14 Removing and stacking existing**

prefabricated culverts (all sizes)

metre (m)

The unit of measurement is the metre of existing culvert removed and stacked as instructed by the Engineer.

The tendered rate shall include full compensation for lifting, loading, transporting to stack, off-loading and stacking the culverts. The free-haul distance is 5,0 km.

Payment for the excavation and backfilling (including all layerworks) required to remove and stack existing prefabricated culverts will be made separately under payment items B22.01 and B22.02."

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REPLACE ITEM 22.26 WITH THE FOLLOWING:

"Item	Unit
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B22.26 Hand excavation:

To determine the positions of existing services:

In all other areas cubic metre (m³)

The unit of measurement is the cubic metre of material excavated within the lengths and widths authorised by the Engineer and the depth required to expose the service. Excavation in excess of the authorised dimensions will not be measured for payment.

The tendered rates shall include full compensation for all excavation, backfilling, compacting to 90% of modified AASHTO density, disposing of surplus excavated material, demarcating excavations with approved safety tape, keeping the excavations safe, dealing with surface or subsurface water, taking special care to ensure that services are not damaged in any way, and all other operations required to complete the work. The tendered rates shall also include for transporting surplus excavated material for a free-haul distance of 1,0 km.

No distinction will be made between hard and soft materials, nor will distinctions be made between the various types of service to be exposed or the depths to which excavations are taken.

When instructed by the Engineer, the reinstatement of the pavement layers, surfacing and kerbing will be measured for payment under item 22.27.

NB The Contractor shall supply adequate supervision of labourers excavating to expose services. Damage to a service caused by the Contractor shall be repaired at his expense, to the satisfaction of the owner of the service and the Engineer."

REPLACE PAYMENT ITEM 22.28 WITH THE FOLLOWING:

ADD THE FOLLOWING ITEM:

"Item	Unit
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B22.29 Waterproofing of prefabricated culvert joints with a 500 mm wide strip of Bituthene 3000 or an approved equivalent material metre (m)

The unit of measurement is the metre of 500 mm wide strips of Bituthene 3000 or an approved equivalent material glued over the joints. The specified 150 mm overlap will also be measured for payment.

The tendered rate shall include full compensation for procuring, furnishing, installing and glueing the Bituthene strip, including the adhesive, as specified."

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B12 SECTION 2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS
B2302 MATERIALS**Kerbing and channelling***ADD THE FOLLOWING:*

"Irrespective of the minimum transverse strength specified in SANS 927, all concrete shall be class 30/19."

B2304 CONSTRUCTION**Cast in situ kerbs and channels***ADD THE FOLLOWING:*

"Cast in situ kerbs, channels and edge beams shall be provided with a contraction joint every 2,0 m and an expansion joint every 20 m. The contact area of the contraction joint shall be painted with two coats of bitumen. Alternatively, joints may be cut and finished to a depth of 50 mm. The expansion joint shall consist of 12 mm thick Flexcell or an approved equivalent placed between adjoining concrete sections. The top part of the joint shall be sealed with a 12 mm x 12 mm silicone sealant. All joints shall be provided for the full depth of the concrete."

Cutting existing bituminous surfacing and pavement layers*REPLACE THE PARAGRAPH WITH THE FOLLOWING:*

"Where the Engineer instructs kerbing, edge beams, channelling or concrete-lined drains to be constructed against existing bituminous surfacing and pavement layers, the full depth of the bituminous surfacing and pavement layers shall be accurately cut with a mechanical saw to the required line and level before the kerbing, edge beams, channelling or concrete-lined drain is constructed. The cut edge shall be vertical for kerbing, edge beams, concrete-lined drains and channelling. The concrete shall be placed directly against the cut edge without formwork. All material outside the cut edge shall be removed to the required depth before the concrete is placed, and the debris shall be disposed of at approved dumping sites provided by the Contractor. The bituminous surfacing shall be protected and kept clean to the Engineer's satisfaction."

B2307 MEASUREMENT AND PAYMENT*REPLACE THE DESCRIPTION OF PAYMENT ITEM 23.01 WITH THE FOLLOWING:*

"Item	Unit
B23.01 Concrete kerbing, including joints <i>(class of concrete indicated for in situ concrete)</i>	metre (m)"

ADD THE FOLLOWING TO THE PAYMENT PARAGRAPH:

"The tendered rates shall also include full compensation for the construction of expansion and contraction joints as specified."

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Item**B23.07 Trimming of excavations for concrete-lined opendrain**

IN THE SECOND PARAGRAPH, COMMENCING WITH "The tendered rates shall", DELETE IN THE FIFTH, SIXTH AND SEVENTH LINES THE FOLLOWING WORDS "including removing unsuitable ground and backfilling with suitable material."

REPLACE THE DESCRIPTION OF PAYMENT ITEM 23.14 AS FOLLOWS:

"Item**Unit****B23.14 Cutting bituminous surfacing and pavement layers for concrete kerbing, edge beams, channelling or concrete-lined drains"****B13 SECTION 3100: BORROW MATERIALS****B3102 NEGOTIATIONS WITH OWNERS AND AUTHORITIES**

ADD THE FOLLOWING AFTER SUBCLAUSE (a):

"Before the Contractor enters private property to open borrow pits, construct access roads, temporarily occupy certain land or inspect the relevant areas, he shall negotiate with the owners concerned and advise them of his intentions, in accordance with the relevant ordinances.

The Employer will negotiate with landowners only with regard to compensation for gravel material obtained from borrow pits, but not for rock which shall be the responsibility of the Contractor, and who will subsequently pay such compensation to the owners.

The Contractor shall adhere to the Environmental Management Plan for borrow pits as prepared in accordance with the requirements of the Department of Mineral Resources, for the North West Province: Department of Public Works and Roads for any of the stated borrow pits he intends to develop. This shall include the removal and storage of the topsoil within the affected area, maintenance of the area during use and the rehabilitation of the area to its natural state on completion. A photographic record shall be kept of all borrow pit areas. Any construction material spoiled within these sites shall be buried to a depth of no less than 300 mm below the surface soil. No construction material of any nature shall be left visible after topsoiling. The Engineer shall confirm this before grassing commences. The area shall be kept free of all undesirable plant material.

Should the Contractor intend to utilize any new borrow pits, an environmental management plan (EMP) should be drawn up to the requirements of and for the approval of the Department of Mineral Resources before opening such borrow pits.

The Contractor is also responsible for rehabilitating the borrow pits after completion of the project in accordance with the approved EMP."

ADD THE FOLLOWING NEW PARAGRAPHS TO THE END OF THIS SUBCLAUSE:

"The Engineer shall instruct the Contractor as to the applicable usage of borrow pits always employing the best economic alternative (lowest cost in terms of tendered rates) taking cognizance of the following:

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Quality of material;
Haulage distance;
Hardness of material;
Overburden.

Under no circumstances shall the Contractor be entitled to any additional compensation in respect of any instruction by the Engineer as to the usage of borrow pit material."

B3103 OBTAINING BORROW MATERIALS

Add the following paragraph:

"The contractor shall adhere to the requirements within the environmental management plan for the preparation of the area to be utilised as a borrow pit. This shall include the removal and storage of the topsoil within the affected area, maintenance of the area during use and the rehabilitation of the area to its natural state on completion. A photographic record shall be kept of all borrow pit areas. Any construction material spoiled within these sites shall be buried to a depth of no less than 300mm below the surface soil. No construction material of any nature shall be left visible after top soiling. The engineer shall confirm this before grassing commences. The area shall be kept free of all undesirable plant material refer (5807(e))."

Careful selection of materials will be required in the borrow pits. The contractor shall refer to section 3200 of standard specifications with regard to his liabilities in respect of the contamination of good quality materials.

B3104 OPENING AND WORKING BORROW PITS AND HAUL ROADS**Removing topsoil**

ADD THE FOLLOWING:

"The topsoil shall not be stockpiled for longer than 6 months, nor shall the stockpile be higher than 2,5 m."

(c) Excess overburden

ADD THE FOLLOWING:

"In the case of the quarries and borrow pits, suitable overburden shall be used as fill and the Contractor must plan his operations accordingly and no payment will be made for stockpiling."

Excavating borrow material

ADD THE FOLLOWING:

"The Contractor shall at all times ensure that the removal of the material is carried out in such a manner that the stability of the exposed faces is not prejudiced and safe working conditions are maintained."

B3105 FINISHING-OFF BORROW AREAS AND HAUL ROADS**Borrow areas**

ADD THE FOLLOWING AFTER THE FOURTH PARAGRAPH:

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"The finishing-off of the borrow areas shall also be in accordance with the approved EMP."

B3108 MEASUREMENT AND PAYMENT

Item

Unit

B31.03 Finishing-off borrow areas in:

ADD THE FOLLOWING:

"Finishing-off of borrow areas using conventional construction equipment shall be in accordance with clause B3105."

Item

Unit

B3104 Protecting Borrow pits

Stock proof fencing as per detail, all-inclusivekm.
 Corner post as per detail, all-inclusive.....no.
 Gates, all-inclusive.....no.

The unit of measurement shall be the km of fence supplied and erected as indicated on the drawings and/or ordered by the engineer. Separate payment will be made per corner post and/or gate supplied of all material, labour and equipment required to erect the specified security fence, maintaining for the duration of the contract and removal at the end of the contract.

B14 SECTION 3200: SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS AND CUTTINGS, AND PLACING AND COMPACTING THE GRAVEL LAYERS

B3201 SCOPE

ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

"For safety reasons, all material for the construction of layerworks dumped in heaps next to the road surface where traffic is accommodated, shall be flattened on the same day. Payment for this activity shall be deemed to be included in the relevant tendered rates under Sections 3300, 3400 and 3600."

B3203 STOCKPILING THE MATERIAL

IN THE THIRD PARAGRAPH, REPLACE THE SECOND AND THIRD SENTENCES WITH:

"Before any stockpiling may be done the area shall be cleared of topsoil to a sufficient depth that will subsequently allow for the complete rehabilitation of the site with a cover of topsoil that does not exceed 100 mm in depth and is not less than 75 mm in depth. If there is insufficient topsoil; the Contractor shall acquire whatever balance is needed to rehabilitate the area at his own cost. No make-up topsoil shall be taken from the road reserve. The topsoil shall be stored in an area that shall not be affected by construction activities nor impede the natural flow of water. The topsoil so windrowed or stockpiled and its surrounds shall be kept free of all undesirable vegetation. The Contractor shall not commence his stockpiling activities without prior written

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approval from the Engineer that the site has been adequately prepared. Stockpile sites shall be graded smooth with an adequate slope to ensure proper drainage. The surface shall be watered and compacted to a depth of at least 150 mm and to a density of 90% of modified AASHTO density. The compacted surface shall be firm. Upon completion, the surface shall be swept clean.

Stockpile sites shall be large enough to allow the different types of material to be stockpiled without overlapping or exceeding the limits of the prepared site. Enlargement of the stockpile sites after the stockpiles have been placed will not be permitted without the Engineer's approval.

After the stockpiled material has been removed, the site shall be reinstated as closely as possible to its original condition by ripping of the affected areas, re-landscaping if necessary, re-instatement of the topsoil and re-vegetation."

ADD THE FOLLOWING PARAGRAPH:

"Material intended for the construction of the gravel base shall be stockpiled beforehand to allow adequate time for the Engineer to conduct the necessary material tests to confirm the suitability of the stockpiled material."

B3204 BREAKING-DOWN THE MATERIAL**B3206 CONTROLLING THE MOISTURE CONTENT OF MATERIALS**

ADD THE FOLLOWING:

"With respect to the last paragraph, the onus is placed on the Contractor to show that he has taken all reasonable precautions to keep the material dry and to dry it out and this includes the scheduling of the work in the correct season."

B3208 PLACING AND COMPACTING THE MATERIAL IN LAYER THICKNESSES OF 200 mm AND LESS AFTER COMPACTION**(a) Spraying and mixing****(i) General requirements**

ADD TO SECOND PARAGRAPH:

"When pavement material is to be stabilized, the moisture content of this material to be compacted shall be at 1% below the optimum moisture content, unless otherwise approved by the Engineer."

B3212 MEASUREMENT AND PAYMENT

IN THE INTRODUCTORY PARAGRAPH, REPLACE THE COMMA AFTER "below" IN THE PENULTIMATE LINE WITH A FULL STOP AND DELETE THE REMAINDER OF THE PARAGRAPH.

ADD THE FOLLOWING AS A SECOND PARAGRAPH:

"Separate payment for work applicable to these payment items shall be made under the relevant sections in these specifications pertaining to the construction material required. For example, material procured from borrow that is crushed and screened for use in selected and subbase layers shall be measured for payment under Section 3400: Pavement Layers of Gravel

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Material as:

Subitems 34/32.01(d) and 34/32.03(d) etc., whichever is the relevant pairing of payment items under Sections 3200/3400."

B15 SECTION 3300: MASS EARTHWORKS**B3301 PLACING AND COMPACTING THE MATERIALS IN LAYER THICKNESSES IN EXCESS OF 200mm AFTER COMPACTION**

Add the following new subclause:

(e) Pioneer layer

"The maximum size rock used in pioneer layers shall be 500mm and the layer thickness before compaction shall not be more than one-and-a-half times the maximum actual size of the rock. Not more than 20% of pioneer layer material shall pass through the 2,0mm sieve. Pioneer layer processing and compaction shall be as specified in sub-clause 3307(c) of the standard specifications".

Add the following to the table in the second paragraph of this sub-clause:

"Pioneer layers – 350- 500mm dimension in some areas.

Not more than 20% of pioneer layer material shall pass through the 2,0mm sieve."

B3302 MATERIALS**Fill**

ADD THE FOLLOWING TO SUBITEM (iv):

"The maximum swell at 100% modified AASHTO compaction shall not be more than 2%."

B3303 CLASSIFICATION OF CUT AND BORROW EXCAVATION

CLASSIFICATION OF CUT AND BORROW EXCAVATION SHALL BE REVISED AS FOLLOWS:

"(a) Classes of excavation

Intermediate excavation

No distinction shall be made between soft and intermediate excavation, and all intermediate excavation shall be classified and measured as soft excavation."

B3305 TREATING THE ROADBED**(a) Removing unsuitable material:**

REPLACE THE THIRD AND FOURTH PARAGRAPH WITH THE FOLLOWING:

"The removal of unsuitable material shall be paid for under payment item B33.07. For payment using conventional construction methods a distinction shall first be made in respect of the depth of the material removed and secondly in respect of the stability of the material and the construction plant to be used. For removing any stable material payment will be made under payment item B33.07. Furthermore, the thickness of the layer to be removed must be less than 200 mm. If the layer to be removed is more than 200 mm payment will be made under payment item B33.04 as for the ordinary excavated cut to spoil material.

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For the purposes of this clause and of payment item B33.07, stable material shall be defined as material which can be removed effectively by means of normal road construction equipment such as bulldozers, road graders, scrapers, mechanical shovels, back hoes or excavators."

B3306 CUT AND BORROW

(e) The temporary stockpiling of materials

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The Contractor shall plan his activities in such a manner so that materials excavated from borrow areas and cuttings can be directly transported to and placed at the designated points.

The temporary stockpiling of material will not be paid for separately unless instructed by the Engineer, and full compensation will be deemed to have been included in the rates tendered for the various payment items for work for which the stockpiled material is to be used."

General

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE SECOND PARAGRAPH:

"The final cut surface in hard excavation shall not be more than 0,5 m below the specified slope face, measured at right angles to the strike and dip directions of the slope face."

B3307 FILLS

(d) Benching

REPLACE THE FIRST SENTENCE OF THE SECOND PARAGRAPH WITH THE FOLLOWING:

"The dimensions of benches as well as the extent to which existing fills have to be cut back to form benches shall be subject to the Engineer's approval."

Widening of fills

REPLACE THE FIRST SENTENCE OF THE EIGHTH PARAGRAPH WITH THE FOLLOWING:

"No additional payment will be made for widening of existing fills along the road. The widening of fills shall be measured and paid for under item 33.01."

B3310 CONSTRUCTION TOLERANCES

ADD THE FOLLOWING SUBCLAUSE:

"(c) Layer thicknesses

The thickness tolerances referred to in clauses 8205 and 8305 for the 150 mm natural gravel fill layer compacted to 93% of modified AASHTO density, shall be as follows:

	D ₉₀	D _{max}	D _{average}
Fill layer	30 mm	40 mm	10 mm"

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B3312 MEASUREMENT AND PAYMENT**General directions**

(3) Work in restricted areas

DELETE THE CONTENTS OF THIS SUBCLAUSE AND REPLACE IT WITH THE FOLLOWING:

"No additional or extra over payment will be made for work in restricted or confined areas."

AMEND THE DESCRIPTION OF PAYMENT ITEM 33.01 AS FOLLOWS:

"Item	Unit
-------	------

B33.01 Cut and borrow to fill, including free-haul up to 1,0 km:"

IN THE FIFTH PARAGRAPH REPLACE "free-haul distance of 0,5 km" WITH " free-haul distance of 1,0 km".

REPLACE THE FIFTH MEASUREMENT AND PAYMENT PARAGRAPH WITH THE FOLLOWING:

"The tendered rates shall include full compensation for procuring furnishing and placing the material, including excavating as if in soft excavation, the cutting of benches, the transporting of material over the haul distance, for preparing, processing, shaping, watering, mixing and compacting the materials to the densities or in the manner specified herein and for removing and disposing of up to 5% oversize material from the road after processing, including all haul."

Item	Unit
------	------

33.04 Cut to spoil, including free-haul up to 0,5 km. Material obtained from:

CHANGE THE DESCRIPTION OF PAYMENT ITEM 33.04 TO THE FOLLOWING:

"Item	Unit
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**B33.04 Cut to spoil, including free-haul up to 1,0 km.
Material obtained from:**

REPLACE THE FOURTH MEASUREMENT AND PAYMENT PARAGRAPH WITH THE FOLLOWING:

"The tendered rates for cut to spoil shall include full compensation for excavating from the road prism and roadbed in the various classes of excavation for loading, transporting the material over the haul distance, off-loading and disposing of the material as specified, including shaping and levelling off any piles of spoil material.

It shall also, where applicable, allow for spoiling at sites where borrowing is taking place at the same time. No additional payment for temporary stockpiling or double handling will be made."

IN THE FOURTH PARAGRAPH REPLACE "free-haul distance of 0,5 km" WITH " free-haul distance of 1,0 km".

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B16 SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL**B3402 MATERIALS****(a) General**

ADD THE FOLLOWING TO THE SECOND PARAGRAPH:

"Natural gravel shoulder material shall comply with the requirements of a Type 1 material according to Table 3402/4."

ADD THE FOLLOWING AFTER THE SECOND PARAGRAPH:

"Distinction shall be made between crushed and natural G4, G5 and G6 materials. Where the crushing and/or screening of these materials has been specified, the combined grading shall conform to the grading limits specified for G4 class material in Table B3402/1.

The same shall apply for all materials obtained from commercial sources."

REPLACE THE GRADING SECTION IN TABLE 3402/1 WITH:

"TABLE B3402/1: REQUIREMENTS FOR TYPES OF G4 TO G6 MATERIALS

GRADING	Nominal aperture size of sieve (mm)	Percentage passing through sieve by mass			The percentage by mass passing the 2,00 mm sieve shall not be less than 20% nor more than 70%
		Crushed material Nominal maximum size		Uncrushed material (mm)	
	53			100	
	50			95 – 100	
	37,5	100		85 – 100	
	28	86–95			
	20	73–86	87–96	61–91	
	14	61–76	73–86		
	5	37–54	43–61	31–66	
	2	23–40	27–45	20–50	
	0,425	11–24	13–27	10–30	
0,075	4–12	5–12	5–15		

Note:

Refer to standard COLTO table for COLTO grading if required."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**(b) Compaction requirements**

AMEND THE COMPACTION REQUIREMENTS AS FOLLOWS:

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

INTERNAL STREETS	
Layer	Description
Base	98% Modified AASHTO density (G1).
Sub-Base	97% Modified AASHTO density (C3).
Upper Subbase	95% Modified AASHTO density (G5).
Upper Selected	93% Modified AASHTO density (G5-6).
Lower Selected	93% Modified AASHTO density (G5-6).
Roadbed preparation	90% of modified AASHTO density.

"(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."

B3403 CONSTRUCTION

ADD THE FOLLOWING SUBCLAUSE:

"(f) Temporary stockpiling of material

The Contractor shall plan his activities so that materials excavated from borrow areas and cuttings or imported from commercial sources can be directly transported to and placed at the designated points.

The temporary stockpiling of material will not be paid for separately unless instructed by the Engineer, and full compensation will be deemed to have been included in the rates tendered for the various payment items for work for which the material is to be used."

B3406 QUALITY OF MATERIALS AND WORKMANSHIP

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

"Test results and measurements will be assessed in accordance with the provisions of Section 8200."

B3407 MEASUREMENT AND PAYMENT

DELETE THE FIRST PARAGRAPH AND REPLACE IT WITH THE FOLLOWING:

"No additional or extra over payment will be made for work in restricted or confined areas."

On this contract, no extra over payment will be made due to the nature of the site or the size

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of the work available. All costs associated with carrying out the works are deemed to be included in the tendered rates for the items in the BOQ.

B17 SECTION 3500: STABILIZATION**B3502 MATERIALS****Chemical stabilising agents**

Delete sub clauses (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 CEMII 32.5 (B-L) shall be used for stabilisation purpose."

Curing the Stabilised work

Add the following to paragraph (i):

"Method (iii) and (iv) shall not be applicable."

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(iii) Fillers

ADD THE FOLLOWING:

"The filler to be used shall be CEM II B – L 32.5 N cement or road lime as directed by the Engineer. The nominal rate of application for tender purposes shall be 1,5% of compacted material.

The Engineer may instruct the Contractor to amend the rate of application and type of filler after tests on the Site during construction."

Curing the Stabilised work

Add the following to paragraph (i):

"Method (iii) and (iv) shall not be applicable."

B3503 CHEMICAL STABILIZATION**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."

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

All stabilized layers which have been damaged by frost or by the formation of ice in the layer shall be removed and replaced by the contractor at his expense unless agreed otherwise by the Engineer. The contractor shall make due allowance for these requirements in his construction programme and no claims in this regard will be considered.

B3506 TOLERANCES**Uniformity of mix (chemical stabilization)**

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:

$$\frac{\text{---}}{\text{---}} \times 100$$

where:

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X_n is the average, and
 S_n is the standard deviation of stabilizer."

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

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

"Test results and measurements will be assessed in accordance with the provisions of Section 8200."

ADD THE FOLLOWING TO THE FOURTH PARAGRAPH:

"The stabilized material sampled from the layer for the compaction of modified AASHTO briquettes, shall be prepared according to SANS 3001-GR54 (Replacing TMH1 Method A16T); i.e. discard material coarser than a 37,5 mm test sieve, and compacted according to SANS 3001-GR31 (Replacing TMH1 Method A7)."

ADD THE FOLLOWING PARAGRAPHS:

"The Engineer shall be notified at least 48 hours in advance of any planned stabilization to enable him to conduct tests himself."

Stabilization strength shall be determined by incorporating the Rapid Cure Method as described in SANS 3001-GR53 (Replacing TMH1 Method A13T).

Where the stabilizing agent is to be spread by hand, pockets of the stabilizing agent shall be placed on the layer at regular intervals. However, spreading shall only commence when the Engineer is satisfied that the correct quantity of stabilizing agent has been placed on the layer and has given permission that the stabilizing agent may be spread."

B3510 MEASUREMENT AND PAYMENT

REPLACE THE FIRST PARAGRAPH WITH THE FOLLOWING:

"No additional or extra over payment shall be made for stabilization work in restricted or confined areas."

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 as instructed by the Engineer. Additional material preshaped to allow for finishing by cutting only will not be included in the measurement."

ADD THE FOLLOWING TO THE PAYMENT PARAGRAPH:

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"The tendered rate shall also include full compensation for working in restricted areas on top of and alongside culverts where necessary."

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."

B18 SECTION 5100 : PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION**B51.01 STONE PITCHING****(a) Plain pitching**

Method 1

(b) Grouted stone pitching**B5104 CONCRETE PITCHING AND BLOCK PAVING**

Cast in situ concrete(class 30/19,250mm thickness)
Segmented block paving (80 mm thick interlocking) including 20mm river sand
Prefabricated concrete paving blocks for side walk pavement (60mm interlocking)

B5105 CONCRETE EDGE BEAMS

"(a) class 20/19 (300mm wide X 300mm thick)

B21 SECTION 5500: FENCING**B5502 MATERIALS****(a) Straining posts, stays, standards and droppers**

REPLACE THE HEADING OF THIS SUBCLAUSE WITH THE FOLLOWING:

"(a) Straining posts, corner posts, stays, standards and droppers"

ADD"corner posts,"AFTER"Straining posts,"IN THE FIRST LINE OF THE FIRST PARAGRAPH.

ADD", corner posts"AFTER"straining posts"IN THE FIRST LINE OF THE FOURTH PARAGRAPH.

ADD THE FOLLOWING:

"Straining posts, corner posts, stays, standards and droppers shall be timber of the type

and size specified on the Drawings. Timber shall comply with the requirements of SANS 457 and shall be treated with creosote which complies with SANS 616. Where the cutting of posts is unavoidable after having been treated, the Engineer may permit the required length to be cut off from the bottom of a post, provided that the exposed area is subsequently thoroughly treated with creosote."

Gates

REPLACE THE THIRD PARAGRAPH WITH THE FOLLOWING:

"Gates shall be fully galvanized according to the requirements of SANS 121."

5505 CLEARING THE FENCE LINE

ADD "in accordance with clause B1705" AFTER "cleared" IN THE FIRST LINE OF THE FIRST PARAGRAPH.

REPLACE "Section 1700" IN THE EIGHTH AND NINTH LINES OF THE FIRST PARAGRAPH WITH "subclause B1705(b)."

5506 ERECTING STRAINING POSTS AND STANDARDS

REPLACE THE HEADING OF THIS SUBCLAUSE WITH THE FOLLOWING:

"B5506 ERECTING STRAINING POSTS, CORNER POSTS AND STANDARDS"

ADD "and/or corner posts" AFTER "Straining posts" IN THE FIRST LINE OF THE FIRST PARAGRAPH.

ADD "and corner posts" AFTER "Straining posts" IN THE FIRST LINE OF THE SECOND PARAGRAPH.

ADD "and corner posts" AFTER "straining posts" IN THE FIRST LINE OF THE FOURTH PARAGRAPH.

ADD ", corner posts" AFTER "straining posts" IN THE FIRST AND FIFTH LINES OF THE SIXTH PARAGRAPH.

B5514 MEASUREMENT AND PAYMENT

Item	Unit
B55.02 Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:	
REPLACE THE DESCRIPTION OF SUBITEM (i) WITH THE FOLLOWING:	
"(i) Straining posts, corner posts, stays and anchors:"	
REPLACE SUBITEM 55.02(i)(i)(1) WITH THE FOLLOWING:	

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"(i) Vertical

Steel straining posts and corner posts
(type, size and length, and whether
galvanized or painted indicated) number"

REPLACE THE SUBHEADING "Straining posts (Subitem (i))" WITH "Straining and corner posts (Subitem (i))".

ADD "and corner" AFTER "straining" IN THE FIRST LINE OF THE SECOND LAST PARAGRAPH.

ADD "gravel drainage layer below post footings" AFTER "concrete" IN THE SIXTH LINE OF THE SECOND LAST PARAGRAPH.

DELETE "or drilling" IN THE SEVENTH LINE OF THE SECOND LAST PARAGRAPH.

B22 SECTION 5600: ROAD SIGNS**B5601 SCOPE**

REPLACE "South African Road Traffic Signs Manual" IN THE SECOND PARAGRAPH WITH "SADC Road Traffic Signs Manual"

B5602 MATERIALS**(a) Structural steel**

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

"All structural steel, including tubes, shall be galvanized in accordance with the requirements of SANS 121, thickness > 6 mm, as applicable."

REPLACE THE SECOND SENTENCE OF THE FIRST PARAGRAPH WITH THE FOLLOWING:

"Channels, square tubes, angle irons and other steel members on the reverse side of the sign boards and steel tubes for sign supports shall be painted in accordance with the following specifications: SANS 926 for a two-pack zinc-rich epoxy primer, SANS 681 for the undercoat and SABS 1413 for a chloro-rubber finishing coat."

Retro-reflective material

IN THE FIRST SENTENCE REPLACE SABS 1519 WITH SANS 1519-1 AND DELETE "and the adhesion requirements of CRS 191".

REPLACE THE THIRD LAST PARAGRAPH WITH THE FOLLOWING:

"The Contractor shall provide proof that Classes I and III of the retro-reflective commercial products to be used have been generally and successfully used in South Africa during the last three years.

Classes I and III retro-reflective materials shall be warranted against any abnormalities as described in SANS 1519-1 for 7 and 10 years respectively."

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ADD THE FOLLOWING AFTER THE SECOND LAST PARAGRAPH:

"Should a contractor manufacture signs without the necessary approval it shall be deemed that the Contractor unconditionally guarantees the sign for the full period of seven years. Should failure of the sign due to suspected incompatibility of materials (in the opinion of the Engineer) occur within seven years, the Contractor shall remanufacture the sign and re-erect the sign at no cost to the Employer."

ADD THE FOLLOWING TO THE LAST PARAGRAPH:

"Reflective sheeting shall be applied to sign faces strictly in accordance with the retro-reflective material manufacturer's specifications. Legend and background materials shall be supplied by the same manufacturer. Every batch of material used for signs on the Contract shall be identified by a batch number. A certificate of all materials' compliance with SANS 1519-1 shall be submitted to the Engineer within 3 months of the material being used. An outdoor weathering test will not be required."

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ADD THE FOLLOWING:

"Retro-reflective materials shall comply with the requirements of SANS 1519-1 but the requirements of Clauses 3 and 4 of CKS 191 shall take precedence.

When measured in accordance with SANS 1519, the coefficient of retro-reflection of a retro-reflective material shall not be less than the appropriate value given in Table 1 of SANS 1519-1 (duplicated as Table B8118/1 in these Specifications).

The colour of the retro-reflective material shall match the specified colour and shall not be faded to such an extent that its effectiveness is unacceptably impaired in the opinion of the Engineer. The surface of the material shall be undamaged and free from scratches, stains or other marks.

When, in the opinion of the Engineer, the retro-reflective material does not comply with the above requirements, the Contractor shall replace the defective material at his own cost, to the satisfaction of the Engineer."

(k) Back vinyl

IN THE SECOND SENTENCE REPLACE "SABS 1519" WITH "SANS 1519-1" AND DELETE THE REST OF THE SENTENCE.

ADD THE FOLLOWING SUBCLAUSES:**"(l) Temporary covers for road signs**

When required, existing road signs shall be fully or partially covered with burlap or 0,5 mm thick black plastic or other approved material to obscure destinations that are temporarily inapplicable or irrelevant.

The covers shall be neatly applied and firmly fixed in position so that they will be able to withstand strong gusts of wind or eddies caused by passing traffic."

B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS**(a) Road sign boards****ADD THE FOLLOWING TO THE FIRST PARAGRAPH:**

"The Contractor shall submit a schedule detailing the suppliers and trade names for the main constituent components in the manufacturing process.

The Contractor shall also submit documentation from the manufacturer or the South African agents or distributors of the retro-reflective sheeting that will be used in the manufacturing of the road sign boards, attesting to the fact that the road signs manufacturer conforms with the storage, handling and application procedure recommended by the reflective sheeting material manufacturer."

INSERT THE FOLLOWING AFTER THE THIRD PARAGRAPH:

"The colour of the retro-reflective material shall match the specified colour and shall not be faded to such an extent that its effectiveness is unacceptably impaired in the opinion of the Engineer. The surface of the material shall be undamaged and free from scratches, stains or other marks.

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When, in the opinion of the Engineer, the retro-reflective material does not comply with the above requirements, the Contractor shall replace the defective material at his own cost, to the satisfaction of the Engineer.

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

B5604 ROAD SIGN FACES AND PAINTING

ADD THE FOLLOWING NEW SUBCLAUSE:

"(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 sections 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**(b) Excavation and backfilling**

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE FIRST PARAGRAPH:

"A 300 mm thick gravel drainage layer shall be placed at the bottom of the excavations and shall be compacted before the excavations are backfilled.

The dimensions of the excavation for the drainage layers shall be over and above that for the footings as shown on the Drawings."

(c) Erection

ADD THE FOLLOWING PARAGRAPHS:

"After erection the sign board shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material's manufacturer.

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On completion of signs on the road section, the Contractor shall clear an area immediately around the sign. The area shall be 10 m wide at the side closest to the road and 5 m wide at the side farthest from the road. The area so cleared shall be treated with an approved chemical growth-retarder in accordance with the supplier's application instructions.

No separate payment shall be made for the clearance, or the procurement and application of the growth retarder."

ADD THE FOLLOWING CLAUSES:

"B5610 DISMANTLING AND REMOVING ROAD SIGNS AND THEIR SUPPORTS

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).

When instructed by the Engineer, concrete footings of existing signs shall be demolished and removed to a depth of 200 mm below the adjacent ground level.

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 Bill of Quantities. Payment will differentiate between different types of sign panels.

B5609 MEASUREMENT AND PAYMENT

ADD THE FOLLOWING ITEMS:

"Item	Unit
B56.10 Statutory road signs	number

The unit of measurement shall be the number of danger plates provided and erected in accordance with the drawings or as directed by the Engineer.

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 or as directed by the Engineer.

Item	Unit
B56.11 Dismantling and disposal of road signs:	
(a)Hazard marker signs	number
(b)Single post signs (other R and W signs)	number
(c)Multiple post ground-mounted signs	number

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The unit of measurement is the number of signs removed.

The tendered rate shall include full compensation for dismantling the sign boards, removing the supports and foundations of ground-mounted signs, disposing of the material and clearing the removal site. It shall also include for all labour, plant, supervision and all other incidentals.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B23 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 the appropriate road marking paint and materials for permanent road markings to ensure conformance with the requirements of this specification rests with the Contractor. Such paint and material shall have technical characteristics (brightness, luminance, skid resistance, durability) equal to or greater than road marking paint and materials specified in subclauses 5702(a), (b) and B5702(c).

Where plastic road-marking material (hot-melt plastic (also known as thermoplastic) and two-component (also known as cold plastic)) is used, the Contractor shall obtain an approved guarantee from the manufacturer that the paint complies with the specification. This shall be submitted to the Engineer on request."

REPLACE SUBSUBCLAUSE B5702(a)(i) WITH THE FOLLOWING:

"(i) Road marking paint

Road marking paint shall be Type 1 as specified in SANS 731-1. Only paint, manufactured in a SANS approved and accredited facility shall be accepted. The no-pick-up time of road-marking paint shall comply with the Class 1 requirement in accordance with SANS 731-1 and SANS 731-2.

The paint shall be delivered at the site in sealed containers marked in accordance with SANS 731-1.

The viscosity of the paint shall be such that it can be applied without being thinned down."

ADD THE FOLLOWING SUBITEM:

"(c) **Retro-reflective beads**

Retro-reflective glass beads shall be applied to the wet paint, thermoplastic and cold plastic.

The beads shall comply with Class A beads in accordance with EN 1424: 1998, with the following requirements or as approved by the Engineer:

- colour : crystal clear
- roundness : > 80%
- size range of : 14 – 200 US Mesh (75 – 1400 Microns)
- refractive index : > 1.5
- specific gravity : ± 2.5
- granulometry :

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CUMULATIVE RETAINED MASS		
SIEVE	MINIMUM	MAXIMUM
1 700	0	2
1 400	0	10
1 180	5	30
850	40	80
600	70	100
425	80	100
355	90	100
212	95	100
Pan	100	100

The beads shall be delivered to the site in sealed bags, marked with the name of the manufacturer, the batch number and an inspection seal of SABS, confirming that the beads form part of a lot tested by SABS and comply with the requirements of EN 1424: 1998. Alternatively, the Contractor shall at all times have a SABS certificate on the site, identifying the batches to which the inspection seals apply and certifying that they have been tested by SABS, and comply with the requirement of EN 1424: 1998."

B5704 MECHANICAL EQUIPMENT FOR PAINTING

ADD THE FOLLOWING SENTENCE AT THE END OF THE FIRST PARAGRAPH:

"The road-marking machine shall be fitted with a device to guide the operator to the centre of the line to be painted. This device shall be used at all times of operation."

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."

B5707 APPLYING THE PAINT

INSERT THE FOLLOWING BEFORE THE FIRST PARAGRAPH:

"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.

Provision is also made under item B57.07 for de-establishment and re-establishment in the contract or defects liability period if such action is required by delays not attributable to the Contractor and/or ordered by the Engineer."

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REPLACE THE SIXTH PARAGRAPH WITH THE FOLLOWING:

"Solvent borne road marking paint shall be applied at a nominal rate of 0,42 l/m² or as directed by the Engineer. Thermoplastic road marking shall be applied at a nominal rate of 2,5 kg/m² to achieve a minimum thickness of 1,25 mm to 1,5 mm or as directed by the Engineer. The two-component road marking material shall be applied by hand by means of a trowel. The desired symbol or line shall be marked with a tape or a template on the road surface. Thereafter apply the required volume of material and spread uniformly over the entire area. When dry/set, remove the tape or template. A spreading rate of 4,5 kg/m² is estimated to achieve a 2,0 mm material thickness.

In order to ensure proper coverage on all types of surfaces the Engineer may order an increase in the above nominal application rates. Payment for these variations in application rates shall be made under item 57.04.

A daily log-sheet, provided by the Employer, shall be completed and signed by the Contractor and the Engineer's representative, recording the quantities of paint and glass beads used on that day and shall be available for inspection at all times. The completed and signed log-sheet for the period covered by a payment certificate shall be attached to the payment certificate."

REPLACE THE LAST PARAGRAPH WITH THE FOLLOWING:

"Solvent-based road marking as specified by the Engineer shall be carried out within 14 days of opening the road full width to traffic after the completion of the surfacing.

If in the in the opinion of the Engineer, conditions are unsafe, the centre-line shall be painted immediately after 2,0 km of continuous road has received a new asphalt layer, or 4,0 km of continuous road has received a new seal surfacing."

B5708 APPLYING THE RETRO-REFLECTIVE BEADS

IN THE FIRST PARAGRAPH, REPLACE THE NOMINAL APPLICATION RATE OF "0,8 kg/litre" WITH "400 gm/m²".

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

"The thermoplastic road marking material and two-component road marking material shall contain insitu glass beads of minimum content of 25% in order to obtain night visibility (reflectivity). The Contractor shall immediately apply additional glass beads at 400 g/m² to obtain immediate reflectivity. The beads shall be sprayed onto the road marking layer by means of a pressure sprayer. Where letter, symbol, traverse line and island road marking is undertaken by hand, the glass beads may be applied by hand if approved by the Engineer. Prior to any hand application work, the Contractor shall first request approval from the Engineer."

ADD THE FOLLOWING:

"Beads shall be applied in accordance with EN 1424."

B5710 TOLERANCES

ADD THE FOLLOWING PARAGRAPHS TO SUBCLAUSE (c) ALIGNMENT OF MARKINGS:

"When an unbroken line and a broken line are painted alongside each other, the beginning and the end of the unbroken line shall coincide with the beginning of one broken line and the end of another broken line. When existing lines are repainted, the new markings shall not deviate more than 100 mm in the longitudinal direction nor 10 mm in the transverse direction from the existing marking.

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The alignment of the road studs shall not deviate from the true alignment by more than 10 mm and shall be positioned so that the reflective faces are within 5 of a right angle to the centre line of the road."

ADD THE FOLLOWING SUBCLAUSE:

"(e) Testing**Plant**

Before painting any permanent road markings, the Contractor shall satisfy himself and the Engineer, by painting test lines on a section of pavement other than the section required to be marked:

that the painting machine is in good working order and properly adjusted;
that the operator is fully experienced; and
that the machine sprays at the specified rate of paint application.

The Contractor shall bear the cost of all materials and workmanship required for the above plant tests.

In addition, the Contractor shall conduct random paint thickness tests and dip/spread tests as required by the Engineer."

B5711 GENERAL

INSERT THE FOLLOWING INTO THE LAST SENTENCE OF THE LAST PARAGRAPH BETWEEN "black paint" AND "or chemical paint remover":

", bituminous emulsion, slurry"

ADD THE FOLLOWING TO THE LAST PARAGRAPH:

"Where black paint is used, it shall be matt."

ADD THE FOLLOWING CLAUSE:

"The Contractor shall provide temporary traffic control facilities in accordance with Section 1500 of the COLTO's standard specifications for road and bridge works to ensure traffic safety where work is being executed.

Property and/or road signs damaged by the Contractor, his personnel, his agents or sub-contractors shall be repaired or restored to their condition prior to the damage at his own cost."

B5712 FAULTY WORKMANSHIP OR MATERIALS

ADD THE FOLLOWING PARAGRAPH:

"Should less than 95% of the road markings comply with the specified coefficient of retro-reflected luminance when measured in accordance with SANS 6261 at a 5% sample level, the Contractor shall repaint the works at his own cost."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B5714 MEASUREMENT AND PAYMENT

Item **Unit**

B57.05 Roadstuds

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE SECOND PARAGRAPH:

"No additional payment will be made should temporary or permanent road studs be replaced if lost or broken during the construction period or the maintenance period."

Item **Unit**

B57.06 Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)

ADD THE FOLLOWING:

"Referencing of existing road markings prior to milling and other operations, shall be included in the tendered rate for setting out and pre-marking."

Item **Unit**

B57.07 Re-establishing the painting unit at the end of the maintenance period

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE FIRST PARAGRAPH:

"The tendered lump sum shall also include for the erection and removal, on a daily basis as the work progresses, the minimum accommodation of traffic facilities specified in clause 5713."

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SECTION 5900:FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

B5901 **SCOPE**

ADD THE FOLLOWING:

"Where reference is made in this section to 'the road and road reserve', this shall also be deemed a reference to 'the Site of the Works'."

B5904 **MEASUREMENT AND PAYMENT**

Item **Unit**

B59.01 Finishing the road and road reserve:

REPLACE SUBITEM (b) WITH THE FOLLOWING:

"(b) Single-carriageway road:

Roads with bituminous surfacing kilometre (km)

Item **Unit**

B59.02 Treatment of old roads and temporary deviations:

ADD THE FOLLOWING SUBITEM:

Gravel roads (including service and access roads) kilometre (km)

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B31 SECTION 8100: TESTING MATERIAL AND WORKMANSHIP**B8102 TESTING METHODS**

INSERT THE FOLLOWING AS A NEW FIRST PARAGRAPH:

"Where reference is made to TMH test methods in this specification or the standard specifications, it shall be replaced with the relevant current published SANS test method."

B8103 THE COSTS OF TESTING**Process Control**

RENAME THE HEADING AS "Materials Quality Control" AND REPLACE THE CONTENTS WITH THE FOLLOWING:

"Testing shall be undertaken by a combined laboratory facility for process control (where the process control testing can be utilised as acceptance control), acceptance control and correlation testing subject to the following requirements laid down by the Employer:

The Contractor accepts the test results of the combined laboratory. Should there be any doubts with regard to certain test results, this will be settled by an independent laboratory mutually agreed upon. The cost in such cases will be to the account of the party at fault. The Contractor shall apply in writing, quoting this clause, as to which specific tests are in doubt, providing test reference numbers and details as to the reasons why the test result is in doubt.

The Contractor accepts that the Engineer will be in charge of the combined laboratory.

The Contractor will be allowed to place a permanent representative in the combined laboratory to observe the laboratory operations. The cost of such representation cannot be claimed as a payment contribution towards payment item B81.04, but will be for the account of the Contractor. The Contractor shall indicate in writing within 14 days of the commencement date if such representation will be required or declined.

The estimated cost per month to establish and operate the combined laboratory for the contract period as listed above, allows for the following items:

Establishment of laboratory buildings
Salaries and labour for all laboratory staff members
Housing for all laboratory staff members
Transport requirements (based on distance) for staff and material testing
Provision of laboratory equipment (as required for the contract)

A pay item for the monthly contribution from the Contractor's interim payment certificates has been provided under payment item B81.04."

B8105 TESTING THE AGGREGATES

ADD THE FOLLOWING SUBCLAUSES:

"(g) Ethylene Glycol Weathering Test for durability of aggregates used in seals

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Select 100 number single sized chippings from a representative sample retained on the 14 mm sieve but passing the 20 mm sieve. The selected aggregate chippings shall be oven dried for 12 hours and the mass of the chippings shall then be determined to the nearest 0,001 kg. The chippings shall then be immersed in ethylene glycol contained in a glass container for 28 days. After 28 days the chippings shall be removed from the ethylene glycol and oven dried for 12 hours. All friable and loose pieces shall then forcibly be removed by fingers from the chippings. The mass of the chippings shall then be determined and the percentage weathering loss shall be calculated from the results.

Acceptance Criteria

Only aggregate that shows a breakdown after 26 days in ethylene glycol of less than 2% shall be used in seals or in asphalt.

Ethylene Glycol Weathering Test for durability of aggregates used in concrete

A 2 kg sample of single sized (20 mm) stone is washed, air dried and then soaked in ethylene glycol for six days.

On the sixth day the sample is removed from the ethylene glycol, washed thoroughly with tap water and oven dried overnight.

A conventional dry sieve analysis is carried out on day 7. The sample is re-submerged in ethylene glycol and the above 7-day cycle is repeated.

On day 14, following the dry sieve analysis, the sample is again submerged in ethylene glycol and allowed to stand for a further thirteen days.

After thirteen days the sample is removed from the ethylene glycol, washed and oven dried overnight.

On day 28 the final sieve analysis is carried out.

Photographs of the rock samples are to be taken after each of the above cycles.

Acceptance Criteria

Only aggregate that shows a breakdown of the initial sizes of less than 20% by weight after the 28 days testing in ethylene glycol shall be used as coarse aggregate in concrete."

B8109 TESTING TAR, BITUMEN AND ASPHALT**Tests described in the standard specifications for tars, bitumen's and bituminous emulsions*****ADD THE FOLLOWING:***

"The Contractor shall submit all relevant test results of the tests stated above to the Engineer for approval, prior to any bituminous surfacing being applied to any section of road.

The Contractor shall supply a delivery sheet, as well as a bitumen sample (this sample of one litre minimum must be contained in a galvanised tin and properly cross-referenced) for every single batch of tar or bituminous product that is delivered to the site and shall issue the same to the Engineer.

The delivery sheet must state the product delivered to site, the name and address of the manufacturer as well as the compliance of the product to all relevant SANS specifications.

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Only after the Engineer has received the relevant information and approved it may the Contractor commence with the bituminous surfacing."

ADD THE FOLLOWING CLAUSES:

"B8118 TESTS ON RETRO-REFLECTIVE MATERIAL FOR USE ON ROAD SIGNS

On site testing of the retro-reflective properties of road signs shall be done with a field retro-reflectometer measuring at an entrance angle of 5,0° and an observation angle of 0,33°. The coefficient of retro-reflection so determined shall not be less than the relevant values given in Table B8118/1 below. The coefficients of retro-reflection are expressed in candelas per lux per square metre (cd/(lux/m²)).

TABLE B8118/1: CO-EFFICIENTS OF RETRO-REFLECTION

1	2	3	4	5	6	7	8	9	10	11
Class	Observation angle (degrees)	Entrance angle (degrees)	Coefficient of retro-reflection for different colours of material when measured with Standard Illuminant A* (cd/(lux/m ²)) minimum							
			Red	Orange	Yellow	Green	Blue	Purple	White	Brown
I	0,33	5	10	20	35	7	3	2	50	3
II	0,33	5	20	40	70	14	6	4	100	6
III	0,33	5	30	60	105	21	9	6	150	9

*See CIE Publication 15(E-1.3.1)

B8119 TEST PROCEDURE TO DETERMINE THE WET-DRY DURABILITY TEST FOR CEMENT-TREATED MATERIALS USING THE HAND BRUSHING METHOD**(a) 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 note B8119(e)(iii)).

(b) Apparatus

- A moisture curing room capable of maintaining a relative humidity of 95% to 100% and a temperature of 22 °C to 25 °C, or suitable plastic bags capable of holding specimens and carriers in an airtight condition in a water bath as described in B8119(b)(ii) below.
- A suitable water bath with thermostatic control capable of maintaining a temperature of 22 °C to 25 °C.
- A balance to weigh up to 10 kg, accurate to 0,5 g.
- A drying oven capable of maintaining temperatures of 71 ± 3 °C and 110 ± 5 °C.

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A wire scratch brush made of 50 mm by 1,6 mm 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 65 mm wooden block.

Method**Preparation of specimens**

Prepare specimens in accordance with the procedure described in the Appendix to method A 19 in the TMH1 with the following exceptions:

Use the material passing the 37,5 mm sieve and discard the material remaining on the sieve.

Use the apparatus and compaction method as described in SANS 3001-GR30 (Replacing TMH1 Method A7) (Modified AASHTO).

Curing of specimens

Cure the specimens 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. Alternatively, the specimens may be rapid cured (see note B8119(e)(v)).

Wetting, drying and brushing

After curing, remove the specimens from the curing room or plastic bags, allow to cool if necessary, 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 on all areas 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 B8119(e)(iv)).

The procedure described so far constitutes one cycle (48 hours) of the wet-dry durability test. After brushing the specimens are again submerged in water the procedure repeated for a total of 12 cycles (see note B8119 (e)(ii)).

Determination of soil-cement losses

After 12 cycles, dry the specimens to constant mass at 110 °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.

Calculations

Calculate the soil-cement loss of the specimens as a percentage of the original oven-dry mass of the specimens as follows:

$$= \frac{\quad - \quad}{\quad} \times 10$$

Where:

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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).

The percentage loss shall be calculated and reported to the nearest 0,1 per cent. These results are normally required for designing a mix and are reported graphically against relevant cement content.

Notes

Mass determination of the specimens before and after brushing are usually made at the end of each cycle during research or special investigations.

If it is 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 lay-over period.

The test was originally developed to determine the wet-dry durability of cement-treated material. It can, however, be used with equal success on material tested with other chemical stabilisers, for example lime, or mixes of lime and milled blastfurnace slag, or cement and milled blastfurnace slag.

The pressure is measured 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 1,36 kg.

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	Temp	Time
Agent	(°C)	(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"

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B8117 MEASUREMENT AND PAYMENT

REPLACE ITEM 81.02 WITH THE FOLLOWING:

"Item

Unit

B81.02 Other special tests requested by the Engineer:

(a) Cost of testing Provisional Sum (Prov Sum)

 Handling costs and profit in respect
 of subitem B81.02(a) above percentage (%)

The provisional sum provided to cover the cost of special tests as requested by the Engineer in terms of Clause 8115 shall be expended in accordance with the provisions of the General Conditions of Contract. Payment will not be made for any special test should the test indicate that the specifications have not been complied with.

The percentage tendered is a percentage of the amount spent under subitem B81.02(a), which shall include full compensation for the handling costs of the Contractor and the profit in connection with the tests requested by the Engineer.

The Contractor shall appoint a reputable company to perform the applicable tests with a field retro-reflectometer. This company is subject to the Engineer's approval and his approval must be obtained before any test results will be accepted."

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PART C: PROVISION OF THE TEMPORARY WORKFORCE**CONTENTS****C 01 SCOPE**

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

C 02 INTERPRETATIONSC 02.01 Supporting documents

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

C 02.02 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:

"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

"Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract

"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

"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

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

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

C 02.03 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.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**C 03 PERMITTED SOURCES OF TEMPORARY WORKERS**

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

C 04 EMPLOYMENT RECORDS TO BE PROVIDED

The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities 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.

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

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

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

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 recruitment and selection of workers to constitute the temporary workforce.

C 07.02 The Contractor shall advise the Engineer in writing of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognisance of the provisions of the Contract relating to training).

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C 07.03 The Contractor shall, at his own cost, take all necessary actions to advertise within the communities comprising the personnel resources, the fact that temporary employment opportunities exist and the time and place where recruiting will occur.

C 07.04 The Contractor shall record in writing, the details of all persons applying for employment, including *inter alia*:

Name, address, age and sex
Marital status and number of dependants
Qualifications and previous work experience (whether substantiated or not)
Period since last economically active
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:

No potential temporary worker shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless-

all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or

the Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.

Preference shall be given to the unemployed and single heads of households.

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.

The selection process shall not be prejudicial to youth (over the age of fifteen years) 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 07.08 The Contractor shall, after selecting his temporary workforce, arrange at his own cost for the appointment of the Liaison Officer as representative of the workforce to act on their behalf with regards to all matters pertaining to the workforce."

C 08 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

C 08.01 All temporary workers engaged in accordance with the provisions of Part A 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 the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.

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- C 08.02** The Contractor shall pay to all temporary workers engaged in terms of Part A of the Project Specifications, not less than the minimum rate of remuneration as specified in Part A – General Clause A17.2.

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 temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his Terms of Employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor in terms of Subclause C 09.02 above, by one member of the temporary workforce 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 Subclauses 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 PROJECT LIAISON OFFICER (PLO)

The Contractor or his appointed agent will appoint a Project Liaison Officer (PLO) after consultation with the local communities, the Engineer and the Employer. 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.

C 11.01 Duties of the Project Liaison Officer**The Community Liaison Officer's duties will be:**

To be available on site daily between the hours of 07:00 and 18:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 18:00 in the afternoon.

To determine, in consultation with the Contractor, the needs of the temporary labour for

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relevant skills training. He will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.

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.

To assist in and facilitate in the recruitment of suitable temporary labour and the establishment of a "labour desk".

To attend all meetings in which the community and/or labour are present or are required to be represented.

To assist in the identification, and screening of labourers from the community in accordance with the Contractor's requirements.

To inform temporary labour of their conditions of temporary employment and to inform temporary labourers as early as possible when their period of employment will be terminated.

To attend disciplinary proceedings to ensure that hearings are fair and reasonable.

To keep a daily written record of his interviews and community liaison.

To attend monthly site meetings to report on labour and RDP matters.

All such other duties as agreed upon between all parties concerned.

To submit monthly returns regarding community liaison in a format prescribed by the Engineer.

C 11.02 Payment for the project 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 PLO shall be determined jointly by the Contractor, Engineer and Employer.

C 11.03 Period of employment of the project liaison officer

The period of employment of the community liaison officer shall be as decided upon jointly by the Contractor, Engineer and Employer.

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PART D: PROVISION OF STRUCTURED TRAINING**CONTENTS****D 01 SCOPE**

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

Specified structured training to selected members of the workforce and small, medium and micro enterprises (SMME's) by an approved Training Service Provider as accepted by the Employer.

Additional training deemed necessary by the Contractor, to members of the workforce and small, medium and micro enterprises (SMME's).

D 02 INTERPRETATIONS**D 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.

02.02 Application

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

D 03 ENGINEERING SKILLS TRAINING

D 03.01 The Contractor shall, from the commencement of the contract, implement a structured training programme comprising of the training delivered by the selected subcontractor and any additional training as provided for by the Contractor, in which the various skills required for the execution and completion of the works are imparted to the workers, and where applicable, small, medium and micro enterprises engaged thereon, in a programmed and progressive manner. Selected workers shall be trained progressively throughout the duration of the contract in the various stages of a particular type of work.

D 03.02 The skills training programme to be implemented by the selected subcontractor shall comply with the following minimum standards:

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.

Be delivered by suitably qualified and experienced trainers accredited to do so.

D 03.03 The Contractor shall provide with his tender, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:

The name of the accredited training institution and programme

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The various aspects of each type of training comprised in the programme

The manner in which the training is to be delivered

The numbers and details of the trainers to be utilised.

D 03.04 The Contractor shall be responsible for the provision of the necessary items for the delivery of the specified and additional skills training programme, including the following:

Sufficient skilled, competent and accredited trainers to deliver the additional training programme to workers in accordance with the training programme

A suitably furnished venue

Transport of the workers as required

Tools, equipment, and teaching aids

Stationery and all other necessary materials.

D 03.05 Selection of candidates

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

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

Previous experience (if any)
Previous courses completed (if any)
Module specific requirements.

D 03.06 Duration of training

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

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

D 03.07 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 03.08 Both the selected subcontractor's and the Contractor's additional training programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer 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 03.09 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.

D 03.10 Workers shall be remunerated in respect of all time spent undergoing the specified training in terms of Clause D03.02, at the minimum specified wage as per BCCEI.

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D 03.11 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.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**D 04 GENERIC TRAINING**

- D 04.01 The Contractor shall, from the commencement of the contract, implement a structured progressive training programme comprising of the training delivered by the selected subcontractor and any additional training as provided for by the Contractor. Selected workers shall be trained progressively throughout the duration of the contract.
- D 04.02 The generic training programme is to be implemented by a training subcontractor to be nominated by the Engineer, upon the instruction of the Employer's Capex Programme Manager.
- D 04.03 The Contractor shall provide with his tender, full details of any additional recognised and in-house training viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:
- The name of the training institution and programme
 - The various aspects of each type of training comprised in the programme
 - The manner in which the training is to be delivered
 - The numbers and details of the trainers to be utilized.
- D 04.04 The Contractor shall be responsible for the provision of the necessary items for the delivery of the specified and additional generic training programme, including the following:
- A suitably furnished venue
 - Transport of the workers as required
 - Tools, equipment, and teaching aids
 - Stationery and all other necessary materials.
- D 04.05 All generic training shall take place outside of normal working hours.
- D 04.06 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 04.07 The Contractor shall keep comprehensive records of the training given to each worker involved in training and whenever required shall provide copies of such records to the Engineer. At the successful completion of each course provided by the Contractor each student shall be issued with a certificate indicating the course contents as proof of attendance and completion.
- D 04.08 No remuneration in respect of time spent undergoing training in terms of this Clause will be made to any of the workers.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**D 05 ENTREPRENEURIAL SKILLS TRAINING**

- D 05.01 Training needs assessments of the Contractor and his 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 be identified in personnel both in the permanent employ of the Contractor and/or his sub-contractors, as well as temporary employees thereof.
- D 05.02 Once the 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 nominated by the Engineer, upon the instruction of the Employer's Capex Programme Manager.
- D 05.03 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 05.04 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 structured training.
- D 05.05 Following completion of the structured training, members of small, medium and micro contractors/subcontractors that have demonstrated understanding of and competence in the training material are to be appropriately certified by the accrediting body.
- D 05.06 The Contractor shall provide with his tender, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:
- The name of the training institution and programme
 - The various aspects of each type of training comprised in the programme
 - The manner in which the training is to be delivered
 - The numbers and details of the trainers to be utilized.
- D 05.07 The Contractor shall be responsible for the provision of the necessary items for the delivery of the entrepreneurial training programme, including the following:
- A suitably furnished venue
 - Transport of the subcontractors as required
 - Tools, equipment, and teaching aids
 - Stationery and all other necessary materials.
- D 05.08 All specified entrepreneurial training shall take place within normal working hours.
- D 05.09 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 05.10 The Contractor shall keep comprehensive records 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 05.11 No remuneration in respect of time spent undergoing specified training in terms of this Clause will be made to any of the subcontractors.

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D 06 MEASUREMENT AND PAYMENT**D 06.01 Basic principles****(a) General**

Measurement and payment for all work executed in terms of this contract shall be measured and paid for in accordance with the principles set out in Clause D 06.02 of the project specifications, irrespective of whether the work is executed as an integral part of the provision of training in terms of this specification.

b) Training

The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the selected subcontractors 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.

D 06.02 Scheduled items

Payment items are included in the Bill of Quantities under Section 1200 for the provision of the specified training by selected subcontractors only. 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.

Item	Unit
D 06.03 Training:	
(a) Engineering (technical) skills	Provisional Sum
(b) Generic skills	Provisional Sum
(c) Training venue	Provisional sum
Contractor's handling costs, profit and all other charges in respect of subitems D 06.03(a),(b) and (c):	
(i) Technical skills	percentage (%)
(ii) Generic skills	percentage (%)
(iii) Training venue	percentage (%)
Training allowance paid to targeted labour i.r.o. formal training(equal to pay for 1 day of task)	person days
Extra over (e) for the administration of payment of training allowances to targeted labour.	person days
Transport and accommodation of workers for training where it is not possible to undertake the training in close proximity of the site.	Provisional Sum

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Contractor's handling costs, profit and all other charges

in respect of subitem (g) percentage (%)

Payment under subitems D 06.03(a) and (b) shall be the amounts actually paid to the training institutions and shall be made in accordance with the provisions of the General Conditions of Contract.

The provisional sum for subitem D 06.03 (c) shall include full compensation for the provision of a suitable training venue, for all necessary lighting, furniture, stationery, consumables and study material, and for transportation of the workers to and from the training venue. Payment of the provisional sum shall be made in accordance with the provisions of the General Conditions of Contract:

The percentages tendered for subitem D 06.03 (d) shall be the percentages of the amounts actually reimbursed to the Contractor under subitems D 06.03 (a), (b) and (c) and shall be in full and final compensation in respect of the Contractor's handling costs, profit, mentoring, record keeping, reporting and all other charges in connection with providing the services.

Payment under subitem D 06.03 (e) shall be the actual sum paid to workers undergoing training. The Contractor will be reimbursed directly for his administrative costs under subitem D 06.03 (f).

Payment under subitems D 06.03(g) shall be the amount actually paid for transporting the labourers to the training venue and shall be made in accordance with the provisions of the General Conditions of Contract.

The percentages tendered for subitem D 06.03 (h) shall be the percentage of the amount actually reimbursed to the Contractor under subitem D 06.03 (g) and shall be in full and final compensation in respect of the Contractor's handling costs, profit and all other charges in connection with providing the transport.

CONSTRUCTION OF MADEIRA ACCESS ROAD

PART E: HIV/AIDS SPECIFICATION**CONTENTS****E 01 SCOPE**

- E 01.01 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:
- E 01.02 Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, 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 counselling, the diagnosis and treatment of Sexually Transmitted Infections, and the closest health service providers.
- E 01.03 Informing Workers of their rights with regard to HIV/AIDS in the workplace.
- E 01.04 Providing Workers with access to condoms and other awareness material that will enable construction Workers to make informed decisions about sexual practices.

E 02 DEFINITIONS AND ABBREVIATIONS**E 02.01 Definitions**

Service Provider:	The natural or juristic person recognized and approved by the Department of Public Works and Roads as a specialist in conducting HIV/AIDS awareness programmers.
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.

2) E 02.02 Abbreviations

HIV	: Human Immunodeficiency Virus.
AIDS	: Acquired Immune Deficiency Syndrome.
STI	: Sexually Transmitted Infection.

CONSTRUCTION OF MADEIRA ACCESS ROAD**E 03 BASIC METHOD REQUIREMENT**

- E 03.01 The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers.
- E 03.02 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.

E 03.03 The Service Provider Workshop Plan shall address, but will not be limited to the following:

The nature of the disease;
How it is transmitted;
Safe sexual behaviour;
Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
Attitudes towards other people with HIV/AIDS;
Rights of the Worker in the workplace;
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;
How the Service Provider will support the awareness champion;
Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
How the workshops will be presented, including frequency and duration;
How the workshops will fit in with the construction programme;
How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
How the video will be used;
How the Service Provider will elicit maximum participation from the Workers;
A questions and answers slot (interactive session).

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated

E 04 HIV/AIDS AWARENESS EDUCATION AND TRAINING**E 04.01 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.

CONSTRUCTION OF MADEIRA ACCESS ROAD**E 04.02 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:

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:

- Define and describe HIV and AIDS
- List and describe the progression of HIV/AIDS

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:

- Record in what bodily fluids you will find the HI virus.
- Describe how HIV/AIDS can be transmitted.
- Demonstrate your ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS.

UNIT 3: HIV/AIDS preventative measures

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After studying and understanding this unit the Worker will comprehend how to act in a way that would minimize the risk of HIV/AIDS infection and to use measures to prevent the HI virus to enter the blood stream.

Assessment Criteria:

- Report on how you could minimize your risk of HIV/AIDS infection.
- Report on precautions that can be taken to prevent HIV/AIDS infection.
- Explain or demonstrate how to use a male and female condom.
- List of factors that could jeopardize the safety condoms provide against HIV/AIDS transmission.

UNIT 4: Voluntary HIV/AIDS counselling and testing

After studying and understanding this unit the Worker will be able to recognize 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 counselling.

Assessment Criteria:

- Describe kinds of testing for HIV/AIDS infection.
- Report on why voluntary testing is important.
- Report on why pre- and post-test counselling is important.

UNIT 5: Living with HIV/AIDS

After studying and understanding this unit the Worker will be able to recognize the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS.

Assessment Criteria:

- List and describe ways to manage HIV/AIDS.
- Describe nutritional needs of people living with HIV/AIDS.
- Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS.
- Explain the need of counselling and support to people living with HIV/AIDS.

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:

- Discuss anti-retroviral therapy
- List methods of treatment to prevent HIV/AIDS transmission from mother-to-child.
- Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS.
- Describe post exposure prophylactics.

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:

- Discuss the rights of a person living with HIV/AIDS in the workplace.
- Discuss the responsibilities of a person living with HIV/AIDS in the workplace.

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Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important.

E04.03 Displaying of plastic laminated posters and distribution of information booklets

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.

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's.

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.

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.

The posters on display should always be intact, clear and readable.

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.

CONSTRUCTION OF MADEIRA ACCESS ROAD**E05 PROVIDING WORKERS WITH ACCESS TO CONDOMS**

- E05.01 The Contractor shall provide and maintain condom dispensers and make both male and female condoms complying with the requirements of SANS 4074:2003 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.
- E05.02 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.
- E05.03 Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

E06 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

- E06.01 The Contractor shall provide the Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling 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.

E07 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

- E07.01 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:

- Liaising with the Service Provider on organising awareness workshops;
- Filling condom dispensers and monitoring condom distribution;
- Handing out information booklets;
- Placing and maintaining posters

E08 MONITORING

- E08.01 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.
- E08.02 The Representative/Agent shall conduct the site visits with the least possible disruption to the Contractor's daily routine.
- E 08.03 Contractors must report problems that they experience in implementing the HIV/AIDS requirements to the Representative/Agent.
- E 08.04 A SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent.

CONSTRUCTION OF MADEIRA ACCESS ROAD

- E08.05 A SERVICE PROVIDER REPORT (SCHEDULE B) shall be completed and submitted on a monthly basis to the Department’s Project Manager through the Representative/Agent.
- E08.06 The Contractor shall, at the end of the contract, complete and submit a close out programme report CONTRACTOR HIV/AIDS PROGRAMME REPORT (SCHEDULE C).

E09 MEASUREMENT AND PAYMENTS

- E09.01 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 Bill of Quantities. Provision for pricing of HIV/AIDS awareness must be made under Item E10.01 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.
- E09.02 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
E10.01 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 E10.01 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.

CONSTRUCTION OF MADEIRA ACCESS ROAD

PART F: GENERIC LABOUR-INTENSIVE SPECIFICATION

CONTENTS

F 01 SCOPE

This specification establishes general requirements for activities, which are to be, executed by hand involving the following:

- trenches having a depth of less than 1.5 metres
- storm water drainage
- low-volume roads and sidewalks

F 02 PRECEDENCE

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

F 03 HAND EXCAVATEABLE MATERIAL

Hand excavatable material is material:

Granular materials:

Whose consistency when profiled may in terms of Table 1 be classified as very loose, loose, medium dense, or dense; or

Where the material is gravel having a maximum particle size of 10 mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Cohesive materials:

whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or

where the material is gravel having a maximum particle size of 10 mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100 mm;

Note: (1) A boulder, a cobble and gravel is material with a particle size greater than 200 mm, between 60 and 200 mm.

A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg, which falls through a height of 400 mm and drives a cone having a maximum diameter of 20 mm (cone angle of 60° with respect to the horizontal) into the material being used.

CONSTRUCTION OF MADEIRA ACCESS ROAD

Table 1: Consistency of materials when profiled

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by thumbnail; slight indentation produced by pushing geological picks point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumbnail with difficulty; slight indentation produced by blow of a geological pick point.

F 04 LABOUR INTENSIVE WORKS

Trench excavation

All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100 mm. Each layer shall be compacted using hand tampers

To 90% Proctor density;

Such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders; or

Such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation

All hand excavatable material including topsoil classified, as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

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The excavation of any material, which presents the possibility of danger or injury to workers, shall not be excavated by hand.

Clearing and grubbing

Grass and small bushes shall be cleared by hand.

Shaping

All shaping shall be undertaken by hand.

Loading

All loading shall be done by hand, regardless of the method of haulage.

Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage

Spreading

All material shall be spread by hand.

Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved.

Grassing

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

Grout shall be mixed and placed by hand.

Manufactured Elements

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, pre-cast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320 kg. In addition, the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper handhold on them.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C3.3 PARTICULAR SPECIFICATIONS

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

SECTION EMP	ENVIRONMENTAL MANAGEMENT SPECIFICATION
SECTION DWK	DAY WORKS
SECTION OHS	OHS 1993 SAFETY SPECIFICATION

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SECTION EMP: ENVIRONMENTAL MANAGEMENT SPECIFICATION**EMP.1 General**

In order to ensure that the construction works is carried out in an environmentally sensitive matter, strict compliance to the Environmental Management Plan (EMP) guidelines is required. The EMP is bounded to this document under Part C4: **Site Information**. The purpose of the EMP is to:

Encourage good management practices through planning and commitment to environmental issues,
Provide rational and practical environmental guidelines to:

- Minimize disturbance of the natural environment,
- Prevent pollution of land, air and water,
- Prevent soil erosion and facilitate re-vegetation.

Adopt the best practicable means available to prevent or minimize adverse environmental impact,
Develop waste management practices based on prevention, minimization, recycling, treatment or disposal of wastes,
Train employees and contractors with regard to environmental obligations.

EMP.2 Training and Induction of Employees

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

EMP.3 Complaints Register and Environmental Incident Book

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

The following information must be recorded:

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

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

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

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

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

EMP.4 Site Cleanliness and Neatness

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

EMP.5 Access

Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.
Access roads utilised by the Contractor must be maintained in good condition.

EMP.6 Borrow Pits

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

EMP.7 Dust Control / Air Quality

Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.

- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
Special care must be taken in areas where the route passes close to schools and residential areas.
The speed of construction vehicles must be reduced.

EMP.8 Fauna

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

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EMP.9 Fire Prevention and Control

Smoking is prohibited in the vicinity of flammable substances.

The contractor must ensure that fire-fighting equipment is available on site, particularly where flammable substances are being stored or used, and that construction staff are aware of where it is kept and how it is operated.

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

EMP.10 Grave Sites

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

EMP.11 Materials Handling and Spills Management

Any hazardous materials to be used during construction (e.g. lime, fuel, paint, etc) are to be stored in a designated area at the campsite.

The storage containers/facilities (including any diesel/petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that accidental spillage does not pollute the environment.

Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.

Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other chemicals.

Any spill of potentially hazardous materials must be cleaned up immediately (Potentially hazardous materials on site include paint, oil, grease, fuel, turpentine, etc).

The area of contaminated soil or spill must be deposited into the hazardous waste container(s).

The contractor should keep Peat, Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.

All spills are to be recorded in the environmental incident book.

EMP.12 Noise

Noise generating activities must be restricted to between 07:00 and 17:00 Monday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.

All equipment, vehicles and machinery must be in good working condition and be equipped with sound mufflers if necessary.

Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

EMP.13 Pollution Control

Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.

All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

EMP.14 Rivers and Streams

During construction of bridge structures, there must be no obstruction of the water flow of rivers and streams.
Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
Erosion control measures must be employed both during and after construction.
No impediments to natural surface water flow, other than approved erosion control measures, must occur.

EMP.15 Safety

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

EMP.16 Soil Management

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

EMP.17 Worker Conduct**Code of Conduct for Construction Personnel:**

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

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EMP.18 Traffic Disturbances and Diversions

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

EMP.19 Vegetation

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

EMP.20 Waste Management

All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
The contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.
No disposal, or leakage, of sewage must occur on or near the site.
All hazardous waste (e.g. oil, paint, empty lime bags, contaminated wash water, etc) must be stored in leak proof containers and disposed of at a registered hazardous waste disposal site.
The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimize the occurrence of littering.
Concrete rubble must be collected and disposed of as directed by the Project Manager.
Each working area must be cleared of litter and building waste (e.g. rubble, wood, concrete packets etc) on completion of the day's work.
Any spill around the container(s) should be treated as per Section EMP11 and EMP16.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SECTION DWK: DAY WORKS

This part of the Project Specifications deals with the provision for Day works in the Schedule of Quantities. Rates for Day works shall be entered in Section 1800 of the Schedule of Quantities in accordance with the following specifications.

DWK. 1 SCOPE

According to clause 37.2 of the General Conditions of Contract for construction works (GCC) 2010 edition, certain work may be carried out using rates tendered in the day work schedule. A schedule of personnel, plant and equipment which may be necessary to perform work on a day work basis is included in the schedule of quantities. The quantities used in the schedule are for tender evaluation purposes only and the use or not of these items shall not constitute a variation in terms of Clause 37 of the General Conditions of Contract 2010 edition.

No work will be paid for as Day works without the written instruction or approval of the Engineer.

DWK. 2 TYPE OF WORK

The Engineer may order day work in certain cases where it is necessary to vary or to extend the works due to new or unforeseen circumstances to such an extent that the tendered rates for specific items of work are no longer applicable, or where no suitable combination of tendered rates can be used to pay for such work.

As a general rule, applicable rates for additional work items will be agreed between the Contractor and the Engineer. Day works will only be used in exceptional circumstances.

DWK. 3 MATERIALS

Materials for use in works carried out under Day work shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in Section 1800 for Day work materials. The Contractor shall enter a tendered percentage in the schedule to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in the Pricing Data. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in Day works with his day works claim to the Engineer. Further, if specific materials are required for Day works, quotations will be called for as per Clause 37.2.4 of the General Conditions of Contract 2010 edition.

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DWK. 4 CONSTRUCTION PLANT HIRE

Where daywork is ordered, the tendered rates for plant hire in Section 1800 shall be used in calculating the payment due for any plant required to execute the daywork. If no rate is included in the schedule for a particular piece of equipment, and where no other rate or combination of rates would provide suitable compensation, then the daywork method of payment described in Clause 37.2.3 of the General Conditions of Contract 2010 edition will be used.

The tendered rates for each item of constructional plant shall include for all operating costs associated with the said item of plant. Such costs are deemed to include fuel, re-fuelling costs, lubrication and routine servicing / maintenance, breakdowns and spares, all overhead costs, site management costs and administration costs. The tendered rates shall also include the plant operator and the general supervision of the plant while it is engaged in the day works.

DWK. 5 SALARIES AND WAGES OF WORKMEN

The salaries and wages of workmen executing daywork shall be paid for using the tendered rates in Section 1800. The tendered rates shall include for all costs associated with the employment of personnel, including salaries, wages, allowances, workmen's compensation, medical aid and pension contributions, government levies and taxes, training costs and any costs associated with living on the site. The tendered rates shall also include for the transportation of the workmen to the site of the day works.

All overhead costs, administration costs, site management costs and the Contractor's profit are deemed to be covered by the DAY WORKS rates and no additions or mark ups will be made to the tendered rates.

The tendered rates shall also include any hand tools normally associated with the workmen's job description e.g. picks, shovels, hammers, saws, spirit levels, etc. The tendered rate for labourers shall also include for the casual supervision by a gang boss or foreman. Only when specifically called for by the Engineer, will payment be made for the use of a gang boss or foreman supervising on a continuous basis.

DWK. 6 MEASUREMENT AND PAYMENT

The following principles shall also apply to the measurement and payment of day works.

The unit of measurement for plant shall be the number of vibroclock hours worked and each item of plant shall be fitted with a vibroclock, the cost of which shall be included in the rates. Excessive non-productive time when the engine is idling will not be paid for. Where there is ambiguity between the flywheel horsepower and mass of the machine, the flywheel horsepower shall govern the measurement category. Where width and mass are specified, mass shall govern the measurement category.

The Contractor's attention is drawn to the requirements of Sub-clauses 37.2.5 and 37.2.6 of the General Condition of Contract 2010 edition with regard to the submission of day works claims.

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PART C5ANNEXURES

(For Information Purposes Only)

SECTION CONTENTS

C5.1 Annex I - Environmental Management Plan

**C5.2 Annex II - Abstracts of the Mine Health and Safety Act No. 29 of 1996 and
Amendment Act No. 72 of 1997**

C5.3 Annex III - Borrow Pit Guarantee

C5.4 Annex IV - Health and Safety Specification

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C5.1 PART G: Annex I ENVIRONMENTAL MANAGEMENT PLAN**CONTENTS****G 01 SCOPE**

This environmental management programme (EMP) sets out the methods by which proper environmental controls are to be implemented by the Contractor. The duration over which the Contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the defects liability period.

The provisions of this EMP are binding on the Contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the Employer in writing for approval.

The EMP identifies the following:

Construction activities that will impact on the environment. Specifications with which the Contractor shall comply in order to protect the environment from the identified impacts. Actions that shall be taken in the event of non-compliance.

G 02 DEFINITIONS

Alien Vegetation: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

Construction Activity: a construction activity is any action taken by the Contractor, his subcontractors, suppliers or personnel during the construction process as defined in the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7, 1998)

Environment: environment means the surroundings within which humans exist and that could be made up of:

- the land, water and atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of (i) and (ii) and the interrelationships among and between them; and
- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Aspect: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

Environmental Impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

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Record of Decision: a record of decision is a written statement from the National Department of Environmental Affairs and Tourism, (NDEAT), that records its approval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

Road Reserve: the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

Road Width: for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that are affected by the continuous presence of the road, e.g. a reach of a water course.

Listed in the table below are some of the references in the COLTO Standard Specifications to environmental related issues.

Description	Reference
Establishment of site offices	1302(a), 1402(e).
Vegetation	5801(b), 5802(b), (c), (d), and (e), 5804, 5805, 5806 and 5807.
Rehabilitation	1302(a) and Sections 5800 and 5900 of the Standard and Project Specifications
Sewage treatment	1402(g) and 1404(a) and Part B of the Project Specifications, clause B1302(a).
Litter	1302(b).
Removal of solid waste	1404(a).
Soil management	3104(a), 5802(a), (g), 5804(a), (b), and (c).
Borrow/Quarry material	3100. (The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities.)
Discovery of archaeological sites, artefacts or graves	Clause 4.7 of the GCC 2015 General Conditions of Contract.
Graves	
Stockpiled material	3202 and 4306.
Pollution prevention	Sub clause 8.1.2 of the GCC 2015 General Conditions of Contract.

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G 03 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The Contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- waste generation
- stormwater discharge
- emission of pollutants into the atmosphere
- chemical use operations
- energy use operations
- water use operations
- use of natural resources
- noise generation

Thereafter the Contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the Contractor shall provide plans and measures for the Engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The Contractor shall demonstrate that he/she is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to sub clause 5.6 of the general conditions of contract and clause B1204 of these project specifications.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

- Pollution of atmosphere, soil or water
- Destruction or removal of fauna and flora and effect on biological diversity
- Deformation of the landscapes oil erosion
- Destruction of historical/heritage sites
- Effect on the built environment
- Effect on agricultural land and wetlands

General good construction practice will play an important role in avoiding the occurrence of an Impact. The Contractor's attention is drawn, in this regard, to G 08. Environmental Management of Construction Activities.

G 04 LEGAL REQUIREMENTS**G04.01 General**

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the Contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The Contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

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G04.02 Statutory and other applicable legislation

The Contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

G 05 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS**G 05.01 Appointment of a Designated Environmental Officer (DEO)**

For the purposes of implementing the conditions contained herein, the Contractor shall submit to the Engineer for approval the appointment of a nominated representative of the Contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the Engineer to make a decision. The Engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the Contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The Engineer will be responsible for issuing instructions to the Contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the Engineer, but not less frequently than once a month.

The Engineer shall have the authority to instruct the Contractor to replace the DEO if, in the Engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required. There shall be an approved DEO on the site at all times.

G 05.02 Administration

Before the Contractor begins each construction activity the DEO shall give to the Engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.
- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.
- The Contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the Engineer whenever there is a change or variation to the original.

The Engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the Contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the Contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

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G 05.03 Good Housekeeping

The Contractor shall undertake "good housekeeping" practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridges. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

G 06 TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The Contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff, the Contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the Contractor shall inform the Engineer when and how he/she intends concluding his environmental training obligations.

G 07 ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in Table 1: Aspects or Activities that Cause Environmental Impacts during Construction Activities, which is to be found at the end of this part. This list is not exhaustive, and shall be used for guideline purposes only.

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G 08 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES**G 08.01 Site Establishment****G 08.01.01 Site Plan**

The Contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the Contractor shall submit to the Engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the Contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the Contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the Engineer for consultation during rehabilitation of the site. Read with COLTO Specification 1302(a), 1402(e).

G 08.01.02 Vegetation

The Contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the Engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the Engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. (Read in conjunction with COLTO Specification 5801(b), 5802(b), (c), (d) and (e), 5804, 5805, 5806 and 5807). Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

G 08.01.03 Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

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G 08.01.04 Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp/office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc.). Only domestic type wastewater shall be allowed to enter this drain.

G 08.01.05 Heating and Cooking fuel

The Contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

G 08.02 Sewage treatment (impose penalties on solid waste non-conformance)

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-away, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the Engineer. Read with COLTO Specifications 1402(g) and 1404(a).

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed. Monthly proof of safe disposal must be filed on site by the contractor.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The Contractor shall arrange for regular emptying of toilets and 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.

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G 08.03 Waste Management

The Contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

Monthly proof of safe disposal for all waste must be filed on site.

Waste disposal

Suitable covered receptacles shall be available at all times and conveniently placed for the disposal of waste.

All used oils, grease or hydraulic fluids shall be placed therein and these receptacles will be removed from the site on a regular basis for disposal at a registered or licensed disposal facility.

All spills should be cleaned up immediately to the satisfaction of the ECO by removing the spillage together with the polluted soil and by disposing of them at a recognised facility.

G 08.03.01 Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the Engineer. Disposal of solid waste shall be at a DWS licensed landfill site or at a site approved by DWS in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site. Read with COLTO Specification 1404(a).

G 08.03.02 Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work, the Contractor shall provide litter collection facilities for later safe disposal at approved sites. (Read with COLTO Specification 1302(b)).

G 08.03.03 Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a DWS approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the Engineer.

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G 08.04 Control at the workshop

The Contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop)

G 08.04.01 Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the Contractor to, and used or worn by, the staff whose duty it is to manage and maintain the Contractor's and his subcontractor's and supplier's plant, machinery and equipment.

G 08.04.02 Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the Engineer.

The Contractor shall provide proof to the Engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the Contractor shall furnish the Engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

G 08.04.03 Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. An adequate bund walls, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

G 08.04.04 Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

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G 08.05 Clearing the Site

In all areas where the Contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the Engineer for his approval. Contractor to communicate with an appointed ECO before clearing any area on site.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the Engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The Contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the defects liability period.

G 08.06 Soil Management**G 08.06.01 Topsoil**

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water and Sanitation waste disposal site. (Read with COLTO Specifications 3104(a), 5802(a), (g), 5804(a), (b) and (c)). The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The Contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the Engineer. The Contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

G 08.06.02 Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the Engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

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G 08.07 Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The Contractor shall submit to the Engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

G 08.08 Earthworks and Layer works

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the Contractor shall have complied with the requirements of sections G 08.05 and G 08.07. In addition, the Contractor shall take cognisance of the requirements set out below.

G 08.08.01 Quarries and borrow pits

The Contractor's attention is drawn to the requirement of the Department of Minerals and Energy, that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the Contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the Contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities. (Read with COLTO Specification 3100 and 3200). An approval from DMR with all the conditions which need to be adhered to by the contractor will be given to the appointed contractor.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01**Demarcating the Borrow pit/Quarrying Area**

The mining/Quarrying area must be clearly demarcated by means of beacons at its corners, and along its boundaries if there is no visibility between the corner beacons. Permanent beacons as indicated on the layout plan or as prescribed must be firmly erected and maintained in their correct position throughout the life of the operation. Mining/ Quarrying and resultant operations shall only take place within this demarcated area.

RESTRICTIONS ON MINING/Quarrying Area

On assessment of the application, the Regional Manager may prohibit the conducting of mining or Quarrying operations in vegetated areas or over portions of these areas. In the case of areas that are excluded from mining, no operations shall be conducted within 5 m of these areas.

RESPONSIBILITY

The environment affected by the mining operations shall be rehabilitated by the holder, as far as is practicable, to its natural state or to a predetermined and agreed to standard or land use which conforms with the concept of sustainable development. The affected environment shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals and that will not pollute the environment or lead to the degradation thereof.

It is the responsibility of the holder of the mining permit to ensure that the manager on the site and the employees are capable of complying with all the statutory requirements which must be met in order to mine, which includes the implementation of this EMP.

Maintenance of access roads

In the case of dual or multiple use of access roads by other users, arrangements for multiple responsibility must be made with the other users. If not, the maintenance of access roads will be the responsibility of the holder of the mining permit/ prospecting right.

Newly constructed access roads shall be adequately maintained so as to minimise dust, erosion or undue surface damage.

Dust control on the access and haul roads

The liberation of dust into the surrounding environment shall be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. The speed of haul trucks and other vehicles must be strictly controlled to avoid dangerous conditions; excessive dust or excessive deterioration of the road being used.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Rehabilitation of access roads

Whenever a mining permit is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the permit or right, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.

Any gate or fence erected by the holder which is not required by the landowner/tenant, shall be removed and the situation restored to the pre-mining/ prospecting situation.

Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.

Toilet facilities, waste water and refuse disposal

As a minimum requirement, the holder of a mining permit shall, at least, provide pit latrines for employees and proper hygiene measures shall be established.

Chemical toilet facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution.

The use of existing facilities must take place in consultation with the landowner/tenant.

In cases where facilities are linked to existing sewerage structures, all necessary regulatory requirements concerning construction and maintenance should be adhered to.

LIMITATIONS ON BORROW PITS AND QUARRYING AREA

The mining of shall take place only within the approved demarcated mining or prospecting area.

Mining may be limited to the areas indicated on assessment.

The holder of the mining permit/ shall ensure that operations take place only in the demarcated areas.

G 08.08.02 Excavation, hauling and placement

The Contractor shall provide the Engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The Contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity. (Read with COLTO Standard Specification clauses 1217 and 3309)

G 08.08.03 Spoil sites

The Contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects liability period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the Engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the Engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The Engineer will assist the Contractor in obtaining the necessary approval if requested by the Contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the Contractor. This will include both strip and full sodding. The Contractor may motivate to the Engineer for other acceptable stabilising methods. The Engineer may only approve a completed spoil site at the end of the defects liability period upon receipt from the Contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability (Read with COLTO standard Specifications clause 1214). The Contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

G 08.08.04 Stockpiles

The Contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the Engineer for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the Contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact;
- Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the Contractor's cost until clearance from the Engineer and the relevant Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the Engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in-situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the Engineer. In all cases, the Engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated. (Read with COLTO Specification 3203 and 4306).

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

G 08.08.05 Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the Contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the Contractor shall, prior to any drilling of holes in preparation for blasting, supply the Engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The Contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the Contractor from his responsibilities in this regard. The Contractor shall also indicate to the Engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

G 08.09 Batching sites

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the Contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are sited.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relative authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section G 08.08.03, with the exception that the Contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the Contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The Engineer will assist the Contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the Engineer for approval. The Contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

G 08.10 Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the Contractor shall be liable to arrange for professional service providers to clear the affected area.

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Responsibility for spill treatment lies with the Contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the Engineer. The Designated Environmental Officer will assess the situation in consultation with the Engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the Contractor in consultation with the DEO and the Engineer. Areas cleared of hazardous waste shall be re-vegetated according to the Engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the Engineer. The costs of containment and rehabilitation shall be for the Contractor's account, including the costs of specialist input.

G 08.11 Areas of Specific Importance

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The Contractor may offer alternative solutions to the Engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

G 08.11.01 Archaeological Sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Engineer of such discovery. The National Monuments Council is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with Sub clause 4.7.1 of the General Conditions of Contract).

G 08.11.02 Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the Engineer informed of the discovery. The National Monuments Council should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the National Monuments Council, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred. (Read with Sub clause 4.7.1 of the General Conditions of Contract).

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G 08.12 Noise Control

The Contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

G 08.13 Dust Control

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

G 08.14 Alien Vegetation

The Contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the defects liability period.

G 09 RECORD KEEPING

The Engineer and the DEO will continuously monitor the Contractor's adherence to the approved impact prevention procedures and the Engineer shall issue to the Contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the Engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the Employer or relevant environmental departments.

G 10 COMPLIANCE AND PENALTIES

The Contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

The following penalties shall apply for environmental violations:

G10.01 Unnecessary removal or damage to trees:

- | | |
|--|------------------|
| • 2600mm girth or less: | R5 000 per tree |
| • Greater than 2600mm, but less than 6180mm girth: | R10 000 per tree |
| • Greater than 6180mm girth: | R30 000 per tree |

G 10.02 Serious violations:

- | | |
|--|------------------------------|
| • Hazardous chemical/oil spill and/or dumping in non-approved sites: | R10 000 per incident |
| • General damage to sensitive environments: | R5 000 per incident |
| • Damage to cultural and historical sites: | R5 000 per incident |
| • Uncontrolled/unmanaged erosion (plus rehabilitation at the Contractor's cost): | R1 000 to R5000 per incident |
| • Unauthorised blasting activities: | R5000 per incident |
| • Pollution of water sources: | R10000 per incident |

The Engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final.

G 10.03 Less serious violations:

- | | |
|---|---------------------|
| • Littering on site: | R1 000 per incident |
| • Lighting of illegal fires on site: | R1 000 per incident |
| • Persistent or un-repaired fuel and oil leaks: | R1 000 per incident |
| • Excess dust or excess noise emanating from site: | R1 000 per incident |
| • Dumping of milled material in side drains or on grassed areas: | R1 000 per incident |
| • Possession or use of intoxicating substances on site: | R500 per incident |
| • Any vehicles being driven in excess of designated speed limits: | R500 per incident |
| • Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife: | R2 000 per incident |
| • Illegal hunting: | R2 000 per incident |
| • Urination and defecation anywhere except in designated areas: | R500 per incident |

The Engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. 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.

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G 11 MEASUREMENT AND PAYMENT**Item****Unit****G 11.01 Penalty for unnecessary removal or damage to trees for the following diameter sizes:**

- (a) 2600mm girth or less number (No)
 (b) Greater than 2600mm, but less than 6180mm girth number (No)
 (c) Greater than 6180mm girth number (No)

The unit of measurement shall be the number of trees by diameter size removed unnecessary or damaged. The penalty rates applied shall be those stated in clause G 10.01.

Item**Unit****G 11.02 Penalty for serious violations:**

- Hazardous chemical/oil spill and/or dumping in non-approved sites number (No)
 (b) General damage to sensitive environments number (No)
 (c) Damage to cultural and historical sites number (No)
 (d) Pollution of water sources number (No)
 (e) Unauthorised blasting activities number (No)
 Uncontrolled/unmanaged erosion per incident, depending on environment impacts, plus rehabilitation at the Contractor's cost) number (No)

The unit of measurement for G 11.02(a) to (f) shall be the number of serious violation incidents.

The penalty rates to be applied shall be those stated in clause G 10.02.

The relevant sections of Mineral and Petroleum Resources Development Act and its supporting Regulations are summarised below for the information of applicants. The onus is on the applicant to familiarise him/herself with the provisions of the full version of the Mineral and Petroleum Resources Development Act and its Regulations.

Section of Act	Legislated Activity/ Instruction/ Responsibility or failure to comply	Penalty in terms of Section 99
5(4)	No person may prospect, mine, or undertake reconnaissance operations or any other activity without an approved EMP, right, permit or permission or without notifying land owner	R100 000 or two years imprisonment or both
19	Holder of a Prospecting right must: lodge right with Mining Titles Office within 30 days; commence with prospecting within 120 days, comply with terms and conditions of prospecting right, continuously and actively conduct prospecting operations; comply with requirements of approved EMP, pay prospecting fees and royalties	R100 000 or two years imprisonment or both
20(2)	Holder of prospecting right must obtain Minister's permission to remove any mineral or bulk samples	R100 000 or two years imprisonment or both
26(3)	A person who intends to beneficiate any mineral mined in SA outside the borders of SA may only do so after notifying the Minister in writing and after consultation with the Minister.	R500 000 for each day of contravention
28	Holder of a mining right or permit must keep records of operations and financial records AND must submit to the DG: monthly returns, annual financial report and a report detailing compliance with social & labour plan and charter	R100 000 or two years imprisonment or both

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

29	Minister may direct owner of land or holder/applicant of permit/right to submit data or information	R10 000
38(1)(c)	Holder of permission/permit/right MUST manage environmental impacts according to EMP and as ongoing part of the operations	R500 000 or ten years imprisonment or both.
42(1)	Residue stockpiles must be managed in prescribed manner on a site demarcated in the EMP	A fine or imprisonment of up to six months or both
42(2)	No person may temporarily or permanently deposit residue on any other site than that demarcated and indicated in the EMP	A fine or imprisonment of up to six months or both
44	When any permit/right/permission lapses, the holder may not remove or demolish buildings, which may not be demolished in terms of any other law, which has been identified by the Minister or which is to be retained by agreement with the landowner.	Penalty that may be imposed by Magistrate's Court for similar offence
92	Authorised persons may enter mining sites and require holder of permit to produce documents/ reports/ or any material deemed necessary for inspection	Penalty as may be imposed for perjury
94	No person may obstruct or hinder an authorised person in the performance of their duties or powers under the Act.	Penalty as may be imposed for perjury
95	Holder of a permit/right may not subject employees to occupational detriment on account of employee disclosing evidence or information to authorised person (official)	Penalty as may be imposed for perjury
All sections	Inaccurate, incorrect or misleading information	A fine or imprisonment of up to six months or both
All sections	Failure to comply with any directive, notice, suspension, order, instruction, or condition issued	A fine or imprisonment of up to six months or both

Item**Unit****G 11.03 Penalty for less serious violations:**

- (a) Littering on site number (No)
- (b) Lighting of illegal fires on site number (No)
- (c) Persistent or un-repaired fuel and oil leaks number (No)
- (d) Excess dust or excess noise emanating from site number (No)
- (e) Dumping of milled material in side drains or on grassed areas number (No)
- (f) Possession or use of intoxicating substances on site number (No)
- (g) Any vehicles being driven in excess of designated speed limits number (No)
- Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife number (No)
- (i) Illegal hunting number (No)
- (j) Urination and defecation anywhere except in designated areas number (No)

The unit of measurement shall be the number of less serious violation incidents. The penalty rates applied shall be those stated in clause G 10.03.

The Engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. 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.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Item

Unit

G 11.04 Contractor's time related obligations in respect of**Environmental management plans and specifications monthly**

The tendered monthly amount shall represent full compensation for that part of the Contractor's general obligations in terms of the environmental management plans and specifications which are mainly a function of time. This includes inter alia payment of all costs of the approved designated environmental office (DEO) and other staff contemplated in the administration of the environmental obligations, including the transport of employees on site. Payment will be monthly. The following obligations will be directed by the Audit reports to be compiled by the Environmental control officer and that report will give a clue on the basis of contractor's compliance on the below obligations:

Below is the list of time related obligations in respect of EMP specifications but not limited to:

- Servicing of Toilets on site & Submission of proof of safe disposal
- Dust Suppression
- Cleaning of spillages on site
- Methods statement for all the activities
- Waste disposal and proof of safe disposal (Registered landfill site)
- Designated Environmental officer (Full time on site)
- Administration for all the required documents for Environmental Compliance
- Maintenance of site camp standard
- Provision of all the Covid-19 requirements

Contractor's initial obligations in respect to Environmental Management Plans**Specifications.....Lump Sum**

- Site Establishment
- Fencing of Borrow pits & Quarrying Area
- Provision of Toilets on site, Quarrying and Borrow pit
- Provision of Waste Bins on sites for waste separations
- Legal Requirements in terms of NEMA
- Mining Requirements as per the Mine regulations and Bylaws.
- Methods statement for all the activities
- Waste management plan
- All necessary Signage's to be posted on site
- Provision of PPE

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Table 1: Mechanisms that Cause Environmental Impacts during Construction Activities

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	High Sensitivity
Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Moderate Sensitivity
Accommodation of Traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Moderate
Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	Moderate
Clearing and grubbing	Waste treatment Hazardous waste	Selection of site Preserve indigenous vegetation	Selection of site Preserve indigenous	Protection of indigenous vegetation	Moderate

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
	Water supply Noise /lights Dust control	Preserve topsoil	vegetation Preserve topsoil	Preserve topsoil	
Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Moderate
Borrow pits/Quarrying	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	High Sensitivity
Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Moderate/Low
Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Low-Moderate
Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Low

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
	Noise / lights Dust control	Maintenance of windrows			
Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	High Sensitivity
Ancillary roadworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Low-Moderate
Structures	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Low-Moderate
Concrete/Cement	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	Moderate to High

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Section 1.02
Guarantee

C5.3Annex III - Borrow Pit

BANK OR GUARANTOR'S LETTER HEAD)

(Reference number)

(Guarantee number)

The Regional Manager
The Department of Mineral and Energy
POLOKWANE

Dear Sir/ Madam

FINANCIAL GUARANTEE FOR THE REHABILITATION OF LAND DISTURBED BY MINING (EXECUTION OF ENVIRONMENTAL MANAGEMENT PROGRAMME)

Concerning the responsibility in terms of the Mineral and Petroleum Resources Development Act 28 of 2002, which is incumbent on

(hereinafter referred to as "the mine owner") to execute the environmental management programme approved in terms of the provisions of the said Act for the mine known as situated in the magisterial district of Province

I/We .. , in my/our Capacity/capacities of

and as duly authorized representative ..

(Hereinafter referred to as "the guarantor") confirm that the amount of R

R () is available to you for the purpose of executing the said environmental management programme.

The guarantor, who hereby waives the advantages of the exceptions non numerate pecuniae non causa debiti executionis et divisionis the meaning and the consequences of which is known to the guarantor undertakes to pay to you the said

sum of R (.....) upon receipt of a written claim from you to do so and the claim may be submitted by you, if (in your opinion and discretion) the mine owner fails or remains in default to execute the said environmental management programme, or if he ceases mining/prospecting operations, or if his estate is sequestrated, or if he should hand over his estate in terms of the Insolvency act which are applicable in the Republic of South Africa, or if the guarantor gives written notice to you in terms of clause 5 of this agreement. The said claim may be instituted by you at any stage commencing from the date of signature of this guarantee.

The said amount of R may be held by you on the condition that you, after having complied with all the provisions of the said environmental management programme, will give account to the guarantor of how the amount was appropriated and repay any inappropriate amount to the guarantor.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

This undertaking is neither negotiable nor transferable, and –

must be returned to the guarantor when giving account to the guarantor in terms of clause 3 above,

shall lapse on the granting of a closure certificate in terms of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and

shall not be construed as placing any other responsibility on the guarantor other than the paying of the guaranteed amount.

The guarantor reserves the right to withdraw from this guarantee after having given you at least three months written notice in advance of his intention to do so.

Yours faithfully

.....
ADDRESS:

.....

.....

.....

DATE:

PLEASE NOTE: (1) No amendments and/or additions to the wording of this Guarantee will be accepted.
The address of the guarantee must be stated clearly.
This guarantee must be returned to:

.....

.....

.....

.....

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

SECTION OHS : OHS 1993 HEALTH AND SAFETY SPECIFICATION**OHS.1 SCOPE**

This specification covers the health and safety requirements to be met 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 Agreement in Section C1.2.4 of the Contract 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 1993 and the Construction Regulations 2014.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2014, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Working high above the ground on top and below the bridge, most of the time in a restricted environment with limited landings (working platforms)
- Working above a continuously flowing river and in an flood plain environment subject to flooding
- Lifting and lowering of materials and equipment from the ground to the bridge and vice versa, exposed to cross winds
- Steep and restricted access to the lower flood plain below the bridge
- Potentially dangerous existing services, i.e. gas lines, water and sewerage mains, electrical high voltage cables, on the bridge, buried and overhead
- Deep excavations in soils requiring shoring or reducing of slopes
- Blasting of hard rock or demolition of concrete
- High pressure during testing of the relocated pipe lines, which could result in potentially dangerous situations in the event of the pipeline or fittings failing
- Potentially harmful gasses when tying into the existing sewer mains
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services
- Exposure to possible injuries due to mishandling or failure of power and hand tools
- Falling debris, tools and materials from bridge
- Non-conformance to specifications with regards to fasteners and materials
- Risks related to general safety and security on site

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

OHS.2 DEFINITIONS

For the purpose of this contract the following shall apply:

Employer” where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract 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.

“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.

In this specification the terms **“principal contractor”** and **“contractor”** are replaced with **“Contractor”** and **“subcontractor”** respectively.

For the purpose of this contract the **Contractor** will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

“Engineer” where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

OHS.3 TENDERS

The Contractor shall submit the following with his tender:

a documented Health and Safety Plan as stipulated in Regulation 7 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2014 and will be subject to approval by the Employer;

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;

a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.

Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

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OHS.4 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:

- the demolition of structures and dismantling of fixed plant of height of 3,0m or more;
- the use of explosives;
- construction work that will exceed 30 days or 300 person-days;
- excavation work deeper than 1,0m; or
- working at a height greater than 3,0m above ground or landings.

The notification must be done in the form of the pro forma included under Section 9 (Forms to be Completed by Successful Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

OHS.5 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 9 of the Construction Regulations 2014).

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.

OHS.6 APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS**6.1 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.

6.2 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 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.

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OHS.7 APPOINTMENT OF SAFETY PERSONNEL**7.1 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.

7.2 Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time **Construction Safety Officer** if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

7.3 Health and safety representatives

In terms of **Section 17 and 18 of the Act (OHSA 1993)** the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a **health and safety representative** whenever he has more than 20 employees in his employment on the site of 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 100 employees.

The function of 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.

7.4 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 recommendations and reports made by the committee.

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7.5 Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- Risk assessment and induction training as described in Regulation 9 of the Construction Regulations;
- Fall protection as described in Regulation 10;
- Excavation work as described in Regulation 13;
- Demolition work as described in Regulation 14;
- Scaffolding work as described in Regulation 16;
- Suspended platform operations as described in Regulation 17;
- Material hoists as described in Regulation 19;
- Bulk Mixing plant operations as described in Regulation 20;
- Explosive actuated fastening device as described in Regulation 21;
- Cranes as described in Regulation 22;
- Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 23(1);
- Control of all temporary electrical installation on the construction site as described in Regulation 24;
- Stacking and storage on construction sites as described in Regulation 28; and
- Fire precautions on construction sites as described in Regulation 29.

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.

OHS.8 RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

- A copy of the OHS 1993 Construction Regulations 2014;
- A copy of this Health and Safety Specification;
- A copy of the Contractor's Health and Safety Plan (Regulation 7);
- A copy of the Notification of Construction Work (Regulation 4);
- A health and safety file in terms of Regulation 7(1b) with inputs by the Construction Safety Officer (Regulation 8(5));
- A copy of the risk assessment described in Regulation 9;
- A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- Drawings pertaining to the design of structures (Regulation 11(1c)) and temporary works (Regulation 10) must be kept on site;
- Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13(2)(h));
- A copy of the certificate of the system design for suspended platforms (Regulation 17(3));
- A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 11(2));

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Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 19(8));

A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 19(8));

A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 21(2));

A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 23(1) (k)).

OHS.9 CONTRACTORS RESPONSIBILITIES

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (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.

Contractor's position in relation to the Employer (Client) (Regulation 5)

In accordance with Section 4 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.

The Principal Contractor and Contractor (Regulation 7)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principle 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.

Management 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.

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Risk assessment for construction works (Regulation 9)

The Contractor shall have the risk assessment made as set out in paragraph 3 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.

Fall protection (Regulation 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 10 of the Construction Regulations.

Structures (Regulation 11)

The Contractor will be liable for all claims arising from 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 11 of the Construction Regulations.

Temporary works (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.

The provisions of Regulation 12 of the Construction Regulations shall be followed in every detail.

Excavation (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 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.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 13 of the Construction Regulations.

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Demolition work (Regulation 14)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 14 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.

Tunneling (Regulation 15)

The Contractor shall comply with Regulation 15 wherever tunneling of any kind is involved.

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"].

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 17 of the Construction Regulations.

Rope Access (Regulation 18)

Where rope access are required on the construction site, the Contractor shall comply with Regulation 18.

Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 19 to the letter.

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.

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Explosive actuated fastening devices (Regulation 21)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 21 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.

Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

Construction vehicles And mobile plant (Regulation 23)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. 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.

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.

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 1986) 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.

Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

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Housekeeping and general safeguarding on construction sites (Regulation 27)

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 27 of the Construction Regulations.

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 Regulation 28 of the Construction Regulations shall apply.

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.

Construction welfare 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.

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 4 to 30 as listed in Regulation 33, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 33.

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.

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OHS.10 MEASUREMENT AND PAYMENT**10.1 Principles**

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

Safety personnel

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses 9.1 to 9.5 shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

Records and Registers

The keeping of health and safety-related records and registers as described in 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.

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C5.4 Part H Annex IV - Health and Safety Specification

Project		CONSTRUCTION OF MADEIRA ACCESS ROAD	
Client		Department Of Public Works and Roads	
Prepared By		Complied By	Approved By
		DOCUMENT CHANGE RECORD	
Rev	Date	Section(s) change(d)	Description of Revision

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

H 1. Introduction

Construction regulation 7(1) states that a principal contractor shall provide and demonstrate to the client a suitable and sufficiently documented health and safety plan based on the client's documented health and safety specifications which shall be applied from the date of commencement of and for the duration of the construction work

This document therefore describes the health and safety specifications required by the client for any principal contractor who is making a bid for or who has been appointed to perform construction work on behalf of the client. [Ref. CR 5(1)(b)]. The specification is based on relevant legislation as a minimum requirement and any best practices the client subscribes to that will contribute to an improved health and safety performance

Principal contractors are requested to compile their Health and Safety Plans including risk assessments, based on the specifications detailed and referred to, in this document. In other words, the Health and Safety Plan must specify how the principal contractor will control and manage all health and safety aspects on the construction site. The importance of the plan cannot be emphasized enough, as it is the direct response to these specifications which is the minimum health and safety standard required by the contractor on site.

The Health and Safety Plan and all required documentation that are part of the health and safety file on site must be reviewed and approved by the client's agent prior to the principal contractor commencing work on site.

H 2. Reference Documents

The following Acts and Regulations are referred to in this document followed by their abbreviations in brackets. Note that this is not an exhaustive list and other documents may be referred to if necessary, in order to compile a Health and Safety Plan:

2.1. Occupational Health and Safety Act, (Act No. 85 of 1993) and Mining Health and Safety Act - [OHSA] and Regulations as follows:

- Construction Regulations [CR]
 - General Admin Regulations [GAR]
 - o General Safety Regulations [GSR]
 - o Environmental Regulations for Workplaces [ERW]
 - o Hazardous Chemical Substances Regulations [HCSR]
 - o Lead Regulations [LR]
 - o Noise Induced Hearing Loss Regulations [NIHLR]
 - o General Machinery Regulations [GMR]
 - o Electrical Installation Regulations [EIR] o
 - Electrical Machinery Regulations [EMR] o
 - Pressure Equipment Regulations [PER]
 - o Basic Conditions of Employment Act (Act 75 of 1197)
 - o National Environmental Management Act no 107 of 1998
- 2.2. Compensation for Occupational Injury and Diseases Act – [COIDA]**
- 2.3. Standards applicable such as:**

SANS10103 the Measurement and Rating of Environmental Noise with Respect to annoyance and to Speech Communication.

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H 3. Definitions

The following definitions apply. (Abbreviations and legal references in brackets where applicable):

Construction Work [CR 1]:

Means any work in connection with –

The erection, maintenance, alteration, renovation, repair, demolition or dismantling of or an addition to a building or any similar structure;

The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;

The construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or

The moving of earth, clearing of land or making of an excavation or work on any similar type of work.

Hazard Identification, Risk Assessment and Risk Control (HIRA)

Means a documented plan, which identifies hazards, assesses the risks and detailing the control measures and safe working procedures, which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

Site

Means the area in the possession of the Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Contractor, and approved for such use by the client.

Hazard

Means a source of or exposure to danger (source which may cause injury or damage to persons or property)

Risk

Means the probability or likelihood that a hazard can result in injury or damage.

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Construction Manager [CR 8(1)]

Means a full time, competent employee appointed in writing by the Contractor to supervise construction work. The appointment, as required by the OHSA, shall stipulate health and safety responsibilities, area of responsibility and the proposed duration of the project.

Hazardous Chemical Substance (HCS)

Means any toxic, harmful, corrosive, irritant or asphyxiant substance, or a mixture or substances for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health.

Construction Plant

Encompasses all types of plant including but not limited to, cranes, piling frames, boring machines, excavators, dewatering equipment and road vehicles with or without lifting equipment.

Contractor [CR 1]

Means an employer [OHSA 1] who performs construction work and includes principal contractors and sub-contractors

Health and Safety Plan (HSP) [CR 1]

Means a documented plan, which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified.

The plan shall be applied from the date of commencement of and for the duration of construction work [CR 7(1)]

Health and Safety File (HSF) [CR 1]

The file holding all documentation and records on health and safety for the project, which shall be available at all times for evaluation, and a copy of which will be forwarded to the client upon completion of the project.

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Disabling Injury Frequency Rate (DIFR)

The number of disabling injuries (DI's) multiplied by a constant (man hours relative to period worked) divided by total man hours worked over a rolling period (usually 12 months, but can be less)

Disabling Injury Severity Rate (DISR)

The number of days lost due to DI's multiplied by a constant (man hours relative to period worked) divided by total man hours worked over a rolling period (usually 12 months, but can be less)

Confined Space

An enclosed, restricted or limited space in which, because of its construction, location or contents, or any work carried on therein, a hazardous substance may accumulate or an oxygen deficient atmosphere may occur, and includes any chamber, tunnel, pipe, pit, sewer, container, valve, machinery or object in which a dangerous liquid or dangerous concentration of gas, vapour, dust or fumes may be present.

H 4. Responsibilities of Contractors for Construction Work**H 4.1. Notification of Intention to Commence Construction Work [CR 4]**

The principal contractor shall within 7 days notify the Provincial Director of the Department of Labour before any work commences, in accordance with the following requirements:

The demolition of a structure exceeding a height of 3 meters; or

The use of explosives to perform construction work; or

The dismantling of fixed plant at a height greater than 3 meters;

or

The work exceeds 30 days or will involve more than 300 person days of construction work; and

Includes excavation work deeper than 1 meter; or

Includes working at a height greater than 3 meters above ground or a landing.

The notification must be done on a form similar to that shown in **Annexure** and a copy of the completed form kept in the HSF for inspection by an inspector, the client or an employee.

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H 4.2. Principal Contractor's Responsibilities [CR 7]

Compile a HSP [CR 7(1)]

Ensure co-operation between all contractors to comply to the Act

Provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on this client's health and safety specifications of which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses.

Ensure compliance to the Act in terms of

Provide relevant sections of these specifications to contractors as required

Appoint each contractor in (a) above in writing. Only contractors who have the necessary competencies and resources may be appointed

Ensure each contractor's HSP is implemented and maintained on site

Stop any contractor from work which is not in accordance with HSP's or which pose a threat to health and safety of persons

Sufficient information is provided to contractors where there are changes to design and construction

Ensure every contractor is registered and in good standing with the Compensation Commissioner

Ensure potential contractors have made provision for the cost of health and safety measures

Negotiate and approve the HSP of each contractor

All HSP's including the principal contractor's to be available on site

All HSF's including the principal contractor's to be available on site

A consolidated HSF to be handed over to the client on completion of construction including records of drawings, designs etc

HSF to include updated list of all contractors, the agreements and their type of work

H 4.3. Contractor's Responsibilities (including sub-contractors)

Provide their HSP to the principal contractor

Where a contractor appoints another contractor (sub-contractor) it is the responsibility of that contractor to apply a) above as if he were the principal contractor.

No contractor to appoint another contractor (sub-contractor) unless the latter has the necessary competency and resources to perform the required work.

To provide any information which affects the health and safety of any persons at work to the principal contractor.

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H 4.4. Supervision of Construction Work [CR 8]

The appointments embodied in this regulation are as follows:

Construction Manager [CR 8(1)]

Assistant construction manager [CR 8(2)]

Safety officer [CR 8(5)], in terms of the nature of project such Safety Officer must be full-time on site and must avail him/herself whenever there is work at the Quarry. Registered with SACPCMP council.

Construction Supervisor [CR 8(7)]

The detailed requirements of these appointments can be found under the relevant regulation. In terms of competence of these appointees, they are to be approved by the client's agent before being appointed for the project.

H 4.5. Legal Appointments

The principal contractor shall ensure copies of the appointment letters of all responsible persons appointed on site will be kept in the HSF. All legal appointments shall be conducted in accordance with the requirements set out in the OHSA and as per this specification. The appointment protocols for the CR and the OHSA are set out in the tables below. It should be noted that these represent complete lists and not all these appointments may be required:

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H 4.5.1. Construction Regulations

Reg.	Appointment	Appointee	Appointed by	Represented by
CR 7(1 c)	Principal Contractor	16(2) for the company	Client	Project Manager
CR7 (3)	Contractor	Competent person	Principal Contractor	16(2)
CR 8 (1)	Construction Manager	Competent person	Principal Contractor	16(2)
CR 8 (2)	Assistant Construction Manager	Competent person	Principal Contractor	16(2)
CR 8 (5)	Safety Officer (SACPCMP registered)	Competent person	Principal Contractor	16(2)
CR 9 (1)	Risk Assessor	Competent person	Principal Contractor	16(2)
CR 10 (1a)	Fall Protection Planner	Competent person	Principal Contractor	16(2)
CR 11(2 a)	Structure Inspector	Competent person	Principal Contractor	16(2)
CR 12 (a)	Formwork & Support work Inspector	Competent person	Principal Contractor	16(2)
CR 13 (1)	Excavation Work Inspector	Competent person	Principal Contractor	16(2)
CR 14 (1)	Demolition Work Supervisor	Competent person	Principal Contractor	16(2)
CR 17	Suspended Platform Supervisor	Competent person	Principal Contractor	16(2)
CR 20	Batch Plant Supervisor	Competent person	Principal Contractor	16(2)
CR 21	Explosive power tool Controller	Competent person	Principal Contractor	16(2)
CR 22	Mobile Crane Operator	Competent person	Principal Contractor	16(2)
CR 23	Construction Vehicle Inspector	Competent person	Principal Contractor	16(2)
CR 24	Temporary Electrical Installation Inspector	Competent person	Principal Contractor	16(2)
CR 28	Stacking and Storage Supervisor	Competent person	Principal Contractor	16(2)
CR 29	Fire Equipment Inspector	Competent person	Principal Contractor	16(2)
CR 29	Fire Team Members	Competent person	Principal Contractor	16(2)

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OHS Act

Reg.	Appointment	Appointee	Appointed by	Represented by
OHSA 16 (1)	16 (1)	CEO	Board members	
OHSA 16 (2)	16 (2)	Contract Manager	16(1)	CEO
OHSA 17 (1)	Health & Safety Rep	Nominated employee	16(1)	CEO
OHSA 8	Hand Tools Inspector	Competent person	Principal Contractor	16(2)
GAR 9 (2)	Incident Investigator	Competent person	Principal Contractor	16(2)
GSR 3 (4)	First Aider	Competent person	Principal Contractor	16(2)
GSR 13	Ladder Inspector	Competent person	Principal Contractor	16(2)
FR 9	Welfare Facilities Inspector	Competent person	Principal Contractor	16(2)
HCSR 3	Hazardous Chemical Substances Co-ordinator	Competent person	Principal Contractor	16(2)
DMR 18 (11)	Lifting Equipment Operator	Competent person	Principal Contractor	16(2)
DMR 18 (5)	Lifting Equipment Inspector	Competent person	Principal Contractor	16(2)
PER 10	Portable Gas Bottle Inspector	Competent person	Principal Contractor	16(2)

The responsibilities of each appointment are detailed in the relevant written appointment form, which are signed by both the authorised person and the appointee and kept in the Health and Safety file.

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H 5. Documentation and Procedures

All required documentation for the construction work, shall be kept in the HSF, which shall be available on site. The Construction Supervisor shall be responsible for the file on site and ensure that documentation is valid and up to date. The procedures to be used for the project are to be in accordance with contractor policy and as per the outcome of the HRA exercise. It is required that the documentation is filed in an orderly fashion for easy access. The following sections are suggested:

Policies, permits etc

Health & Safety plans, specifications

Appointments

Incident management

Inspection checklists

Risk assessments

Training and Competency

Procedures

Hazardous Chemical Substances

Environmental Risk Assessments and protocols

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

H 6. Application of COIDA and OHS Act to Construction Work**H 6.1 Compensation of Occupational Injuries and Diseases Act, Act No. 130 of 1993 (COIDA)**

Every contractor shall provide proof of registration and updated letter of good standing with the Compensation Commissioner.

H 6.2 Occupational Health and Safety Policy [OHS Act 7] and copy of the Act [GAR 4]

Every contractor's OHS Policy statement should be available for scrutiny and as evidence of their commitment their employees' occupational health and safety. If the contractor has 5 or more employees on site, a copy of the OHS Act and regulations must be available on the site and ensure that such copies are displayed at visible areas such site offices, boardrooms and notice boards.

H 6.3 Health and Safety Training and Competency

Training of personnel is a necessity and a legal requirement when required. A record of all training shall be kept and provided on request.

H 6.3.1 Induction Training

The principal contractor shall be responsible for the induction of all personnel entering the site including visitors, inspectors etc. An identification card confirming induction training must be carried by all contract personnel and site security informed so that only contractors carrying a card may be admitted to the site. Contractors doing specific construction work shall be responsible for the induction of their employees with respect to that specific work.

H 6.3.2 Awareness Training

In addition, the client would favour awareness training to be carried out such as Toolbox Talks on relevant topics e.g. manual lifting, wearing PPE, safe use of portable electric tools etc.

H 6.3.3 Competency and CV's

Where applicable, valid copies of certificates of competency of appointed personnel to be provided and kept in the HSF. Other training requirements such as those identified through the HIRA process, to be completed and proof of that training also kept in the HSF. Where competency is achieved through experience, a brief CV will be required.

H 6.3.4 Specific OHS training

Valid certificates of training from registered service providers preferably accredited by the appropriate SETA are required for First Aiders, H&S reps, Fire Marshals etc.

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H 6.3.5 Medical Fitness

All employees will have entry and exit valid medical fitness certificate, certified by a HPCSA registered occupational medical practitioner to be fit for work. See the annexure 3A template

H 6.4 Hazards and Potentially Hazardous Situations [OHSA 13]

The principal contractor is responsible to ensure that all contractors and any visitors are warned of any hazardous or potentially hazardous situations, which may affect them on site and shall put any additional measures in place to assist in mitigating the risk of these hazards.

H 6.5 Health and Safety Reps [OHSA 17 and 18]

The principal contractor shall be responsible to ensure compliance to this section of the OHSA as required and to ensure similar compliance of all contractors. All contractors are required to have at least one OHS rep even if the minimum requirement of 20 employees is not met.

H 6.6 Health and Safety Committee [OHSA 19 and 20]

The principal contractor shall be responsible to ensure compliance to this section of the OHSA as required. A health and safety committee must be formed that will be chaired by the principal contractor's 16(2) and which will consist of all OHS reps from both the principal contractor and all contractors. They will meet at least once a month and a record kept of all meetings.

H 6.7 General Record Keeping

The principal contractor shall ensure that all Health and Safety records, required by OHSA and Regulations are kept for reference purposes and auditing.

H 6.7.1 Inspections

The principal contractor shall keep all records of inspections undertaken during the contract. The total list of inspections can be found under **Annexure 1 (at the bottom)**. An assessment will need to be made of what inspections are required and their frequency. The principal contractor is also responsible to ensure compliance to this requirement by all contractors.

H 6.7.2 Audits

The client's agent shall carry out regular audits on the principal contractor at least once per month. Similarly, principal contractors shall be responsible for carrying out regular audits on their contractors at least once per month. The results shall be tabled for action and discussed at the Health and Safety Committee meetings or the site meetings, as appropriate. Records of such meetings must be kept in the file, made available upon request by inspector, client or client's agent.

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H 6.8 Incident management and emergency plans

The principal contractor shall create an Emergency Plan for the construction site. The plan shall be clearly laid out for all types of emergencies including responsibilities, evacuation routes, siren, emergency no.'s etc. The plan shall be fully explained to all personnel during the induction training. All contractors will become completely familiar with the requirements of the plan and will participate in any evacuation drills that may take place.

H 6.8.1 First Aid [GSR 3]

The principal contractor shall be responsible to ensure compliance to this regulation as required. In particular, a first aid box with the minimum stock as specified in the regulation will be located at the site office and there will be signage to indicate the location of the box. Attention is drawn to GSR 3(4) for the requirement of trained first aiders. It is also suggested that a trained first aider be made responsible for the box in terms of the following:

- Security – the box should not be left open but it must be accessible in case of emergency (spare key availability)
- Injuries - a record of first aid box injuries treated and the stock issued (Dressing Register)
- Stock – a regular inspection to maintain stock levels and check expiry dates

In addition, the first aid requirements should be noted for high risk substances or hazardous chemical substances and if these are to be used, then it should be addressed in the HRA and the need for eye wash facilities assessed.

H 6.8.2 Incidents and Injuries**Incidents**

The principal contractor shall provide evidence by means of a procedure or chart that he is fully aware of the “hierarchy” of incidents that can occur e.g. unsafe situations, near misses, first aid box injuries, medical cases, disabling injuries etc. He shall keep an incident register of all such incidents, investigate and apply corrective action where required. The client also reserves the right to request incident statistics from the principal contractor such as DI's, DIFR and DISR and it is advised that these are maintained.

Injuries

First aid box injuries have been addressed under 6.8.1 above. More serious injuries requiring transport of the injured person to the nearest hospital or doctor or the calling of an ambulance and paramedic personnel will be the responsibility of the principal contractor's appointed personnel such as the Construction Supervisor, First Aider and Safety Officer. It is advised that all required emergency numbers be on hand and prominently displayed.

As all contractors are registered and in good standing with the Compensation Commissioner, it will be the responsibility of the contractor whose employee has been injured, to make the necessary report and claims to the Commissioner.

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H 6.8.3 Accident and Incident Reporting and Investigation [OHSA 24, GAR 8, 9 (1) & (2)]

Should an incident or accident investigation need to be conducted, a competent person shall be appointed to conduct the said investigation. The procedure to be followed will be in accordance with Annexure 1 of GAR 9 – “Recording and Investigation of incidents”. A copy of this annexure can be found under **Annexure 2 (at the bottom)** in this document

Particular attention is also drawn to OHSA 24, the reporting of certain incidents to an inspector of the Department of Labour

The principal contractor shall ensure that the investigations are kept for record purposes and he shall ensure that the outcome of the investigation is communicated to all affected parties as required i.e. the client and contractors

The client reserves the right to participate in all investigations into accidents or incidents and to conduct their own investigation if required.

H 6.8.4 Fire Precautions on Construction Site.

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

All appropriate measures are taken to avoid the risk of fire.

A sufficient and well-functioning mobile fire alarm must be in place.

Sufficient and suitable storage is provided for flammable liquids, solids and gases.

Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials.

Combustible materials do not accumulate on the construction site; (welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire.

Suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order.

The fire equipment contemplated in paragraph (g) is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof:

A sufficient number of workers are trained in the use of fire- extinguishing equipment;) where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire.

The means of escape is kept clear at all times; there is an effective evacuation plan providing for all:

Persons to be evacuated speedily without panic.

Persons to be accounted for at the Assembly point.

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H 6.9 Contractors and suppliers [OHSA 37(2)]

The client shall enter into an "Agreement with Mandatory" in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993, with all appointed principal contractors, a copy of which can be found under **Annexure 3 (at the bottom)**. Likewise, all principal contractors shall enter into a similar agreement with all contractors, sub-contracted to them for the duration of their contract. Please note that if contractors hire any construction vehicles including operator, the companies from which the equipment is hired are subject to the requirements as "contractors" detailed in this document

The principal contractor shall ensure that all contractors are issued with this safety specification where reasonably practicable including any contractor pack for the project, should they not be contained in the safety specification.

The principal contractor shall assist and ensure that contractors engaged comply with all of these requirements and adhere to the requirements set out in the OHSA. Contractors will be stopped from working in the event of unsafe conditions and activities being observed.

All contractors shall be subject to the requirements specified in the HSP and will be issued with a copy of the plan. If the contractor is not able to comply with the requirements set out in the plan, he shall not be appointed as contractor.

H 6.10 Personal Protective Equipment, Intoxication, Signage and Access Control [GSR 2]**H 6.10.1 Personal Protective Equipment (PPE) [GSR 2]**

The principal contractor shall through the Risk Assessment process identify the specific PPE needs per activity. Contractors, as employers, will be responsible for the issue of the required PPE. Should PPE be lost or stolen, then the employee will be issued with new PPE. Should PPE be worn out or damaged, the user shall return the worn or damaged PPE and will be issued with a replacement. Contractor is required to issue PPE every after 6 months, whether worn out or damaged. Training in the use of this shall be provided. Visitors shall be informed of PPE requirements prior to their visit so that they may enter the site.

H 6.10.2 Intoxication [GSR 2A]

The principal contractor shall be responsible to ensure that no persons may enter or remain at the construction site if under or apparently under the influence of intoxicating liquor or drugs. Random breathalyser testing shall be carried out using the marked ping pong ball method. If anyone is found intoxicated such person must not allowed entry.

H 6.10.3 Display of signs [GSR 2B]

The principal contractor should make use of signage to assist in enforcing compliance to any requirement specified in this document or as required by law. Standard symbolic signs are acceptable for conveying these requirements where applicable.

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H 6.10.4 Access control [GSR 2C]

The principal contractor shall be responsible to ensure control of all persons entering the construction site by means of the biometric access control system and access registrar controlled by the security guard. The reasons for this are as follows:

The principal contractor is the 'employer' on the site and for all intents and purposes is responsible for section 8 of OHSA for employees and contractors and section 9 for any other person on site such as visitors and inspectors

All persons entering the site must undergo induction training to inform them of the hazards present on the site. This includes contractors, visitors, inspectors etc

The construction supervisor will be aware of who is on site and their function

The construction supervisor will be able to control tasks that may impact on other work being carried out on the site by a permit to work system

The number of people and their purpose on the site must be known in case of emergency and evacuation

Security reasons.

The principal contractor shall post conspicuous notices at the site informing all those entering the site of these requirements.

H 6.11 Ladders [GSR 13A]

The following requirements shall be complied with regarding Ladders and Ladder work:

A competent person shall be identified and appointed as the ladder inspector.

Where aluminium ladders cannot be used, then wooden ladders shall be straight grained, unpainted to allow for proper inspection of the grain for cracking.

Ladders shall be secured at the top and chocked at the base to prevent slipping.

Where chocking of the base is not possible, then the user shall ensure that the ladder is held in position by another employee when ascending the ladder.

Ladders shall be inspected a minimum once per month by the person appointed as the ladder inspector.

Proper storage shall be provided for all ladders when not in use.

H 6.12 Ramps [GSR 13B]

The following requirements shall be complied with regarding

Ramps:

Is constructed in accordance with accepted standards

Has a safety factor of at least 2 with respect to the load it is expected to carry

Has an inclination to the horizontal of not more than 34°

Every ramp steeper than 14° is provided with stepping laths at suitable intervals which may be interrupted to allow for wheel barrows

All ramps higher than 2m must be provided on both sides with substantial handrails at least 900 mm and not more than 1000 mm in height and toe boards at least 150mm in height.

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H 6.13 Pressure Equipment Regulations (Gas Bottles) [PER]

If gas bottle sets (Oxy-Acetylene for heating, cutting, welding) are used, these regulations, as required, shall be adhered to. Regular inspection of the sets shall be carried out. In particular:

Only trained personnel shall operate such equipment.

The Construction Supervisor shall ensure operation of the equipment is in accordance with the HIRA requirements and Safe Working Procedure (SWP) or method statement.

All users shall undergo regular awareness training (toolbox talk) to ensure compliance.

The Construction Supervisor shall ensure the required PPE is used.

H 6.14 Portable Electrical Tools [EMR 9]

This regulation shall be complied with as a minimum requirement. Regular inspections of all Portable Electrical Tools such as drills, angle grinders etc, and shall be carried out. In particular:

Only trained personnel shall operate such equipment.

The Construction Supervisor shall ensure operation of the equipment is in accordance with the HIRA requirements and Safe Working Procedure (SWP).

All users shall undergo regular awareness training (toolbox talk) to ensure compliance.

The Construction Supervisor shall ensure the required PPE is used.

H 6.15 Permit to work (including hot work)

The principal contractor shall be responsible to ensure that:

All work being carried out on the site has been approved through the necessary project control system
Permits required from third parties such as town councils for utility and sewage services are in place

If required, a permit system is operational so that work consisting of many tasks related to the construction on site, can be carried out without endangering the health and safety of personnel on site, neighbours and the public surrounding the site and/or causing damage to property.

In particular, attention is drawn to GSR 9, which details the requirements for welding, flame cutting, soldering and similar operations (hot work).

H 6.16 Work in confined spaces [GSR 5]

The principal contractor shall be responsible to ensure that no work is carried out in a confined space unless it is safe to do so. All the requirements of this regulation shall be met. Attention is drawn to the fact that further precautions are required if hot work is to be carried out in a confined space as per GSR 5(5) and GSR 9(2).

In addition, CR 11(3)(j) specifies that excavations are regarded as confined spaces and these precautions need to be applied.

H 6.17 Noise within the construction site [NIHL]

The principal contractor shall be responsible to ensure compliance with this regulation where applicable within the construction site.

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H 6.18 Noise impacting the surrounding neighbourhood

The principal contractor shall be responsible to ensure compliance as follows:

H 6.18.1 The Noise Control regulation (GN 5479 of 1999) provides:

A uniform minimum standard for noise regulation in the Province
Accommodates the specific circumstances of different neighbourhoods and areas, and
Creates new mechanisms for effective enforcement in neighbourhoods.

Section 9(m) prohibits the use any power tool or power equipment used for **construction work, drilling work or demolition work**, or allow it to be used, in or near a residential area if it may cause a noise nuisance. Noise nuisance is defined as any sound, which disturbs or impairs, or may disturb or impair the convenience or peace of any reasonable person considering time of day and environment.

The regulations define a "disturbing noise" as meaning, "...a noise level that causes the ambient noise level to rise above the designated zone level, or if no zone level has been designated, the typical rating levels for ambient noise in districts which can be obtained from the following code of practice below.

H 6.18.2 The South African National Standard SANS 10103:2008 - The Measurement and Rating of Environmental Noise with Respect to Annoyance and to Speech Communication provides guidance in defining noise impact criteria limits and standards and is also used by local authorities in the control of environmental noise

The code of practice should be referred to obtain typical noise rating levels for various land use types and expected community response that may be elicited should these levels be exceeded.

H 6.19 Hazardous Chemical Substances [HCSR]

The principal contractor shall be responsible to ensure compliance with this regulation where applicable within the construction site. A hazardous chemical substance is any toxic, harmful, corrosive irritant or asphyxiant substance or mixture of such substances for which an occupational exposure limit is prescribed or which creates a hazard to health. For example cement is a hazardous chemical substance.

The principal contractor shall ensure that all hazardous chemicals brought to site have a Material Safety Data Sheet (MSDS) and the users are made aware of the important sections of the MSDS such as:

- Hazards
- First aid measures
- Fire-fighting measures Accidental release measures
- Handling and storage Exposure control especially PPE
- Disposal

First Aiders shall be made aware of the MSDS and how to treat HCS incidents appropriately. Copies of MSDS's will be available on site and in the HSF.

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H 6.20 Traffic control

The principal contractor shall appoint a competent person to design and maintain a site specific traffic control management plan and have this plan approved and accepted by the local authorities and have a copy available in the file.

The Principal Contractor shall ensure that a fulltime traffic safety officer be appointed in writing, upon the commencement of construction activities.

The traffic safety officer shall be tasked with regular inspections and movement of road traffic signs as per the approved traffic accommodation plans and will report to the safety officer.

This document must indicate the potential risk to the public or environment posed by all vehicles travelling to and from the areas of construction for the purpose of the construction work, and proposes methods to eradicate or minimize these risks. Such a plan must include the following aspects:

- Design of Traffic Management Plan
- Site specific base line risk assessment
- Protection of employees
- Protection of pedestrians
- Specific signage and distances applicable
- Applicable training
- Appointments of road safety officers
- Management after hours/weekend/adverse weather conditions
- Setup and clearing of signage

The Principal Contractor will also put in place flagmen to control the entry and exit of vehicles to and from the site onto the public roads.

The Principal Contractor must bear in mind that there are two villages within the proposed road. Therefore traffic safety should be strengthened and timeously monitored.

H 6.21. Public Health and Safety

The contractor shall ensure that each person working on or visiting a site, and the surrounding community shall be made aware of the dangers likely to arise from onsite activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

H 6.22. Borrow Pit usage

There is one identified borrow pit authorised to borrow materials from. The borrow pit must have all the warning signs and emergency contact board attached to it. Contractor must ensure that a safe excavation when borrowing material, it is adhered to and trucks are able to move around safely.

Ensure that excessive dust is controlled.

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Material from the mine

The contractor will be required to collect material from the mine to be stockpiled in a designated area to be identified outside the mine.

All the loading plant will not be allowed to stay overnight at the mine and therefore the contractor will be required to make that arrangement on a daily basis to remove all the plant from the mine

Induction for all the personnel to enter the mine will be conducted timeously

Valid Medical fitness certificate will be required from a qualified Occupational Doctor

These requirements are in terms of the Mine Health and Safety Act, Act 29 of 1996.

Every Borrow Pit must have a valid Mining Permit issued by the Department of Minerals and Energy.

Adequately safeguard Borrow Pits to prevent unauthorized entry.

Appropriate, conspicuous safety signs must be placed around the excavations.

No undercutting or under mining may be allowed to take place in the Borrow Pit.

All undesired material must be used to backfill the excavations made.

Excavations to be sloped to a safe angel.

All excavations must be design such that they will drain any water accumulated. Where this is impractical, means of protection must be provided.

All operators must be appointed to work in Borrow Pits.

All operators must be authorized to work with machinery in Borrow Pits.

All vehicles working in Borrow Pits shall have reverse hooters, at least 3 mirrors for reversing and shall be fitted with a rotating light.

All machinery working in the Borrow Pit shall have a certificate of compliance by a competent person.

A monthly labour compliment report must be submitted of employees worked in a Borrow Pit.

The contractor shall submit a Code of Practice on Trackless Mobile Machines to the Department of Minerals and Energy for approval.

A Risk Assessment for each Borrow Pit must be submitted.

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Note: Principal Contractor must note that road material will be collected from a mining area and such must be considered and ensure that the Mine health and safety act will be adhere to at all times.

H 7. Application of the Construction Regulations [CR]**H 7.1 Hazard Identification, Risk Assessment and Risk Control (HIRA) [CR 9]**

The contractor shall prior to the commencement of any construction work perform a HIRA exercise, known as a Baseline Risk Assessment which will form part of the HSP for the project. An Issue Based Risk Assessment will be carried out during construction for any changes or variations to procedures or methods and Continuous Risk Assessments may be done during construction as a result of audit findings, inspections, hazard awareness etc.

A copy of the HIRA shall be made available for viewing to the client's agent and shall be kept in the HSF the contractor shall ensure that the outcome of all HIRA exercises will be conveyed to all relevant employees with respect to the hazards and the related control measures before any work commences.

Below is a list of activities, which may be considered for the risk assessment. The list is not exhaustive but covers the main activities applicable on site:

- Contractual appointments, agreements and notifications
- Traffic – restrictions, existing systems, site traffic
- Site security and access
- Existing services, overhead and underground
- Ground conditions / ground water
- Employees and visitors (all persons outside the construction site) safety and liaison
- Demolitions, excavations using explosives
- Tree felling
- Activities that affect adjacent sites and roads during construction
- Excavations in particular those adjacent to roads or sidewalks
- Construction Vehicles and mobile plant use
- Stacking, storage and good housekeeping
- Use and storage of flammable and hazardous chemicals such as petrol, diesel, etc
- Use of hand tools
- Use of portable electrical equipment (power tools)
- Use of flammable and hazardous chemical substances
- Waste management such as removal of excavation waste and debris
- Environmental restraints such as excessive dust
- General hazards to site personnel such as cleaning, noise and dust and correct issuing of PPE
- Welfare facilities such as toilets, change rooms and eating areas
- Emergency evacuation
- Temporary site accommodation
- Construction activities

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H 7.2 Excavations [CR13]

Section 1 of this regulation states that this work must be carried out under the supervision of a competent person, who has been appointed in writing. All the requirements of CR 13 shall be met. For inspection of excavations, attention is drawn to section 3(h), the records of which must be available on site.

Contractor shall consider the safety and health of the surrounding livestock and ensure that excavations that can be closed immediately are closed and that those that cannot be closed are solidly barricaded with warning signs.

H 7.3 Demolition [CR14]

Section 1 of this regulation states that this work must be carried out under the supervision of a competent person.

Contractor must in terms of section 4 (d), where the stability of an adjoining building road is likely to be affected by the removal of the guardrails (demolition), take steps to ensure the stability of such road and safety of persons.

Contractor must also ensure that no material is dropped to any point, which falls outside the exterior walls of the structure, unless it is effectively protected.

H 7.4 Batch Plants [CR 20]

Contractor will be collecting stone materials from a quarry at a mining area, to an established batch plant, where the contractor will need to comply to such mines health and safety requirements.

In terms of section 1 Contractor must appoint a competent person, for supervising such batch plant in writing and such person must be aware of the dangers involved within the operation and ensure precautionary measures are taken in the interest of health and safety.

All requirements of CR 20 shall be met if applicable.

H 7.5 Explosive powered tools [CR 21]

Section 2(b) of this regulation states that these tools must be cleaned and inspected daily before use by an appointed, competent person and a trained person (3b) can only operate them.

Contractor must bear in mind that there might be any live explosives buried under at the quarry and ensure that an effective risk assessment is taken into consideration prior any mining.

All the requirements of CR 21 shall be met.

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H 7.6 Cranes [CR 22] including lifting machines and lifting tackle [GMR 18]

If applicable, the requirements of CR 22 shall be met. If a mobile crane or other mobile plant is hired, only approved hire companies shall be contracted to provide such equipment. The Construction Supervisor shall ensure compliance of the provider to these regulations. In particular attention is drawn to the competence and fitness of the operator [section 1(d)] and the inspection of the equipment [section 1(j)]. As far as GMR 18 is concerned, compliance to these requirements will be the responsibility of contractors using any lifting equipment and lifting tackle. Especially in lifting items such as mobile offices brought during site establishment.

H 7.7 Construction vehicles and mobile plant [CR 23]

It will be the responsibility of each contractor on site to ensure compliance of their construction vehicles and mobile plant to these regulations.

Each contractor will have to take into consideration the busyness of provincials roads and the public road users within, and make it a priority that such vehicles and plants are in perfect working conditions and road worthy in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996).

Contractor must ensure that all the tipper trucks that will be loading rocks from the quarry are well guarded, to prevent loaded rocks from falling.

This includes vehicles to be used for transporting personnel to and from site, which will be subject to relevant requirements such as licensing and roadworthiness checks. In addition, the following will apply:

Safe transport for personnel working on the project to and from the workplace, which shall include proper seating, side restraints and cover.

Road safety principles shall be adhered to on and off site.

If a mobile crane or other mobile plant is hired, only approved hire companies shall be contracted to provide such equipment. The Construction Supervisor shall ensure compliance of the provider to these regulations. In particular attention is drawn to the competence and fitness of the operator [section 1(d)] and the inspection of the equipment [section 1(j)].

H 7.8 Electrical Installations [CR 24], including [EIR] and [EMR]

The requirements of these regulations shall be met as required, by the appointed electrical contractor. A competent person will be appointed for inspection and control of all temporary electrical installations as per CR 24(d) and (e) respectively.

H 7.9 Use and storage of flammable liquids [CR 25], and [GSR 4]

All the requirements of CR 25 shall be met and attention is drawn to the storage requirements of flammable liquids as specified in GSR 4.

H 7.10 Water Environments [CR 26]

All requirements of CR 26 shall be met if applicable.

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H 7.11 Housekeeping [CR 27] including [ERW(6)]

All contractors shall ensure that housekeeping standards as per these regulations shall be maintained at all times. The principal contractor is responsible to ensure that building waste and debris is removed at regular intervals and not allowed to build up to any degree. The building's domestic and compactable waste removal systems may not be used for this purpose under any circumstances.

H 7.12 Stacking of Materials [CR 28] including [GSR(8)]

All contractors shall ensure that materials are only stored in defined and allocated storage areas and that materials being stored are stacked in accordance with sound stacking principles as per these regulations.

H 7.13 Fire precautions [CR 29]

All contractors on site will comply fully with the requirements of this regulation. In particular, the principal contractor will be responsible for the evacuation plan (section (I)) the details of which will be imparted to contractors, visitors etc. through the site induction.

H 7.14 Construction welfare facilities [CR 30] including [FR 2- 9]

The principal contractor shall be responsible for implementing this regulation and shall ensure that adequate facilities are provided for the personnel on site in terms of the following:

- At least one shower for every 15 workers
- At least one sanitary facility for every 30 workers
- Changing facilities for each sex
- Sheltered eating areas
- Potable water.

On-site chemical toilets must be serviced daily.

No food preparation shall be conducted on site. Eating and drinking will only be permitted in the designated eating areas, which must be provided with adequate seating. Waste bins shall be strategically placed and cleared regularly.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B12.12 Contractor's initial obligations in respect of the Occupational Health And Safety act (OHS), General Safety Regulations 1986, Covid-19 Regulations and Construction regulations 2014
Lump Sum

The full amount will be paid in one instalment only once: -

The contractor has notified the Provincial Director of the Department of Labour in writing of the project and to obtain construction permit.

The contractor has made the required initial appointments of employees and sub-contractors and their entry medical fitness certificates are in place.

The client has approved the contractor's Health and Safety Plan.

Compliance with the Covid-19 Regulations

The contractor has set up his Health and Safety File.

All employees are provided with PPE

Compliance with General Safety Regulations is met

All general site posters and signage in terms of GSR is met

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations, 2014) at all times for the full duration of the Contract, as described in clause B1228 of the project specifications. The successful Tenderer shall provide the Engineer with a complete breakdown of this tendered sum.

This sum will be paid to the Contractor in equal monthly amounts subject to proper and/or substantial compliance.

B12.13 Submission of the Health and Safety File.....Lump Sum

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements with regard to the Health and Safety File and Approval.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B4 SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**B1301 GENERAL REQUIREMENTS****Legal and contractual requirements and responsibility to the public***ADD THE FOLLOWING PARAGRAPH:*

"The Contractor shall comply with all statutory and contractual requirements of the Environmental Management Programme, as included in the Project Document.

Separate items will be scheduled under payment item B13.01 (The contractor's general obligations) to cover the following components of the Contractor's preliminary and general costs, Contractor's General items (Clause 1.1.1.21 of the Conditions of Contract):

fixed,
value-related and
time-related in respect of the

Mobilisation Period:

Shall be the number of days as specified in Clause 1.1.1.35 in the Contract Data.

The Contractor shall note that on this Contract all costs associated with this period shall be deemed to be included in other rates.

2. Construction Period:

Shall be the number of days within which the Contractor has to complete the construction of the Works as specified in Clause 1.1.1.36 in the Contract Data, and as adjusted by such extensions of time or acceleration as may be allowed in terms of the Contract."

*ADD THE FOLLOWING NEW SUBCLAUSE:***"(d) Contractor's ablution facilities**

The Contractor shall, at each construction section, provide sufficient portable chemical latrine units. Furthermore, the Contractor shall also provide a portable chemical latrine unit at each temporary traffic control facility. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the Engineer. 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."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B1301 PAYMENT**Item****B13.01 The Contractor's general obligations:**

DELETE SUBITEM(c) AND REPLACE WITH THE FOLLOWING:

- "(c) Time related obligations:
- | | |
|--------------------------|--------|
| (i) Mobilisation Period | days |
| (ii) Construction Period | month" |

INSERT THE FOLLOWING PARAGRAPH AFTER THE FOURTH PARAGRAPH:

"Should the combined total tendered for subitems (a), (b), and (c) exceed 15% of the Tender Sum (excluding CPA, contingencies and VAT), the tenderer shall state his reasons in writing for tendering in this manner. The tenderer's attention is drawn to Form B1: Contractor's establishment on Site (bound in this Volume) to be completed by the tenderer."

After the paragraph starting with "Should the combined" Insert the following:

"In the 11th paragraph, the following amendments apply:

Delete "from the date on which the contractor has received the letter of acceptance in terms of clause 12 of the general conditions of contract" *and replace with* "for subitem 13.01(c)(i) Mobilisation Period from the Commencement Date in terms of Clause 1.1.1.5 of the General Conditions of Contract, until the end of the Mobilisation Period and for subitem 13.01(c)(ii) Construction Period from the end of the Mobilisation Period.

Payment for the Mobilisation Period shall only be made if such item B13.01(c)(i) is included in the Bill of Quantities".

DELETE THE SEVENTEENTH PARAGRAPH COMMENCING WITH "The tendered rate per month for subitem B13.01(c) ..." *AND REPLACE WITH:*

"The tendered rate per month for sub item B13.01(c) represents full compensation for that part of the Contractor's general obligations which is mainly a function of construction time. The tendered sum 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 any extension thereof as provided in Clause 5.12 of the General Conditions of Contract, provided that –

Should the works be certified as having been completed before the Due Completion Date, the Contractor will then be entitled to payments in regard to the unexpired period up to the approved Due Completion Date."

ADD THE FOLLOWING AT THE END OF THIS PAY ITEM:

"The amount payable to the Contractor for time-related costs arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of Clause 5.12.3 of the General Conditions of Contract, shall be calculated by taking account of only payment items for which the unit of measurement is 'month'. All pay items for which the unit of measurement is 'month' shall be deemed to be based upon an average of 30 days per month."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B13.01 Contractor's time related obligation in respect of the month Occupational Health and Safety Act and Construction Regulations.

Payment of the rate per month shall include full compensation for all the contractor's obligation relevant to the Occupational Health and Safety Act No. 85 and Amendment Act No.181 of 1993, General Safety Regulations 1986 and OHSA 1993 Construction Regulations 20014 issued on August 2014 by the Department of Labour.

The rate must also include a full-time Traffic Safety Officer who will be full-time on site for the duration of the contract.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B6 SECTION 1500: ACCOMMODATION OF TRAFFIC**B1501 SCOPE**

ADD THE FOLLOWING:

"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**Safety**

ADD THE FOLLOWING:

"Should the Contractor park any of his vehicles within the road reserve at night, it shall be done in such a way that the vehicle is more than 6 m away from the shoulder of the road and it shall be properly illuminated and signposted to ensure safe passing by motorists."

Providing temporary deviations

ADD THE FOLLOWING PARAGRAPH:

"The Contractor shall keep the provincial traffic police and the Engineer fully informed of changes in the normal traffic flow and obtain their approval for these changes."

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." Contractor must ensure that such temporary deviation is safe and drivable for motorist and must be maintained timeously.

Traffic Safety Officer

ADD THE FOLLOWING AFTER THE SECOND PARAGRAPH:

"The Contractor shall submit a Curriculum Vitae of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall make himself available to discuss road safety and traffic accommodation matters whenever required by the Engineer."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

REPLACE SUBSUBCLAUSES (ii) AND (iii) 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 to identifiable permanent features located along the site of the Works.

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

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

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

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

The Traffic Safety Officer shall be equipped with a cellular telephone and shall have a vehicle and three labourers at his disposal 24 hours a day and he shall be directly answerable to the Contractor's Site Agent. The traffic safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel in accordance with the requirements of Part 13 of Volume 2 of the South African Road Traffic Signs Manual. 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 the limits of the Contract. The provision of the road safety vehicle, driver, three labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the Contractor's establishment on Site."

ADD THE FOLLOWING SUBSUBCLAUSES:

- "(ix) Ensure that all obstructions related to the Contractor's activities be removed before nightfall where applicable and instructed by the Engineer and that the roads are safe for night traffic.

The Traffic Safety Officer shall also be responsible for arranging 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 and for the erection and maintenance of all traffic signs necessary for the accommodation of traffic."

ADD THE FOLLOWING SUBCLAUSES:

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

"(j) 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 public traffic, 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 deduct penalties as follows:

A fixed penalty of **R5 000,00** per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the Standard Specifications and/or the Project Specifications.

In addition, a time-related penalty of **R500,00** per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

Public traffic

The travelling public shall have right of way on public roads. The Contractor shall arrange his activities so as to bring about the least possible disruption to the traffic on the roads on which he works. The closure of one lane of the road shall only be done:

on written instruction of the Engineer,
after approval of a specific accommodation of traffic detail,
subject to all the road signs and markings being implemented and
subject to such other conditions as the Engineer would reasonably require to ensure the safety of the travelling public.

The closure of more than one lane of traffic will only be considered in exceptional cases. The Engineer shall determine the maximum period for which such a closure may be allowed. It is also an express provision that such an eventuality will be controlled by the traffic authority concerned. Should the traffic authority not be available for such control, the Contractor shall control such an event, provided that he has proven that he has exercised his best endeavours and taken all actions timeously to involve the traffic authority to control the traffic. No additional payment will be made for such control by the Contractor and the rates tendered for Section 1500 will be deemed to include full compensation for all costs pertaining to such control.

Failure or refusal on the part of the Contractor to take the necessary steps to ensure the safety and convenience of the public in accordance with these specifications or as required by the Engineer or the traffic authorities shall be sufficient cause for the closing down of all work under this Contract until all provisions prescribed have been complied with to the satisfaction of the Engineer.

Handing over the Site

The road reserves of all the roads to be constructed under this Contract will be handed over to the Contractor at commencement of the Contract. The Contractor will be permitted to work on any structure or service provided that a free and safe flow of traffic is maintained at all times and that the requirements of the Specifications are complied with.

The Contractor's programme for the accommodation of traffic and any proposed deviation from the approved programme shall be subject to the Engineer's approval."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

"All temporary road signs, devices, sequences, layouts and spacings shall comply with the requirements set out in the National Road Traffic Act, 1996 (Act No 93 of 1996), the National Road Traffic Regulations, 2000 of the relevant authorities and on the Drawings or as instructed by the Engineer.

The Contractor shall indemnify the Employer against all proceedings, claims, actions, damages and costs which may arise from or be related to the absence or improper functioning or placement of road traffic signs, barricades, traffic-control facilities, channelization devices and warning devices.

REPLACE THE THIRD PARAGRAPH WITH THE FOLLOWING:

"The type of construction, spacing and placement of traffic-control devices shall be in accordance with Volume 2 of The South African Road Traffic Signs Manual (in particular Part 13), these special provisions and the Drawings. The recommended arrangements of the traffic-control devices illustrated in Part 13 of the above Manual and/or Drawings shall not be departed from without prior approval of the Engineer. The arrangements expected to be most commonly used on 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."

Traffic-control devices

REPLACE THE SECOND SENTENCE OF THE SECOND PARAGRAPH WITH THE FOLLOWING:

"Two-way communication systems in good working condition shall be available at both ends of those sections of the works where the road is barricaded and only one-way traffic is accommodated. A standby communication system set in good working order shall also be made available."

ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"The Contractor shall provide portable shelters to protect his personnel who regulate the STOP and GO-RY signs against the elements. The personnel regulating the traffic shall at all times wear reflective safety jackets."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Road signs and barricades

ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"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, or lost, or stolen.

All temporary road signs shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted ballasting of the sign supports shall be by using 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 for in the tendered rates for the various types of temporary road signs.

The traffic-control devices, temporary signs and devices required in the Contract are those designated in Part 13 of Volume 2 of the South African Road Traffic Signs Manual.

No work may proceed on any section where accommodation of traffic is required until such time as the relevant requirements with regards to signposting are met and written approval of the Engineer is obtained. The Contractor shall keep sufficient surplus signs, delineators and barricades on the site to allow for the immediate replacement of damaged or missing items, in any case, within three hours of instructions having been given by the Engineer. Delineators shall be of the flexible plastic reversible variety and not of the rigid metal variety.

Should the Contractor fail to respond to an instruction to re-erect a road sign within three hours or fail to comply to the requirements, the work on that section will be suspended without any compensation to the Contractor."

Channelization devices and barricades

ADD THE FOLLOWING PARAGRAPHS:

"Drums shall not be used as channelization devices.

TW 401 and TW 402 delineators shall comply with the following requirements:

They shall be manufactured from a flexible material and shall comply with SANS 1555:2011. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilized by means of sandbags when used on the road.

The blade shall be retro-reflectorised, with Class I yellow sheeting on the side facing oncoming traffic.

It shall be nominally 1 000 mm high x 250 mm wide and the bottom edge of the delineator shall not be more than 200 mm above the road surface.

(iv) The delineators shall be subject to the approval of the Engineer.

The maximum spacing between centres of delineators shall be as shown on the Drawings or as directed by the Engineer.

Barriers

ADD THE FOLLOWING:

"Guardrails mounted on steel drums shall not be used as barriers."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Warning devices

ADD THE FOLLOWING TO THE FIRST PARAGRAPH: "The

flashing lights shall have a minimum intensity of 55 W."

ADD THE FOLLOWING AFTER THE FIRST SENTENCE OF THE SECOND PARAGRAPH:

"The warning boards shall be at least 1,5 m above ground level."

ADD THE FOLLOWING AFTER THE LAST PARAGRAPH:

"All construction vehicles and Plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. Clearance permits for all vehicles and Plant shall be obtained from the Engineer before being allowed onto the Site.

Rotating lights shall have an amber lens with a minimum height of 200 mm and shall be mounted in order to be clearly 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 LDVs and cars operating on Site shall also be equipped with rotating amber flashing lights which shall be placed so as to be clearly visible and operated continuously while the vehicles are manoeuvring in or out of traffic or are travelling on or parked alongside roads open to public traffic.

The Contractor shall provide the Engineer with four (4) rotating amber-coloured flashing lights. These lights shall be at least 200 mm high, shall have magnetic bases and must be equipped with fittings to draw power from a cigarette lighter point in a vehicle. No separate payment will be made for the supply and maintenance of these flashing lights and full compensation therefor shall be included in the rates tendered for in Section 1500.

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 supply 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."

ADD THE FOLLOWING SUBCLAUSES:

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

"(g) Safety jackets

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 replaced immediately by the Contractor.

The Engineer, his personnel and visitors shall wear safety jackets at all times when they move about the Site. The Contractor shall provide the Engineer with safety jackets. The safety jackets shall be orange in colour and shall be submitted for the Engineer's approval before they are purchased. Payment for the safety jackets will be made under item B15.14(b).

(h) Other signs or facilities

The Engineer may instruct the Contractor to provide any other road sign, reflective tape, etc not measured in standard pay items. The road signs shall conform to the requirements of Part 13 of Volume 2 of the South African Road Traffic Signs Manual, or specification provided by the Engineer.

The Contractor shall inform the general public of the intended road works, construction period and accommodation of traffic proposal through press releases in local and provincial newspapers."

B1222 USE OF EXPLOSIVES

REPLACE PARAGRAPH (g) WITH THE FOLLOWING:

"(g) The Contractor shall, seven (7) days before each blasting operation is carried out, advise the Engineer thereof in writing. Any such blasting operation shall be confirmed with the Engineer twenty-four (24) hours prior to execution. The Contractor shall make all the necessary arrangements to keep the public and the provincial traffic authorities fully informed with regard to the closures of the road for blasting purposes."

ADD THE FOLLOWING PARAGRAPH:

"(h) Where blasting needs to be carried out within the road reserve of the existing road, it shall only be allowed between 10:00 and 14:00. The road may not be closed for a period longer than thirty (30) minutes during which time all blasting shall be carried out, debris removed from the road surface and the road made safe and passable for traffic."

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Annexure 1

No.	Inspection	By who	Frequency	Record
1	Structures	Appointed person	As required for design compliance	Checklist
2	Formwork & Support work	Appointed person	Before, during, after loading, then daily	Checklist
3	Excavations	Appointed person	Daily before shift, plus other	Checklist
4	Traffic Accommodation	Appointed person	Daily	Inventory / checklist
5	Suspended Platforms	Appointed person	Manufacturer's spec, not more than 3 mo.	Inventory / checklist
6	Material Hoists	Appointed person	Daily	Checklist
7	Construction Vehicles	Appointed person	Daily	Inventory / checklist
8	Electrical Installations	Appointed person	Weekly	Inventory / checklist
9	Explosive Powered Tools	Appointed person	Daily	Inventory / checklist
10	Fire Equipment	Appointed person	Manufacturer's spec	Inventory / checklist
11	First Aid Box Contents	First Aider	Monthly	Inventory
12	Ladders	Competent person	Monthly	Inventory / checklist
13	Lifting Tackle	Appointed person	3-monthly	Inventory / checklist
14	Hand Tools	Appointed person	Monthly	Inventory / checklist
15	Portable Electrical Equipment	Appointed person	Monthly	Inventory / checklist
16	Gas Bottle Sets (OxyAcetylene)	Appointed person	Monthly	Inventory / checklist
17	Safety Harnesses	H&S Rep / Safety Officer	Monthly	Inventory / checklist
18	Health & Safety Rep	H&S Rep / Safety Officer	Monthly	Checklist
19	Good Housekeeping	H&S Rep / Safety Officer	Monthly	Report
20	Stacking and Storage	Appointed person	Monthly	Report
21	Change rooms and toilets	H&S Rep / Safety Officer	Monthly	Inventory / checklist

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Annexure 2

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

(ACT NO 85 OF 1993)

REGULATION 9 OF THE GENERAL ADMINISTRATIVE REGULATIONS

RECORDING AND INVESTIGATION OF INCIDENTS

A. RECORDING OF INCIDENT

Name of employer.

Name of affected person

Identity number of affected person

4 Date of incident

5. Time of incident.

6
Part of the body
affected.*7
Effect on the person.*8
Expected period of
disablement.*9
Description of Occupation/type of work performed/exposure*10
disease**

Head or Neck	Eye	Trunk	Finger	Head	
Arm	Foot	Leg	Internal	Multiple	
Sprains or strains	Contusions or wounds	Fractures	Burns	Amputation	
Electric shock	Asphyxiation	Unconsciousness	Poisoning	Occupational diseases	
0-13 days	2-4 weeks	>4-16 weeks	>16-52 weeks	>52 weeks or permanent disablement	Killed

Was the incident reported to the Compensation
Commissioner? Make a cross in the appropriate square

Yes

No

Was incident reported to the police?*

Yes

No

SAPS office and reference
to be completed in case of a fatal incident.

*

in case of a hazardous chemical substance, indicate substance
exposed to

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

B. INVESTIGATION OF THE ABOVE INCIDENT BY A PERSON DESIGNATED THERETO	
1	Name of investigator _____
2	Date of investigation _____
3	Designation of investigator _____
4	Short description of incident _____
5	Suspected cause of incident _____
6	Recommended steps to prevent a recurrence _____
Signature of investigator _____ Date _____	
C. ACTION TAKEN BY THE EMPLOYER TO PREVENT THE RECURRENCE OF A SIMILAR INCIDENT	

Signature of employer _____ Date _____	
D. REMARKS BY HEALTH AND SAFETY COMMITTEE	
Remarks _____	

Signature of chairman of health and safety committee _____ Date _____	

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

Annexure 3

Definition of Mandatary

Includes an agent, a contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or user.

Occupational Health and Safety Act (No. 85 of 1993)

You are requested to, as far as you reasonably can, comply with the requirements of the OHS ACT and Regulations.

Your attention is drawn to “**General Duties of Employers to their Employees**” as required by Sect 8 of the Act.

You are required to:

Sign a written “**Agreement with Mandatary**” as required by Sect 37(1)(2) of the Act with us before you

3.1 **commence any work on my / our premises / site.**

3.2 **Provide the client / principal contractor** with a documented health and safety plan.

Provide the **client / principal contractor** with written appointment of the person who is going to supervise the **3.3 construction work as per Construction Regulation 6(1).**

Provide the **client / principal contractor** with written designation of your nominated Health and Safety 3.4 Representative as per Sect 17(1).

If you employ more than five (5) persons, you are required to provide your own First Aid Box. (General Safety 2.5 Regulation 3 (2).)

If you employ more than ten (10) persons, you are required to provide your own qualified First Aider as per 2.6 General Safety Regulation 3(4).

2.7 When working with hazardous chemical substances, comply with Hazardous Chemical Substances Regulation 3. *Note: Asbestos and Lead regulations are separate.*

2.8 When using a Materials Hoist , comply with Construction Regulation 17.

2.9 When using Lifting Machines and Lifting Tackle, comply with Driven Machinery Regulation 18.

2.10 When using Explosive Powered Tools, comply with Construction Regulation 19.

2.11 When using Scaffolding, Formwork and support work, comply with Construction Regulation 10 and 14.

2.12 When Excavating or Demolishing, comply with Construction Regulation 11 and 12.

2.13 When Welding, Flame Cutting, Soldering, comply with General Safety Regulation 9.

2.14 When working in confined spaces, comply with General Safety Regulation 5.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

You are responsible for providing your own **legal safety documents and registers** to comply with the Act's requirements. *A copy of the OHS Act of 1993 should be available in the main contractor's office.*

You are required to comply with General Safety Regulation 2(1) to (7) and provide employees with: personal protective equipment which will allow them to carry out their work in a safe manner, e.g. hard hats, safety belts, gloves, safe footwear, eye protection, ear protection, waterproof clothing etc.

Reporting of Incidents and Occupational Diseases shall be done as per General Admin. Regulation 6. (Also see Sect 24 of the Act.)

Compensation for Occupational Injuries and Diseases Act (No 130 of 1993)

You are required to provide the **client** proof of registration with the Compensation Commissioner/Federated Employer's Mutual within seven (7) days after signing this agreement. Failure to do so would result in the **client** notifying the agent of the Commissioner to investigate and make an assessment of your wage return and the applicable levy you have to pay, which will be liable for a deduction from your monthly progress payments and paid over to the Commissioner. (Copies of proof of payment will be provided to the contractor) **See Section 89(1) of the COID Act.**

Annexure 3A

OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993

Medical Certificate of Fitness

CONSTRUCTION REGULATIONS, 2014

Name of Employee_____ ID Number_____ Co Number_____

Occupation e.g General worker, Welder, Bricklayer, Steel fixer, Mobile crane operator, etc	* Possible Exposure e.g Noise, Heat, Fall risk, Confined spaces, etc	* Job Specific Requirements e.g Operating mobile crane, Digging trenches, Erecting formwork and support work etc	* Protective Clothing e.g Dust respirator, Welding gloves, etc

The Employer to complete the information in the spaces marked with an * before sending the Employee for a medical examination Declaration by the Medical Examiner: I certify that I have, by examination and testing, using the above criteria specified by the employer, satisfied myself that the abovementioned employee is fit to perform the duties as described by the employer in the matrix above.

Occupational Medicine Practitioner / Occupational Health Nursing Practitioner: _____

Signature _____ Practice Number _____ Date _____

Address _____

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

AGREEMENT WITH MANDATARY In terms of Section 37 (1) and (2)

Section 37 (1)

Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then unless it is proved that -

- (a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
- (b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and
- (c) all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question,

the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

Section 37 (2) The provisions of subsection (1) shall "*mutatis mutandis*" apply in the case of a mandatory of any employer or user, except if the parties have agreed in writing to the arrangements and procedures between them to ensure compliance by the mandatory with the provisions of the Act.

I, (Responsible person) for, (Company) appoint, (Contractor) at the following premises / site:

Period:

AUTHORISED SIGNATORY FOR THE COMPANY (CLIENT)

Signature

Designation

Date

ACCEPTANCE SIGNATORY FOR THE CONTRACTOR

I, hereby acknowledge receipt of and accept and understand the requirements of this agreement and shall ensure compliance with the OHS Act 85, of 1993.

Signature

Designation

Date

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

BASELINE RISK ASSESSMENT

RISK AND ASSURANCE STANDARD RISK MATRIX	Hazard Effect / Consequence				
Loss Type	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
Timeline	No impact on overall project timeline	May result in overall project timeline overrun of less than 5%	May result in overall project timeline overrun of between 5% and less than 20%	May result in overall project timeline overrun of between 20% and less than 50%	May result in overall project timeline overrun of 50% or more
Budget	No impact on the budget of the project	May result in overall project budget overrun of less than 5%	May result in overall project budget overrun of between 5% and less than 20%	May result in overall project budget overrun of between 20% and less than 50%	May result in overall project budget overrun of 50% or more
Investment Return – NPV loss	Less than R25 000	R25 000 to less than R100 000	R100 000 to less than R1 000 000	R1 000 000 to R10 000 000	R10 000 000 or more
Quality	No impact on quality	Minimal quality issues that can be addressed in a short timeframe with minimal interactions	Some quality issues that requires immediate management action	Significant quality issues that requires senior project management interaction	Significant quality issues that requires sponsorship intervention with significant resource and cost implications for rework
Safety / Health	First aid case / Exposure to minor health risk	Medical treatment case / Exposure to major health risk	Lost time injury / Reversible impact on health	Single fatality or loss of quality of life / Irreversible impact on health	Multiple fatalities / Impact on health ultimately fatal
Environment	Minimal environmental harm – L1 incident	Material environmental harm – L2 incident remediable short term	Serious environmental harm – L2 incident remediable within LOM	Major environmental harm – L2 incident remediable post LOM	Extreme environmental harm – L3 incident irreversible
Legal & Regulatory	No legal impact	Minor legal concerns with minor impact	Some legal concerns with manageable level of impact	Serious legal concerns and significant impact on operations	Legal noncompliance with risk of shutdown of operations with significant cost impacts

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

<i>Likelihood</i>		<i>Risk Rating</i>				
5 Almost Certain	The unwanted event has occurred frequently; has a 90% and higher probability of reoccurring	Medium (11)	Significant (16)	Significant (20)	High (23)	High (25)
4 Likely	The unwanted event has a probability of between 60% and less than 90% of occurring	Medium (7)	Medium (12)	Significant (17)	High (21)	High (24)
3 Possible	The unwanted event has a probability of between 30% and less than 60% of occurring	Low (4)	Medium (8)	Significant (13)	Significant (18)	High (22)
2 Unlikely	The unwanted event has a probability of between 1% and less than 30% of occurring	Low (2)	Low (5)	Medium (9)	Significant (14)	Significant (19)
1 Rare	The unwanted event has never occurred, has a probability of less than 1% of occurring	Low (1)	Low (3)	Medium (6)	Medium (10)	Significant (15)

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

RISK IDENTIFICATION, ASSESSMENTS AND MANAGEMENT

The Principal Contractor must cause preliminary hazard identification and risk assessment to be performed under the leadership of a competent person before commencement of construction work. On this project detailed task- specific risk assessments based on the proposed sequence of work (method of work) must be compiled. Generic risk assessments will not be accepted.

The assessed risks, together with written safe work procedures for the 'medium & high-risk' rated activities must form part of the coherent site-specific health and safety plan submitted for approval by House of Safety. The risk assessments must include:

- A list of hazards identified as well as potentially hazardous tasks;

- The risks which may result based on the list of hazards and tasks;

- A set of safe work procedures to be implemented with the aim of eliminating or if this is not possible, reducing and/or controlling the risks as far as reasonably practicable to ALARP (as low as reasonably practicable);

- A monitoring and review procedure of the risk assessments as they change

i.e., how will the risk assessments be reviewed, when will they be reviewed and by whom.

The Principal Contractor must ensure that all Contractors inform, instruct and train their workers regarding any hazards, the associated risks and the related safe work procedures to be implemented before any work commences and thereafter at regular intervals as the risks change and as new risks develop. This training should be carried out in the form of toolbox health & safety talks.

Contractors must conduct their own toolbox talks and submit proof of these talks in the form of attendance registers to the Principal Contractor at least every two weeks. Every worker on site must undergo such toolbox safety talks with the attendance registers kept in the Principal Contractor's safety file.

Contractors must conduct their own hazard identifications and risk assessments specific to their operations and forward a copy to the Principal Contractor. The Principal Contractor when required must report on the status of these Contractor risk assessments to the Maruleng Municipality i.e. at audits.

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PART C4: SITE INFORMATION

C4.1: LOCALITY PLAN

C4.2: CONDITIONS ON SITE: GEOTECHNICAL REPORT

C4.3: BID DRAWINGS

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

C4.1: LOCALITY PLAN**Site Inspection**

The bidder shall inform him/herself on the nature of the site and inspect the site.

The Engineer will consider a bid only if the site inspection and/or bidder's meeting arranged by the Engineer has been attended by a representative who must;

- Be suitably qualified to comprehend the implications of the work involved and
- Be the bidder him/herself or a person in the direct employ of the bidder.

Site Information

A geotechnical investigation is done and concluded the information will be provided to the awarded bidder.

Site Locality

The project is located in Madeira Villages about 58km east of Tzaneen in Maruleng Local Municipality of Mopani District Municipality

The Coordinates for the site are:

	Latitude (S)	Longitude (E)
Start	24 ⁰ 14'53.65"	30 ⁰ 25'39.00"
Halfway	24 ⁰ 15'35.52"	30 ⁰ 25'41.43"
End	24 ⁰ 15'01.45"	30 ⁰ 26'56.79"

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SITE LOCATION



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C4.2: CONDITIONS ON SITE: GEOTECHNICAL REPORT**Description of site under investigation**

The three streets with a total length of 7.4 km road under investigation starts on the provincial road (D21) go through the village of Madeira and then joins the provincial road again (D21) next to Sekororo Hospital entrance, the other two streets are within the main proposed road just to accommodate the school

The road is located within the rural area and there is evidence of storm water running through and long some sections of the street with underground water on the selected part of the road.

The in-situ materials on the proposed road are silty sand and semi-clayed sand and showed evidence that subsoil drainage system will have to be constructed on other part of the road. The in-situ classification of material is G6, G7, G8 and G9 and is deemed to poor. The existing services along the route of the proposed road does not interfere much with the alignment of the road

Proposed pavement design

For pavement design considerations, the pavement is classified as a category C road and design equivalent traffic being type ES 1;

The roads will be for all size of trafficked, with mainly cars on daily basis with light delivery and heavy delivery vehicles;

The prediction period (design life) of the road is taken to be 12 years;

Natural gravel suitable for stabilization of the subbase and base layers should be available from borrow pits around the area;

For the upper and lower subgrade structure, the proposal is that subject to the results of the soil, a new subgrade layer be constructed before the subbase with the lower subgrade being that of the ripped and re-compacted in-situ;

A cement subbase laid to the required camber formation;

The following pavement design is proposed for the upgrading from gravel to paving:

Material Standards			
Layer no	Description	TRH14 Material type	Layer thickness
1	Interlock Paving Blocks		80 mm
2	Sifted river Sand		20 mm
3	Stabilised base course	C3	150 mm
4	Subbase layer	C4	150 mm
5	Selected subgrade-insitu	G7	150 mm
6	Shoulder fill layer	G7	150 mm
7	Fill layers	G9	150 mm

CONSTRUCTION OF MADEIRA ACCESS ROAD PAHSE 01

The following pavement design is proposed for the intersection and connections of D21 RAL:

Material Standards			
Layer no	Description	TRH14 Material type	Layer thickness
1	Hot Mix Asphalt		50 mm
2	Base course	G1	150 mm
3	Stabilised Subbase layer	C3	150 mm
4	Selected subgrade	G6	150 mm
5	Selected insitu-Roadbed	G9	150 mm
6	Shoulder fill layer	G7	150 mm

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PART C4: SITE INFORMATION

C4.3: BID DRAWINGS

CONSTRUCTION OF MADEIRA ACCESS ROAD PHASE 01

PART C4.3: DRAWING

The contract drawings as listed below are included in this tender document:

DRAWING No: DESCRIPTION

MADEIRA ACCESS ROAD DRAWINGS

MCE-081/00	LOCALITY MAP & LIST OF DRAWINGS
MCE-081/01	LAYOUT
MCE-081/05	LAYOUT & LONGITUDINAL SECTION: CH 2100 TO CH 2800
MCE-081/06	LAYOUT & LONGITUDINAL SECTION: CH 2800 TO CH 3500
MCE-081/07	LAYOUT & LONGITUDINAL SECTION: CH 3500 TO CH 4200
MCE-081/08	LAYOUT & LONGITUDINAL SECTION: CH 4200 TO CH 4900
MCE-081/09	LAYOUT & LONGITUDINAL SECTION: CH 4900 TO CH 5600
MCE-081/10	LAYOUT & LONGITUDINAL SECTION: CH 5600 TO CH 6300
MCE-081/11	LAYOUT & LONGITUDINAL SECTION: CH 6300 TO CH 6665
MCE-081/14	STREET CROSS SECTIONS: CH 2120 – CH 3200
MCE-081/15	STREET CROSS SECTIONS: CH 3220 – CH 4220
MCE-081/16	STREET CROSS SECTIONS: CH 4240 – CH 5200
MCE-081/17	STREET CROSS SECTIONS: CH 5220 – CH
MCE-081/18	6060 STREET CROSS SECTIONS: CH 6080 –
MCE-081/19	CH 6665 CULVERT CROSS SECTIONS
MCE-081/20	TYPICAL CROSS SECTIONS & PAVEMENT DESIGN
MCE-081/21	CONCRETE DETAILS FOR INLET AND OUTLET STRUCTURES FOR PIPE C.
MCE-081/22	REINFORCEMENT DETAILS FOR INLET AND OUTLET STRUCTURES FOR PIPE
MCE-081/23	C. CONCRETE DETAILS FOR INLET AND OUTLET STRUCTURES FOR PRECAST PORTAL CULVERTS (90 degree TO ROAD)
MCE-081/24	REINFORCEMENT DETAILS FOR INLET AND OUTLET STRUCTURES FOR PRECAST PORTAL CULVERTS: 90 degree AND SKEW TO ROAD (SHEET 1 OF 2 SHEETS)
MCE-081/25	REINFORCEMENT DETAILS FOR INLET AND OUTLET STRUCTURES FOR PRECAST PORTAL CULVERTS: 90 degree AND SKEW TO ROAD (SHEET 1 OF 2 SHEETS)
MCE-081/26	BOX CULVERT FLOOR SLAB DETAILS
MCE-081/27	TRAFFIC SIGN LAYOUT FOR DEVIATIONS
MCE-081/28	ROAD MARKING DETAILS: SHEET 1 OF 3
MCE-081/29	ROAD MARKING DETAILS: SHEET 2 OF 3
MCE-081/30	ROAD MARKING DETAILS: SHEET 3 OF 3
MCE-081/31	ROAD SIGN ERECTION DETAIL
MCE-081/32	STOP AND ROAD SIGN DETAILS
MCE-081/33	DETAIL OF SPEED HUMPS AND BUS
MCE-081/34	STOPS CONTRACT NAME BOARD
MCE-081/35	LAYOUT & LONGITUDINAL SECTION: STREET 2: CH 0 TO CH 280
MCE-081/36	LAYOUT & LONGITUDINAL SECTION: STR 3: CH 0 TO CH 297 & SCHOOL A. CH 0 TO CH 42
MCE-081/37	STREET CROSS SECTIONS: STR2 CH 0 – CH 281 AND STR3 CH 0 – CH 297 & SCHOOL ACCESS CH 0 – CH 43
MCE-081/38	TYPICAL CROSS SECTION & PAVEMENT DESIGN: STREETS 2 & 3 & SCHOOL A.