



## MAKHADO MUNICIPALITY

CIDB CLASS GRADING 7CE OR HIGHER

**TENDER NO: 70 of 2022**

**FOR: MAKATU TO TSHIKOTA ACCESS ROAD**

**PROCUREMENT DOCUMENT**

**OCTOBER 2022**

**NAME OF BIDDER :** .....

**TENDER SUM :** .....

**PREPARED BY:**



**DANE PROJECTS (PTY) LTD**  
32 King Edward Drive  
Medipark  
Tzaneen, 0850

**Tel: (015) 307 4098**  
**Fax: (086) 111 3989**  
**E-mail: admin@daneprojects.co.za**

**ISSUED BY:**

**THE MUNICIPAL MANAGER**  
**MAKHADO MUNICIPALITY**  
**PRIVATE BAG x2596**  
**MAKHADO**  
**0920**



**CONTACT PERSON: MS P MUDAU / MR M RAMABULANA**

**TEL: 015 519 3044/3024**

# MAKHADO MUNICIPALITY



## MAKATU TO TSHIKOTA ACCESS ROAD

70 of 2022

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## RESPONSIVENESS AND EVALUATION CRITERIA

MAKHADO MUNICIPALITY WILL NOT CONSIDER ANY BID UNLESS IT MEETS THE FOLLOWING RESPONSIVENESS CRITERIA:

- Tender will be evaluated on PPPFA 80/20 points system;
- Price(s) quoted must be valid for at least ninety (90) days from the closing date of the tender;
- Compulsory Briefing Session Attended
- CSD registration report or CSD registration Summary report
- Proof of CIDB registration (Minimum of 7CE or Higher)
- Initial each page
- Company registration certificate.
- Certified ID Copies of the Shareholders/Directors (certification should be original and not older than 3 months)
- Annexure Forms (A, B, C, D,E and G) fully completed and signed
- Copy of MM receipt of the payment of the tender document (proof of purchase)
- Proof of Municipal rates and taxes or services charges not in arrears for more than 90 days or confirmation from the municipality if municipal rates and taxes are not levies (as per CK form address); statement or tax invoice not older than 3 months; if leasing, a signed lease agreement by the lessor and the lessee and statement of municipal rates in the name of the lessor must be attached. (Both for the company and each of the directors)
- In case of a Joint Venture, Association or Consortium a formal contract agreement must be signed by both parties and be attached
- Forms must be **completed and signed** in Black Ink
- Letter of good standing (Compensation for Occupational Injuries and Disease Act(COIDA)) from Department of Labour OR any company accredited by Department of Labour
- Valid B-BBEE Certificate issued by a SANAS verification agency or original Sworn Affidavit from commissioner of oaths
- Any Alterations Initialed
- Company Profile.

**CHECKLIST OF MINIMUM REQUIREMENTS:**

No.	Minimum Requirements	Tick	Comment if not Attached
<b>COMPULSORY</b>			
1.	Compulsory Briefing Session Attended		
2.	Price(s) quoted is valid for at least ninety (90) days from the closing date of tender		
3.	CSD registration report or CSD registration Summary report		
4.	Proof of CIDB registration ( <b>Minimum 7CE or Higher</b> )		
5.	Initial each page		
6.	Company registration certificate		
7.	Certified ID Copies of the Shareholders/Directors (certification not older than 3 months)		
8.	Annexure Forms (A, B, C, D, E and G) fully completed and signed		
9.	Copy Makhado Municipality receipt of the payment of the tender		
10.	Proof of Municipal rates and taxes or services charges not in arrears for more than 90 days or confirmation from the municipality if municipal rates and taxes are not levies ( <b>as per CK form address</b> ); statement or tax invoice not older than 3 months; if leasing, a signed lease agreement by the lessor and the lessee and statement of municipal rates in the name of the lessor must be attached. (Both for the company and each of the directors)		
11.	Forms must be <b>Completed and Signed</b> in Black Ink		
12.	Letter of good standing (Compensation for Occupational Injuries and Disease Act (COIDA) from Department of Labour OR any company accredited by Department of Labour		
13.	Any Alterations Initialed		
<b>IF APPLICABLE</b>			
15.	In case of a Joint Venture, Association or Consortium a formal contract agreement must be signed by both parties and be attached		
<b>ZERO SCORE IF NOT SUBMITTED</b>			
16.	Curriculum Vitae of key personnel with <b>original</b> certified copies of qualifications, years of relevant experience on similar projects and projects names.		
17.	Schedule of company experience (appointment letters and completion certificates)		
18.	Schedule of plant		
19.	Company profile		
20.	Valid B-BBEE Certificate issued by a SANAS VERIFICATION AGENCY or original Sworn Affidavit from commissioner of oath		
21.	Audited annual financial statements not older than 3 months		

**Note: This is just a guide to assist you and is not necessarily all the information required. The Makhado Municipality indemnifies itself and retain the rights to evaluate the full documentation**

\_\_\_\_\_  
Service provider / representative

\_\_\_\_\_  
Signature



## PART T1: TENDERING PROCEDURES

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T1.2:	TENDER DATA .....	T.6	Pink
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# MAKHADO MUNICIPALITY



## TENDER NOTICE

All suitable service providers are hereby invited to bid for the below mentioned projects. Bidders are requested to bid as per specification attached to the bid documents that will be obtainable from 13 October 2022 at non-refundable amount of R600.00 per document at the Procurement Office No. B043 Ground Floor, 83 Krogh Street, Civic Center, Makhado or can be downloaded from e-tender portal for free <https://etenders.treasury.gov.za/content/advertised-tender> or [www.makhado.gov.za](http://www.makhado.gov.za).

BID NO:	DESCRIPTION	COMPULSORY BRIEFING SESSION	SPECIAL REQUIREMENT	TECHNICAL ENQUIRIES	REFERENCE AND NOTICE NO.	CLOSING DATE AND TIME
67 of 2022	Design, Printing, Supply and Delivery of Diaries, Posters and Calendars			<b>Director Corporate Services:</b> Mr SG Maguga or Mr NP Muthambi at 015 519 3000	Ref : 8/3/2/1911 Notice no: 126/2022	24 October 2022 at 12H00pm
68 of 2022	Rehabilitation of Vondeling landfill site	14 October 2022 at 11:00am at old vondeling landfill site (portion 7 of the farm Bergvlei 288LS next to Kutama Sinthumule prison)	• CIDB grading 06CE or higher • Attach three years audited financial statement (only for those who are required by-law)	<b>Director Technical Services:</b> Ms DG Siboiboi or Ms L Thulare at 015 519 3000	Ref : 8/3/2/1912 Notice no: 127/2022	08 November 2022 at 12H00pm
69 of 2022	Construction of Landfill site Makhado and Recycling centre (Additional mega cell and stormwater infrastructure)	14 October 2022 at 14:30am at Makhado new landfill site. Tshikota location (Lat:23° 3' 33.40"S) (Long: 29° 50' 33.43"E)	• CIDB grading 05CE or higher	<b>Director Technical Services:</b> Ms DG Siboiboi or Ms L Thulare at 015 519 3000	Ref : 8/3/2/1913 Notice no: 128/2022	08 November 2022 at 12H00pm
70 of 2022	Makatu to Tshikota access Road	17 October 2022 at 10:00am At intersection of road 523 (P278-1) and entrance to Mphephu high school (Lat:22° 53' 5.91" S) (Long: 30° 09' 14.6" E)	• CIDB grading 07CE or higher • Attach three years audited financial statement (only for those who are required by-law)	<b>Director Technical Services:</b> Ms DG Siboiboi or Ms L Thulare at 015 519 3000	Ref : 8/3/2/1914 Notice no: 129/2022	08 November 2022 at 12H00pm
71 of 2022	Rehabilitation of Breda Street	17 October 2022 at 14:30am Cnr Breda Street and Anderson Street (Lat: 23° 2' 4.48" S) (Long: 29° 54' 30.31" E)	• CIDB grading 06CE or higher • Attach three years audited financial statement (only for those who are required by-law)	<b>Director Technical Services:</b> Ms DG Siboiboi or Ms L Thulare at 015 519 3000	Ref : 8/3/2/1915 Notice no: 130/2022	08 November 2022 at 12H00pm

Completed bid documents signed by a duly authorized person, sealed in an envelope clearly marked "As mentioned above" must reach the undersigned by depositing it into the tender box at the foyer of the main entrance to the Civic Centre by not later than "As mentioned above" when all tenders received will be opened in public in the Council Chamber, Ground Floor, Civic Centre, No.83 Krogh Street, Makhado.

The Municipality is not bound to accept the lowest or any bid and reserves the right to accept any part of a bid. Bids must remain valid for a period of ninety (90) days after closing date of submission thereof. Submitted tenders will be evaluated on 80/20 preferential points with functionality.

**Bids which are late, incomplete, unsigned or submitted in pencil or by telegraph or facsimile or electronically by e-mail, or not having the following documents attached for evaluation or not complying with the tender specifications, will not be evaluated and will be disqualified:**

- Valid Tax compliance status pin issued by SARS
- A copy of company registration documents CK
- Certified copy/copies of company owner(s) ID book(s), not older than three (03) months certification.
- Attach proof of payment for municipal rates not owing for more than (03) months or formal lease agreement for rental premises or letter from the traditional authority in cases of non-ratable areas. (Attach for both entity and directors of the company)
- Copy of central supplier database report.

**NB:** • Service provider must submit their certified BBEE verification certificate from verification agency accredited by South African National Accreditation system (SANAS) or sworn affidavit.

- All Service Provider doing business with Makhado municipality are required to register on the CSD (Central Supplier Database).
- A copy of a certified copy will not be accepted.

**ONLY TENDER NO: 70 OF 2022 MAKATU TO TSHIKOTA ACCESS ROAD:**

**PRE-QUALIFICATION CRITERIA FOR PREFERENTIAL PROCUREMENT WILL BE CONSIDERED. NOTE: ONLY A TENDERER**

- Subcontracting a minimum of 30% to an EME or QSE which is at least 51% owned by black people including youth, women, people with disabilities, people living in rural areas or townships, and military veterans.
- A tender that fails to meet pre-qualifying criteria stipulated in this advert and tender document is unacceptable tender.

All procurement enquiries should be directed to Ms. P Mudau or Mr. M Ramabulana at tel no. (015) 519 3044/3024

Civic Centre 83 Krogh Street  
MAKHADO

MR KM NEMANAME  
MUNICIPAL MANAGER

## 1. EVALUATION OF BIDS

- a) All bids received shall be evaluated in terms of the Supply Chain Management Regulations, Makhado Municipality Supply Chain Management Policy, the preferential procurement regulation 2017, and other applicable legislations.
- b) The Council reserves the right to accept all, some, or none of the bids submitted – either wholly or in part – and it is not obliged to accept the lowest bid.
- c) Only locally manufactured products/items with specified minimum thresholds will be considered for local content **(Not applicable)**

**By submitting this bid, bidder authorises the Council or its delegate(s) to carry out any investigation deemed necessary to verify the correctness of the statements and documents submitted and that such documents reasonably reflect the ability of the Bidder to provide the goods and services required by the Council.**

### PLEASE NOTE

#### 1. The Municipal Manager may cancel a contract awarded to a person if:

- a) The person committed a corrupt or fraudulent act during the procurement process or in the execution of the contract, or
- b) An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited that person.

#### 2. The Municipal Manager may reject the bid or quote of any person if that person or any of its directors have:

- a) Failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- b) Failed, during the last five years, to perform satisfactorily on a previous contract with the Makhado Municipality or any other organ of State after written notice was given to that bidder that performance was unsatisfactory;
- c) Abused the supply chain management system of the Municipality or have committed any improper conduct in relation to this system;
- d) Been convicted of fraud or corruption during the past five years;
- e) Willfully neglected, reneged on or failed to comply with any government, municipal or other public-sector contract during the past five years; or
- f) 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) or has been listed on National Treasury's database as a person prohibited from doing business with public sector

**ANNEXURE A**

**SUPPLY CHAIN MANAGEMENT**

**EVALUATION PROCESS AND CRITERIA**

The following evaluation process and criteria will be used to evaluate all bids submitted:

**1. Compliance with Tender conditions**

**i. The Makhado Municipality will consider no bid unless it meets the following responsiveness criteria:**

- The bid must be properly received in a sealed envelope clearly indicating the description of the service and the bid number for which the bid is submitted.
- The bid must be deposited in the relevant bid box as indicated on the notice of the bid on or before the closing date and time of the bid.
- The electronic verification tax clearance must be accompanied by the verification code
- Bid forms must be completed in full and each page of the bid signed.
- A copy of the company registration certificate must be submitted with the bid on or before the closing time and date of the bid.
- Submission of a Joint Venture Agreement, where applicable, which has been properly signed by all parties.
- Compliance with the requirements of the bid and technical specifications.
- No bidder who is blacklisted by National Treasury or any National Authority due to non-performance will be considered.
- Proof of payment of Municipal account statement on rates and taxes from the respective municipality or proof of residence stamped by tribal authority for those residing in areas where municipal payments of rates and taxes are not implemented, such proof:
  - a) Must not be older than three (3) months from closing date of the tender,
  - b) It must have been addressed to the company itself or any of the shareholders or members as on the document for company registration, and
  - c) In case where the company is renting an office space, the lease agreement between the company and the respective landlord must accompany the rental invoice.
- The bidders are advised to attach their certified valid BBEE certificates, and in Case were the business is classified as Exempted Micro Enterprise (EME), an official letter from the Registered Auditor stipulating that the business has a turnover of less than R5m must be submitted. **It should be noted that none attachment of these documents (BBEE certificate or letter from Registered Auditor) will not disqualify the bidder for further evaluation but will instead disadvantage them from being scored on BBEE points.**
- In case where 2 (two) or more companies decide to form a joint venture (JV), all the companies in the JV have to attach each and every document as requested above in addition to the Joint Venture Agreement.

**ii. Meeting technical specifications and comply with bid conditions;**

**iii. Financial ability to execute the contract; and**

**iv. The number of points scored for achieving Government's Broad-Based Black Economic Empowerment objectives, points scored for price and / or points scored for functionality if applicable.**

**v. Mandatory audited financial statements not older than 3 months**

**T1.2: TENDER DATA**

The conditions of tender are those contained in the latest edition of SANS 10845-3, *Construction Procurement – Part 3: Standard Conditions of Tender*.

SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3.

Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause Number	Data												
2.1	Wherever reference is made in the documentation to Bill of Quantities it shall also mean Pricing Schedule.												
2.7	Wherever reference is made in the documentation to contractor it shall also mean service provider												
3.1	<p>The Employer is <b>MAKHADO MUNICIPALITY</b></p> <p>The Employer's domicilium citandi et executandi (permanent physical business address) is:</p> <p>Makhado Municipality, Civic Centre, 83 Krogh Street, Makhado.</p> <p>The Employer's address for communication relating to this project is:</p> <table><tr><td><b>POSTAL</b></td><td><b>OR</b></td><td><b>DELIVERY</b></td></tr><tr><td>Private Bag x2596</td><td></td><td></td></tr><tr><td>Makhado</td><td></td><td>Civic Centre, 83 Krogh Street</td></tr><tr><td>0920</td><td></td><td></td></tr></table>	<b>POSTAL</b>	<b>OR</b>	<b>DELIVERY</b>	Private Bag x2596			Makhado		Civic Centre, 83 Krogh Street	0920		
<b>POSTAL</b>	<b>OR</b>	<b>DELIVERY</b>											
Private Bag x2596													
Makhado		Civic Centre, 83 Krogh Street											
0920													
3.2	<p>The tender documents issued by the employer comprise:</p> <p>T1.1 Tender notice and invitation to tender</p> <p>T1.2 Tender data</p> <p>T2.1 List of returnable documents</p> <p>T2.2 Returnable schedules</p> <p>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 Disclosure Statement</p> <p>C1.5 Adjudication Member Agreement</p> <p>C1.6 Agreement in terms of the Occupational Health and Safety Act</p> <p>C2: Pricing data</p> <p>C2.1 Pricing instructions</p> <p>C2.2 Activity schedules or bill of quantities</p> <p>C3: Scope of work</p> <p>C3 Scope of work</p> <p>C4: Site information</p> <p>C4 Site information</p>												
3.4	The language for communications is English.												

3.4	<p><b>The Employer's agent is:</b></p> <p>Name : <b>DANE PROJECTS (PTY) LTD</b>  Address : 32 King Edward Drive  Tzaneen  0850</p> <p>Telephone : (015) 307 4098 Fax: (086) 111 3989  E-Mail Address : <a href="mailto:admin@daneprojects.co.za">admin@daneprojects.co.za</a></p>
3.5	<p>The tender process may be cancelled if:</p> <p>(a) Due to changed circumstances, there is no longer a need for the goods or services specified in the invitation;  (b) Funds are no longer available to cover the total envisaged expenditure;  (c) No acceptable tender is received; or  (d) There is a material irregularity in the tender process</p>
3.6	The competitive selection procedure shall be applied in awarding the tender.
3.7	<p><b>Jurisdiction</b></p> <p>Unless stated otherwise in the Tender Data, each tenderer and the Employer undertake to <b>accept</b> the jurisdiction of the courts of law of the Republic of South Africa.</p>
4.1	<p>Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:</p> <p>(a) The Contractor submitting the tender is under restrictions or has principals who are under restriction to participate in the Employer's procurement due to corrupt or fraudulent practices;</p> <p>(b) The tenderer does not have the legal capacity to enter into the contract;</p> <p>(c) The Contractor submitting the tender is insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of the foregoing;</p> <p>(d) The tenderer does not comply with the legal requirements stated in the Employer's procurement policy;</p> <p>(e) The tenderer cannot demonstrate that he <b>possesses</b> the <b>necessary</b> professional and technical qualifications and <b>competent</b>, financial resources, equipment and other physical facilities, managerial capability, personnel, experience and reputation to perform the contract;</p> <p>(f) The Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the <b>contract</b>.</p> <p>Only those tenderers who are registered with the Construction Industry Development Board (CIDB) in a contractor-grading equal to or higher than a contractor grading designation <b>7CE</b> or higher or a combined grading (in the case of a joint venture) equal or higher than <b>7CE</b> as defined in the Regulations (09 August 2004 and 22 July 2005), in terms of the CIDB Act No 38 of 2000, are eligible to submit tenders for this contract.</p> <p><b>(Bidders qualifying for CIDB grade 6CE PE will be considered)</b></p>



	1	Only those Tenderers who have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for Supervisory and management staff are eligible to submit tenders.
	2	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.
4.6		Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender, Clause 5.8.
4.7		<p>The arrangements for the compulsory site inspection visit and clarification meeting are as follows:</p> <p><b>Location:</b> At intersection of road 523 (P278-1) and entrance to Mphephu High School (Coordinates 23°53'5.91S and 30°09'14.6" E)</p> <p><b>Date:</b> 17/10/2022                      <b>Starting Time:</b> 10H00</p> <p>Tenderers shall sign the attendance list in the name of the tendering entity. Addenda will be issued to, and tenders will be received only from, those tendering entities appearing on the attendance list.</p> <p>The onus rests with the tenderer to ensure that the representative attending the clarification meeting is appropriately qualified to understand all directives and clarifications given at that meeting.</p>
4.10		Tenderers are required to state the rates and currencies in Rand.
4.12		<p>Alternative offers are generally not acceptable due to possible manipulation of the tender process and resulting complexity of the evaluation.</p> <p><b><i>Therefore, the submission of alternative tenders is strongly discouraged.</i></b></p> <p>The submission of alternative work will be considered as a non-responsive offer. However, a tenderer wishing to submit an alternative offer shall first apply to the Employer with full details of the principles of the alternative for confirmation that the Employer's standards and requirements are not compromised or reduced. Such confirmation must have been provided by the Employer in writing at least 5 (five) working days before the date and time of tender closing, or as extended by an addendum sent to all tenderers. The application shall not be submitted later than 7 (seven) working days before the date and time of tender closing given in Tender Data Clause 4.15.</p>
4.13		Parts of each tender offer communicated on paper shall be submitted as an original, plus zero (0) copies.
4.13.4		<p>The tenderer is required to submit with his tender the following Mandatory documents:</p> <ul style="list-style-type: none"> <li>• Electronic Valid Tax Clearance Certificate supplied with verification code;</li> <li>• Compensation Fund registration certificate</li> <li>• Certificate of Contractor Registration issued by the Construction Industry Development Board or a copy of the application Form for registration in terms of the Construction Industry Development Board Act (Form F006). A minimum grading of <b>7CE</b> is required</li> </ul> <p>In the event of a Joint Venture submitting a tender, every member of the joint venture must submit proof of registration with the CIDB within 10 days from the closing date for tenders; and the lead partner must have a minimum contract grading designation</p> <p><b><u>Important Note:</u></b></p> <p>Failure to provide the required particulars as per the above-listed certificates implies a non-responsive tender and warrants rejection of the tender on account of non-compliance with</p>

	the requirements of the Tender Data
4.13.5	Wherever reference is made in the tender documentation for non-financial proposal it shall also mean technical proposal.
4.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender package are:  <b>Location of tender box: Makhado Municipality</b> <b>Physical address: Civic Centre, 83 Krogh Street, Makhado.</b> <b>Postal Address: Private Bag 2596, Makhado, 0920</b>
4.13.5	A two-envelope procedure is <b>NOT</b> required
4.13.6	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers shall <b>NOT</b> be accepted
4.15	The closing time for submission of tender offers is <b>12H00</b> hours on <b>8/11/2022</b>
4.16.1	The tender validity period is <b>90</b> days
4.16.2	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: (a) withdraws his tender; (b) gives notice of his inability to execute the contract in terms of his tender; or  such tenderer shall be barred from tendering on any of the Employer's tenders for a period to be determined by the Employer, but not less than 6 (six) months from a date determined by the Employer. This sanction also applies to tenders under evaluation and not yet awarded. The Employer may fully or partly exempt a tenderer from the provisions of this conditions if he is of the opinion that the circumstances justify the exemption.
4.18	Any additional information requested under the clause must be provided within 5 (five) working days of date of request.
4.19	Access shall be provided for inspections and testing by personnel acting on behalf of the Employer
5.1	The Employer shall respond to clarifications received up to 7 (seven) working days before tender closing time.
5.2	The Employer shall issue addenda until 5 (five) working days before tender closing time.
5.4	The time and location for opening of the tender offers are:  <b>Date : 12H00 on 8/11/2022</b>  <b>Location : Makhado Municipality, Civic Centre, 83 Krogh Street</b>
5.5	The minimum percentage of evaluation points for quality is <b>70%</b> .
5.7	Prior to disqualification, the Employer shall inform the tenderer and give the tenderer an opportunity to make representations within 14 days as to why the tender submitted should not be disqualified and as to why the tenderer should not be restricted by the National Treasury from conducting any business with any organ of state for a period not exceeding 10 years.  In the event of disqualification, the Employer may, at its sole discretion, claim damages from the tenderer and impose a specified period during which tender offers will not be accepted from the offending tenderer and, the Employer shall inform the National Treasury in writing.
5.8	<b>Arithmetical errors, omissions, discrepancies and imbalanced unit rates</b>  Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount appearing in the summary to the Pricing Schedule shall govern.  Check responsive tender offers for: a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the Pricing Schedule or Bills of Quantities; or



	<p>c) arithmetic errors in:</p> <ol style="list-style-type: none"> <li>line item totals resulting from the product of a unit rate and a quantity in Bills of Quantities or Schedules of Prices; or</li> <li>the summation of the prices;</li> </ol> <p>d) imbalanced unit rates.</p> <p>Notify shortlisted tenderers of all errors, omissions or imbalanced rates that are identified in their tender offers.</p> <p>Where the tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:</p> <ol style="list-style-type: none"> <li>if Bills of Quantities or Pricing Schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern, and the line item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted, and the unit rate shall be corrected.</li> <li>Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.</li> <li>Where the unit rates are imbalanced, adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under (a) and (b) above.</li> </ol> <p>Where there is an omission of a line item, no correction is possible, and the offer may be declared non-responsive.</p> <p><b>Declare</b> as non-responsive and reject any offer from a tenderer who elects not to accept the corrections proposed and subject the tenderer to the sanction under 4.16.2.</p> <p>The tenderer is required to submit balanced unit rates for Rate Only items in the Pricing Schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.</p>
5.11	The procedure for the evaluation of responsive tenders is <b>Method 4</b> .
5.11.5	<p><b>Method 4: Financial offer, quality and preferences</b></p> <p>In this case of a financial offer, quality and preferences;</p> <ol style="list-style-type: none"> <li>score each tender in respect of the financial offer made, the preference claimed, if any, and the quality offered in accordance with the provisions of 5.11.7 to 5.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any,</li> <li>calculate the total number of tender evaluation points (<math>T_{EV}</math>) in accordance with the following formula;</li> </ol> $T_{EV} = f_1(N_{FO} + N_P) + f_2 N_Q$ <p>Where; <math>f_1</math> and <math>f_2</math> are fractions: <math>f_1</math> equals to 1 minus <math>f_2</math>; and <math>f_2</math> equals to <b>0.75</b></p> <p><math>N_{FO}</math> is the number of tender evaluation points awarded for the financial offer made in accordance with 5.11.7 in SANS 10845-3, 2015 where the score for financial offer is calculated using the following formula</p> $N_{FO} = W_1 A$ <p>Where the maximum point for price <math>W_1 = 80</math>, (ref. preferential regulations 2017).</p> $A = \{1 - (P - P_m) / P_m\}$ [Where $P$ is the comparative price for the Tender under consideration and $P_m$ is the comparative price of the lowest qualified tender]

	<p><b><math>N_p</math></b> is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferential Procurement Regulations 2017 (ref: Preferencing Schedule), which is up to a maximum of <b>20</b> points that will be awarded to tenderers who complete the Preferencing Schedule and who will be found to be eligible for the preference claimed.</p> <p><b><math>N_Q</math></b> is the number of tender evaluation points awarded for quality offered in accordance with clause 5.11.9, in SANS 10845-3,2015 where <b><math>W_2 = 100</math></b></p> <p>Up to 100 minus <b><math>W_1</math></b> tender evaluation will be awarded to tenderers who complete the preferencing schedule and who are found eligible for the preference claimed in accordance with 5.11.9</p> <ul style="list-style-type: none"> <li>c) rank tender offers from the highest number of tender evaluation points to the lowest, and</li> <li>d) recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.</li> </ul> <p>Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so, in which case the process set out in this subclause shall be repeated.</p> <p>If two or more tenderers score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for preference.</p> <p>If functionality/ quality is part of the evaluation process and two or more tenderers score equal total points and equal preference points, the contract must be awarded to the tenderer that scored the highest points for functionality/ quality.</p> <p>If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.</p>
5.11.6	Scores of financial offers, preferences and quality, as relevant, to be given to two (2) decimal places

5.11.7	<p><b>Scoring Financial Offers</b></p> <p>Score the financial offers using the following formula:  <math>N_{FO} = W_1 \times A</math>  where</p> <p><math>N_{FO}</math> is the number of tender evaluation points awarded for the financial offer;</p> <p><math>W_1</math> is the maximum possible number of tender evaluation points awarded for the financial offer as stated below</p> <p><math>A</math> is the number calculated using the relevant formula described below</p> <p>The value of <math>W_1</math> is:</p> <p>80 where the financial value, inclusive of VAT, of the lowest responsive tender offer has a value that equals or is less than R50 000 000.00.</p> <p>The following formula shall be used to calculate the points for price (<math>A</math>):</p> $A = \left( 1 - \frac{P - P_m}{P_m} \right) W_1$ <p>Where:</p> <p><math>P</math> is the comparative offer of the tender offer under consideration and</p> <p><math>P_m</math> is the comparative offer of the most favourable comparative offer</p> <p><math>W_1</math> is the maximum number of points for price (in this case 80)</p> <p>In the event that the calculated value is negative, the allocated score shall be 0 (zero).</p>
5.11.8	<p><b>Scoring Preferences</b></p> <p><math>N_P</math> shall be calculated as described below;</p> <p>Up to 100 minus <math>W_1</math> tender evaluation points will be awarded to tenderers who submit responsive tenders and who are found to be eligible for the preference claimed. Points are based on a tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (B-BBEE, Act 53 of 2003) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000).</p> <p>Points awarded will be according to a tenderer's B-BBEE status level of contributor and summarized in the table below:</p>

	<table><tr><th>B-BBEE Status Level of Contributor</th><th>Number of points (80/20 system)</th></tr><tr><td>1</td><td>20</td></tr><tr><td>2</td><td>18</td></tr><tr><td>3</td><td>16</td></tr><tr><td>4</td><td>12</td></tr><tr><td>5</td><td>8</td></tr><tr><td>6</td><td>6</td></tr><tr><td>7</td><td>4</td></tr><tr><td>8</td><td>2</td></tr><tr><td>Non-compliant contributor</td><td>0</td></tr></table>	B-BBEE Status Level of Contributor	Number of points (80/20 system)	1	20	2	18	3	16	4	12	5	8	6	6	7	4	8	2	Non-compliant contributor	0
B-BBEE Status Level of Contributor	Number of points (80/20 system)																				
1	20																				
2	18																				
3	16																				
4	12																				
5	8																				
6	6																				
7	4																				
8	2																				
Non-compliant contributor	0																				
	<p>Eligibility for preference points is subject to the following conditions:</p> <p>a) A tenderers' scorecard shall be a B-BBEE Verification Certificate issued in accordance with the revised Notice of Clarification published in the Notice 444 of 2015 published in Government Gazette 38799 on 15 May 2015 by the Department of Trade and Industry; and</p> <p>b) The scorecard shall be submitted as a certificate attached to Returnable Schedule <b>Annexure P</b>; and</p> <p>c) The certificate shall:</p> <p>a) Be an original or an original certified copy of the original; and</p> <p>b) Have been issued by a verification agency accredited by the South African National Accreditation System (SANAS); or</p> <p>c) Have been issued prior to 30 September 2016 by a registered auditor who was approved by the Independent Regulatory Board of Auditors (IRBA); or</p> <p>d) Be in the form of a sworn affidavit in the case of an Exempted Micro Enterprise (EME) or Qualifying Small Enterprise (QSE); and</p> <p>e) Be valid at the tender closing date; and</p> <p>f) Have a date of issue less than 12 (twelve) months prior to the tender closing date (see Tender Data 4.15); and</p> <p>d) Compliance with any other information requested to be attached to Returnable Schedule <b>Annexure P</b> and</p> <p>e) If a tenderer claims a preference score without submitting an acceptable verification certificate (s) and/or all of the information in compliance with Returnable Schedule <b>Annexure P</b>, a period of 1 working day will be granted to submit this information; and</p> <p>f) Failure to submit a valid verification certificate(s) and/or all the information in compliance with Returnable Schedule <b>Annexure P</b>, will result in the award of 0 (zero) points for preference; and</p> <p>g) In the event of a Joint Venture (JV), a consolidated B-BBEE Verification Certificate in the name of the JV shall be submitted, as well as a valid B-BBEE verification certificate for each member of the JV; and,</p> <p>h) If the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, 0(zero) points for preference will be awarded, unless the intended subcontractor is an EME that has the capability to execute the subcontract.</p>																				
5.11.9	<p><b>Scoring Quality</b></p> <p>Score each of the criteria and sub criteria for quality in accordance with the provisions of the tender data. Calculate the total number of tender evaluation points for quality (<math>N_Q</math>) using the following formula:</p> $N_Q = W_2 \times S_o / M_s$ <p>where</p> <p><math>W_2</math> is the maximum possible number of tender evaluation points awarded for the quality</p> <p><math>S_o</math> is the score for quality allocated to the submission under consideration;</p>																				



**M<sub>s</sub>** is the maximum possible score for quality in respect of a submission (using the table given below)

#### FUNCTIONALITY SCORE CARD:

TARGETED GOALS Name reference with contact details (Previous 3 yrs, Roads Projects)		Max Points to be Scored	Points Claimed by Tenderer	Allocated Points
1	Project 1	8		
2	Project 2	8		
3	Project 3	8		
4	Project 4	8		
5	Project 5	8		
Sub-Total: Reputation and References		40		

**NOTE:** The tender should attach Appointment Letter and Completion Certificate as a proof for having completed such project. Points for each project will be allocated as follows:

8CE: 8 points

7CE: 6 points

6CE: 5 points

5CE: 4 points

5.11.9.1

#### FINANCIAL REFERENCES

TARGETED GOALS		Tendered Goal	Points Claimed by Tenderer	Allocated Points
1	Tenderer submitted banking details proof attached	2		
2	Bank rating of "C" or better	5		
3	Registered financial Institution's full details as guarantor in the amount of 10% as specified for surety purpose shall be submitted	3		
Sub-Total: Financial References		10		

#### EXPERIENCE AND QUALIFICATION OF KEY STAFF

##### Experience

TARGETED GOALS		Points Allocation	Points Claimed by Tender er	Allocated Points
1	Contract Manager: 10 years in Road	>10 yrs=5		

	Projects	6-9 yrs=3 3-5 yrs=2 1-2yrs=1		
2	Site Agent: 8 years in Road Projects	>8 yrs=5 5-7 yrs=3 3-4 yrs=2 1-2yrs=1		
3	Foreman 5 years in Road Projects	>5 yrs=3 4 yrs=1.5 3 yrs=1 1-2yrs=0.5		
4	Health and Safety Officer 5 years of experience as OHS in Civil Engineering Construction	>5 yrs=2 4 yrs=1 3 yrs=0.5 1-2yrs=0.25		
<b>Sub-Total: Experience</b>		<b>15</b>		

**NOTE: Project organogram should be attached. Curriculum vitae with detailed experience and contact details should be attached to the tender document for verification by the consultants.**

**Qualifications**

	TARGETED GOALS	Tendered Goal	Points Claimed by Tenderer	Allocated Points
1	Contract Manager: Civil Engineering or construction management or project management	BSc = 5 B-Tech /PrCPM = 5 ND = 3 N6 = 2 Any Cert= 1		
2	Site Agent: Civil Engineering or Construction management (Must have at least NQF 5)	BSc/B-Tech = 5 ND = 4 NQF 5/7 = 3 N6 = 2 Any Cert= 1		
3	Foreman	ND = 3 NQF 7 =2 N6 = 2 N3= 1.5 NQF5= 1.5 NQF 4= 1 NQF 3= 0.5		
4	Health and Safety Office 5 years of experience as OHS in Road projects	ND = 2 Cert = 0.5		
<b>Sub-Total: Qualifications</b>		<b>15</b>		

**CV's and Certified Qualifications should be attached.**

**PLANT AND EQUIPMENT**

TARGETED GOALS	Tendered Goal	Points Claimed by Tenderer	Allocated Points
1. Grader (2 no)	4		
2. TLB (1 no)	2		
3. Excavators (1 no)	3		
4. Water Cart (10 000 litre)	2		
5. Low-Bed (1 no)	2		
6. 10 m³ Tipper Trucks (4 no)	5		
7. 12 Ton Roller (1 no)	2		
<b>Sub-Total: Plant and Equipment</b>	<b>20</b>		

**Note: Tenderers should attach certified proof of ownership certificate for the plant mentioned above if they own such plant. In case of hired plant, tenderers will be required to attach a letter of undertaking by the hiring firm indicating that they will provide the tenderer with such plant should the tenderer becomes a successful bidder. The hiring company should also provide proof of ownership for such plants.**

**SUMMARY**

DESCRIPTION	Maximum Points to be Allocated	Points Claimed by Tenderer	Allocated Points
REPUTATION AND REFERENCE OF THE FIRM: TABLE A1	40		
FINANCIAL REFERENCES: TABLE A2	10		
EXPERIENCE OF KEY STAFF: TABLE 3.1	15		
QUALIFICATION OF KEY STAFF: TABLE A3.2	15		
PLANT AND EQUIPMENT: TABLE A4	20		
<b>TOTAL</b>	<b>100</b>		

The minimum number of evaluation points for functionality is **70**.

Tender offers will only be accepted if:

5.13

- the tenderer is registered on the Central Supplier Database (CSD) for the South African government ( see <https://secure.csd.gov.za/> ) unless it is a foreign supplier with no local registered entity
- the tenderer is in good standing with SARS according to the Central Supplier Database;
- the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document
- the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;



	<p>f) the tenderer has not:</p> <ul style="list-style-type: none"> <li>i) abused the Employer's Supply Chain Management System; or</li> <li>ii) failed to perform on any previous contract and has been given a written notice to this effect;</li> </ul> <p>g) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process;</p> <p>h) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;</p> <p>i) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</p>
5.13.1	<p><b>Acceptance of a tender offer (Additional Conditions)</b></p> <p>The Employer shall accept a tender offer should it be considered not to present any unacceptable commercial risk, only if the tenderer</p> <ul style="list-style-type: none"> <li>a) is not under restrictions, or has principals who are under restrictions, preventing participation in the employer's procurement,</li> <li>b) can, as necessary and in relation to the proposed contract, demonstrate the possession of the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and personnel, to perform the contract,</li> <li>c) has the legal capacity to enter into the contract,</li> <li>d) is not insolvent, in receivership, bankrupt or being liquidated, does not have affairs administered by a court or a judicial officer, does not have suspended business activities, or is subject to legal proceedings with respect to any of the foregoing,</li> <li>e) complies with the legal requirements, if any, stated in the tender data, and</li> <li>f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.</li> </ul>
5.17	<p>The number of paper copies of the signed contract to be provided by the employer is <b>ONE (1)</b></p>
5.18	<p><b>Preparing Tender Documents</b></p> <p>If necessary, the documents that shall form part of the contract and that were issued by the employer as part of the tender documents, shall be revised to take account of;</p> <ul style="list-style-type: none"> <li>a) addenda issued during the tender period,</li> <li>b) inclusion of some of the returnable documents, and</li> <li>c) other revisions agreed between the employer and the successful tenderer during the process of offer and acceptance.</li> </ul> <p>The schedule of deviations attached to the form of offer and acceptance, if any, shall be completed.</p>
5.19	<p>All communication shall be done in writing</p>



## 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:

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

#### F.1.4 Communication and employer's agent

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

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

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

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

### F.2 Bidder's obligations

**F.2.1 Eligibility**

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

**F.2.2 Cost of 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.

**F.2.10.2** Show VAT payable by the employer separately as an addition to the bidder's total of the prices.

**F.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to

adjustment except as provided for in the conditions of contract identified in the contract data.

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

#### **F.2.11 Alterations to documents**

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

#### **F.2.12 Alternative bid offers**

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

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

#### **F.2.13 Submitting a bid offer**

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

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

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

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

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

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

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

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

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

Accept that bid offers, which do not provide all the data or information requested completely and in the form



required, may be regarded by the employer as non-responsive.

#### **F.2.15 Closing time**

**F.2.15.1** Ensure that the employer receives the bid offer at the address specified in the bid data not later than 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.

#### **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.

**F.3.7 Grounds for rejection and disqualification**

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

practices.

### F.3.8 Test for responsiveness

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

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

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

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

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

### F.3.9 Arithmetical errors

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

- Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- If a bill of quantities (or schedule of rates) 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:

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:	1) Score bid evaluation points for financial offer.



Financial offer and preferences	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 the following formula:

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

$N_{FO}$  = the number of bid evaluation points awarded for the financial offer.

$W_1$  = the maximum possible number of bid evaluation points awarded for the financial offer as stated in the Bid Data.

$A$  = a number calculated 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.

### 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:

- a) Addenda issued during the bid period,
- b) Inclusion of some of the returnable documents,
- c) Other revisions agreed between the employer and the successful bidder, and
- d) 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.



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

## T2.1: LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

### 1 Returnable Schedules required only for tender evaluation purposes

- A. Record of Addenda to Tender Documents
- B. Proposed amendments and qualifications
- C. Preferencing Schedule: Broad Based Black Economic Empowerment Status
- D. Compulsory Declaration
- E. Municipal declaration and returnable documents
- F. Certificate of Attendance at a Tender Site Meeting
- G. Certificate of Authority of Joint Ventures/ Close corporations/ Partnership/ Company/ Sole proprietor (Certified Copies of the Identity Documents in the Case of sole proprietor)
- H. Registration Certificates of Entities – Joint Ventures/ Close corporations/ partnership/ Company/ Sole Proprietor
- I. Schedule of Tenderer's Experience
- J. Schedule of Key Personnel
- K. Format of Curriculum Vitae (CV)
- L. Schedule of Sub-Contractors
- M. Schedule of plant and equipment
- N. Copy of Workmen's Compensation Registration Certificate (or proof of payment of contributions

**MBD 1** Invitation to Bid

**MBD 2** CSD, Tax Clearance Requirements

**MBD 4** Declaration of interest

**MBD 5** Declaration of Interest Declaration for procurement above R10m (vat inclusive)

**MBD 6.1** Preference points claim form in terms of the preferential procurement regulations 2011

**MBD 6.2** Declaration certificate for local production and content

**MBD 8** Declaration of Bidder's Past Supply Chain Management Practices

**MBD 9** Certificate of Independent Bid Determination

Compliance with occupational health and safety act, 1993 and construction regulations, 2014

NB: Mandatory documents will also be used for the evaluation

### 2 Other documents required only for tender evaluation purposes

Certificate of Contractor Registration issued by the Construction Industry Development Board

Company profile

Curriculum vitae format of key personnel

Copy of company registration certificate (C.K. Certificate) with shareholding

BBB-EE (SANAS accredited or sworn affidavit)

Preference schedule

An original valid Tax Clearance Certificate issued by the South African Revenue Services.

Where the tendered amount inclusive of VAT exceeds R 10 million:

- audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing;
- certificate certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
- particulars of any contracts awarded to the tenderer 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;

- a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

### **3 Returnable Schedules that will be incorporated into the contract**

Preferencing Schedule (direct preferences)

### **4 Other documents that will be incorporated into the contract**

#### **4.1 The offer portion of the C1.1 Offer and Acceptance**

#### **4.2 C1.2 Contract Data (Part 2)**

#### **4.3 C2.2 Bills of quantities**

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## RETURNABLE DOCUMENTS

## T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

### 1. Returnable Schedules required only for tender evaluation purposes

- A. Record of Addenda to Tender Documents
- B. Proposed amendments and qualifications
- C. Preferencing Schedule: Broad Based Black Economic Empowerment Status
- D. Compulsory Declaration
- E. Municipal declaration and returnable documents
- F. Certificate of Attendance at a Tender Site Meeting
- G. Certificate of Authority of Joint Ventures/ Close corporations/ Partnership/ Company/ Sole proprietor (Certified Copies of the Identity Documents in the Case of sole proprietor)
- H. Registration Certificates of Entities – Joint Ventures/ Close corporations/ partnership/ Company/ Sole Proprietor
- I. Schedule of Tenderer's Experience
- J. Schedule of Key Personnel
- K. Format of Curriculum Vitae (CV)
- L. Schedule of Sub-Contractors
- M. Schedule of plant and equipment
- N. Copy of Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993)
- RDP. Employment of EME or QSE

### MBD Forms

### 2. Other documents required only for tender evaluation purposes

- O. Competence Achievement Schedule
- P. BBBEE Certificate / Sworn affidavit
- Q. Form of Intent to offer a Performance Guarantee
- R. An Original Tax Clearance Certificate issued by the South African Revenue Services

### 3. Other documents that will be incorporated into the contract

- S. Execution Programme
- T. Contractor's Health and Safety Declaration
- U. Contractor's Safety Plan
- V. Proforma Notification form in terms of the Occupational Health and Safety Act 1993, Construction Regulations, 2014.

Annexure A: Record of Addenda to tender documents

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

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

Attach additional pages if more space is required.

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

Tenderer: .....

---

**Annexure B: Proposed amendments and qualifications**

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

The Tenderer's **attention** is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed

Date

Name

Position

---

*Tenderer*

## Annexure C: Preferencing schedule: Broad Based Black Economic Empowerment Status

### Preamble

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that “Every organ of state and public entity must take into account and, as far as is reasonably possible, apply any **relevant code of good practice** issued in terms of this Act in **developing and implementing a preferential procurement policy**.”

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003 including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

### 1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide **sufficient evidence** of their B-BBEE Status in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

### 2 Sufficient evidence of qualification

#### 2.1 Exempted micro enterprises

Sufficient evidence of qualification as an Exempted Micro-Enterprise is a:

- a) a **registered** auditor's certificate or similar **certificate** issued by an accounting officer as contemplated in the Close Corporation Act of 1984 in respect of the entity's last financial year or a 12-month period which **overlaps** with its current financial year; or a certificate issued by a verification agency and which is valid as at the closing date for submissions; or.
- b) a sworn **affidavit** - B-BBEE Exempted Micro Enterprise (see [www.thedti.gov.za/gazettes/Affidavit\\_EME.pdf](http://www.thedti.gov.za/gazettes/Affidavit_EME.pdf))

#### 2.2 Enterprises other than micro exempted enterprises

Sufficient evidence of B-BBEE Status is:

- a) an original or **certified** copy of the certificate issued by a verification agency accredited by the South African National Accreditation System (SANAS) or registered auditors **approved** by Independent Regulatory Board for Auditors (IRBA) and which is valid as at the closing date for submissions; or.
- b) a sworn **affidavit** – B-BBEE Qualifying Small Enterprise (see [www.thedti.gov.za/gazettes/BBEE\\_QUALIFYING\\_SMALL\\_ENTERPRISE.pdf](http://www.thedti.gov.za/gazettes/BBEE_QUALIFYING_SMALL_ENTERPRISE.pdf))

### 3 Tender preferences claimed

The scoring shall be as follows:

B-BBEE status determined in accordance with the preferencing schedule for Broad-Based Black Economic Empowerment	% max points for preference
Form not completed or no-complaint contributor	0
Level 8 contributor	2
Level 7 contributor	4
Level 6 contributor	6
Level 5 contributor	8
Level 4 contributor	12
Level 3 contributor	14
Level 2 or contributor	18
Level 1 contributor	20



**4 Declaration**

The tenderer declares that

- a) the tendering entity is a level contributor as stated in the submitted evidence of qualification as at the closing date for submissions
- b) the tendering entity has been measured in terms of the following code (tick **applicable** box)
- ☐ Generic code of good practice
- ☐ Other – specify . . . . .
- c) the contents of the declarations made in terms of a) and b) above are within my **personal** knowledge and are to the best of my belief both true and correct

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

Signature: .....

Name: .....

Duly **authorised** to sign on behalf of: .....

Telephone: .....

Fax: ..... Date: .....

Name of **witness** ..... Signature of witness .....

**Note:** 1) Failure to complete the declaration will lead to the **rejection** of a claim for a preference

- 2) Supporting **documentation** of the **abovementioned** claim for a preference must be submitted with the tender submission to be eligible for a preference

## Annexure D: Compulsory Declaration

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

### Section 1: Enterprise Details

Name of enterprise:	
Contact person:	
Email:	
Telephone:	
Cell no	
Fax:	
Physical address	
Postal address	

### Section 2: Particulars of companies and close corporations

Company / Close Corporation registration number	
---	--

### Section 3: SARS Information

Tax reference number	
VAT registration number:	State Not Registered if not registered for VAT

### Section 4: CIDB registration number

CIDB Registration number (if applicable)	
--	--

### Section 5: National Treasury Central Supplier Database

Supplier number	
Unique registration reference number	

### Section 6: Particulars of principals

**principal:** means a natural person who is a partner in a partnership, a sole proprietor, a director of a company established in terms of the Companies Act of 2008 (Act No. 71 of 2008) or a member of a close corporation registered in terms of the Close Corporation Act, 1984, (Act No. 69 of 1984).

Full name of principal	Identity number	Personal tax reference number
Attach separate page if necessary		

**Section 7: Record in the service of the state**

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- |   |  |
|---|--|
| a <b>member</b> of any municipal council  | an employee of any <b>department</b> , national or provincial public entity or constitutional institution within the meaning of the Public Finance <b>Management Act</b> of 1999 (Act No. 1 of 1999) |
| a <b>member</b> of any provincial legislature                                       |  |
| a member of the <b>National Assembly</b> or the <b>National Council of Province</b> |  |
| a member of the board of directors of any municipal entity                          | a member of an accounting authority of any national or provincial public entity  |
| an official of any <b>municipality</b> or municipal entity                          | an employee of Parliament or a provincial legislature  |

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

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

\*insert separate page if necessary

**Section 8: Record of family member in the service of the state**

**family member:** a person's spouse, whether in a marriage or in a customary union according to indigenous law, domestic partner in a civil union, or child, parent, brother, sister, whether such a **relationship** results from birth, **marriage** or adoption

Indicate by marking the relevant boxes with a cross, if any family member of a principal as defined in section 5 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   | an employee of any provincial <b>department</b> , national or provincial public entity or constitutional institution within the meaning of the Public Finance <b>Management Act</b> , 1999 (Act 1 of 1999) |
| a <b>member</b> of any provincial legislature                                       |  |
| a member of the <b>National Assembly</b> or the <b>National Council of Province</b> |  |
| a <b>member</b> of the board of directors of any municipal entity                   | a member of an accounting authority of any national or provincial public entity  |
| an official of any <b>municipality</b> or municipal entity                          | an employee of Parliament or a provincial legislature  |

Name of family member	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

\*insert separate page if necessary

**Section 9: Record of termination of previous contracts with an organ of state**

Was any contract between the tendering entity including any of its joint venture partners terminated during the past 5 years for reasons other than the employer no longer requiring such works or the employer failing to make payment in terms of the contract.

Yes ☐ No (Tick appropriate box) ☐

If yes, provide particulars (insert separate page if necessary)

**Section 10: Declaration**

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the tendering entity confirms that the contents of this Declaration are within my personal knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and:

- i) neither the name of the tendering entity or any of its principals appears on:
  - a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004)
  - b) National Treasury's Database of Restricted Suppliers (see [www.treasury.gov.za](http://www.treasury.gov.za))
- ii) neither the tendering entity or any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa);
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers
- v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract etc.) or intention to not win a tender;
- vi) has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months;
- viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by the National Treasury, for SARS to do likewise.

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

Enterprise name \_\_\_\_\_

NOTE 1 The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an **employee** (person who is **employed** in posts on the **establishment of departments**) from performing or engaging **remunerative** work outside his or her **employment** in the relevant **department**, except with the written **permission** of the **executive** authority of the **department**. When in **operation**, Section 8(2) of the Public Administration **Management** Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national **departments**, national government components listed in Part A of Schedule 3 to the Public Service Act, **provincial departments** including the office of the premier listed in **Schedule 1** of the Public Service Act and **provincial departments** listed in schedule 2 of the Public Service Act, and provincial **government components** listed in Part B of schedule 3 of the Public Service Act) or persons **contracted** to **executive authorities** in **accordance** with the provisions of section 12A of the Public



Service Act of 1994 or persons performing similar functions in organs of state from conducting business with the State or to be a director of a public or private company conducting business with the State. The offence for doing so is a fine or imprisonment for a period not exceeding 5 years or both. It is also a serious misconduct which may result in the termination of employment by the employer.

NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.

NOTE: 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the annual statements particulars of any award made to a close family member in the service of the state.

NOTE: 5 Corrupt activities which give rise to an offence in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other moneys stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.

NOTE: 6 Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship which have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

## Annexure E: Municipal declaration and returnable documents

The following particulars must be furnished in relation to tenders for municipalities and municipal entities where:

- a) consultancy **services** are required; and
- b) goods, services or a combination thereof where the **estimated** total of the prices exceeds R 10 million including VAT.

In the case of a joint venture, **separate** municipal **declarations** and returnable **documents** shall be submitted in respect of each partner.

### Section 1: Enterprise Details

<b>Name of enterprise:</b>	
<b>Contact person:</b>	
<b>Email:</b>	
<b>Telephone:</b>	
<b>Cell no</b>	
<b>Fax:</b>	
<b>Physical address</b>	
<b>Postal address</b>	

### Section 2: Declaration for consultancy services:

The enterprise has been awarded the following consultancy services by an organ of state during the last five years.

Name of organ of state	Estimated number of contracts	Nature of service, e.g, quantity surveying	Service similar to required service (yes / no)?

Attach **separate** page as necessary

### Section 3 Goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT

I / we certify that

1) (tick one of the boxes):

- ☐ the enterprise **is not** required by law to prepare annual financial statements for auditing
- ☐ the **enterprise is** required by law to have audited annual financial statements and **attached** the audited financial statements for the past three financial years, or since the establishment as the **enterprise** was established within the past three years.



2) the enterprise and its **directors** has / have no undisputed commitments for municipal **services** towards a municipality or other service provider in respect of which payment is overdue for more than 30 days (*i.e.: all municipal accounts are paid up to date*);

3) source of goods and / or services:

(tick one of the boxes and insert **percentages** if **applicable**):

- ☐ **goods and /** or services are **sourced** only from within the Republic of South Africa
- ☐ % of the total cost of goods and / or **services** will be **sourced** from outside the Republic of South Africa and the percentage of **payment** from the **municipality** or municipal entity which is **expected** to be **transferred** out of the Republic is

I furthermore confirm that the following **contracts** were **awarded** to the enterprise by an organ of state during the last five years and **attached** particulars of any **material** non-compliance or dispute concerning the **execution** of such **contracts**:

Name of organ of state	Estimated number of contracts	Nature of contracts

Attach separate page as necessary

I, the undersigned who warrants that I am duly **authorised** on behalf of the tendering entity, hereby declare that the contents of this Declaration are within my personal knowledge, and save where stated **otherwise** are to the best of my belief both true and correct

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

**Enterprise name** \_\_\_\_\_

**Annexure F: Certificate of Attendance at a tender site meeting**

This is to certify that (*Tenderer*)

.....  
of

(*address*).....  
.....  
.....

was represented by the person(s) named below at the compulsory meeting held for all tenderers at  
**MAKHADO MUNICIPALITY Civic Centre.**

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

**Particulars of person(s) attending the meeting:**

Name: .....

Signature:

.....

Capacity: .....

Name: .....

Signature: .....

Capacity: .....

**Attendance of the above person(s) at the meeting is confirmed by the  
Employer's representative, namely:**

Name: .....

Signature: .....

Capacity: .....

Date and Time: .....

**Annexure G: Certificate of Authority of Joint Ventures/ Close corporations/  
Partnership/ Company/ Sole proprietor (Certified Copies of the  
Identity Documents in the Case of sole proprietor)**

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

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**(I) Certificate for Company**

I, ....., chairperson of the Board of Directors of  
....., hereby confirm that by resolution of the Board (copy  
attached) taken on ..... 20....., Mr./Ms. ...., acting in the capacity  
of  
....., was authorized to sign all documents in connection with the  
tender for Bid No. 95/2017 and any contract resulting from it on behalf of the company.

**Chairman:** .....

**As Witnesses:** 1.....

2.....

**Date:** .....

**(II) Certificate for Close Corporation**

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

..... hereby authorize Mr./Ms. ...., acting in the capacity of ..... to sign all documents in connection with the tender for Bid No. 70 of 2022 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

**(II) Certificate for Partnership**

We, the undersigned, being the key partners in the business trading as, ..... hereby authorize Mr./Ms. ....,

acting in the capacity of ..... to sign all documents in connection with the tender for Bid No. 70 of 2022 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

**(IV) Certificate for Joint Venture**

This Returnable Schedule is to be completed by joint ventures.

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

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

**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 Joint Venture as a whole.

**(V) Certificate for Sole Proprietor**

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

Signature of Sole owner: . . . . .

As Witnesses:

Date:

1. . . . .

2. . . . .

**Annexure H: Registration Certificate of an Entity**

***[Important note to Tenderer: Registration Certificates for Companies, Close Corporations and Partnerships, and ID documents for Sole Proprietors, must be attached here. In the case of a Joint Venture, a copy of a duly signed Joint Venture Agreement must be included]***



**Annexure I: Schedule of the Tenderer's Experience**

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	CONSULTING ENGINEER: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

Tenderer \_\_\_\_\_

## Annexure K: Format of Curriculum Vitae of Key Personnel

Provide separate forms for each position listed in the Form: Key Personnel

Site Agent

## Annexure J: Schedule Key Personnel

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

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

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS					
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Site Agent, Project Managers						
Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc.						
Artisans and other Skilled workers						
Plant Operators						
Unskilled Workers						
Others: .....						
.....						
.....						
.....						

Signed

Date

## Annexure K: Format of Curriculum Vitae of Key Personnel

Provide separate forms for each position listed in the Form: Key Personnel

**Site Agent**  
Name \_\_\_\_\_

Position \_\_\_\_\_

*Tenderer*

<b>Name:</b>	<b>Date of birth:</b>
<b>Profession:</b>	<b>Nationality:</b>
<b>Qualifications:</b>	
<b>Professional Registration Number:</b>	
<b>Name of Employer (firm):</b>	
<b>Current position:</b>	<b>Years with firm:</b>
<b><u>Employment Record:</u></b>	
<b><u>Experience Record Pertinent to Required service:</u></b>	

### **Certification:**

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

**Annexure K: Format of Curriculum Vitae of Key Personnel**

Provide **separate** forms for each position listed in the Form: Key Personnel

**Site Agent**

*Signature of person named in the **schedule***

*Date*

## Annexure K: Format of Curriculum Vitae of Key Personnel

Provide separate forms for each position listed in the Form: Key Personnel

### Site Foreman

[illegible]

**Certification:**

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

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

.....  
Date



## Annexure K: Format of Curriculum Vitae of Key Personnel

Provide separate forms for each position listed in the Form: Key Personnel

**Safety Officer**

[illegible]**Certification:**

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

Signature of **person** named in the schedule

.....  
Date

**Annexure L: Schedule of Proposed Subcontractors**

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

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

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

	<b>Name and address of proposed Subcontractor</b>	<b>Nature and extent of work</b>	<b>Previous experience with Subcontractor.</b>

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

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

Tenderer .....

**Annexure M: Schedule of Plant and Equipment**

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

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

Tenderer \_\_\_\_\_

### Annexure N: Proof of Workmen's Compensation Registration Certificate

The Tenderer must attach hereto proof of compliance with the relevant requirements of the compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993) OR proof of payment of contributions in terms of the Compensation for Occupational injuries and Diseases Act No.130 of 1993.

### Annexure RDP. Employment of EME or QSE

Subcontracting to be a minimum of **30%** to an EME or QSE which is at least 51% **owned** by black people including youth, women , people with disabilities, people living in rural areas or townships and military veterans

We notify you that it is our intention to employ EME or QSE subcontractors for work in this contract to comply with the stipulated **30% requirement**.

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.

Item No.	Description of Work to be executed by EME or QSE Subcontractors	Value of the work
1.		R
2.		R
3.		R
4.		R
5.		R
Total value of work committed to SMME companies		R
Percentage of total contract value		%

**Annexure P: BBBEE Certificate / Sworn Affidavit**

*[BBBEE Certificate / Sworn Affidavit to be attached here]*



**Annexure Q: Form of Intent to Provide a Performance Guarantee**

*The Tenderer must attach hereto a letter from the bank with whom he has made the necessary arrangements, to the effect that the said bank or institution will be prepared to provide the required performance guarantee when asked to do so.*

**PRO-FORMA FOR A PERFORMANCE GUARANTEE****PERFORMANCE GUARANTEE**

**Employer:** (Name and Address) .....

.....

**Bid No:** .....

(Contract title) .....

**WHEREAS**

.....

(hereinafter referred to as "the Employer") entered into, a Contract with

.....

.

(hereinafter called "the Contactor") on the .....day of .....  
20....  
for the construction of (Contract Title)

.....

.

at

.....

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

AND WHEREAS ..... (hereinafter referred to as "the Guarantor") 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 exclusion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor. However, upon receipt by us of an authenticated copy of the Certificate of Completion in terms of the Contract, the amount of liability shall be reduced by 50%, which shall be in force until the issue of the Final Approval Certificate at expiry of the Defects Liability Period
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the sum of

.....  
 .

..... (in words)

R ..... (in figures)

(10 % of the tender sum) which amount I/we agree to hold at your disposal.

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

I/We declare that I/we, on behalf of the Guarantor, waive the legal exceptions available to a guarantor and undertake to pay the said amount or such portion thereof as may be demanded, immediately on receipt of a written demand from you.

A **certificate** under your hand shall be sufficient and **satisfactory evidence** as to the amount of the Guarantor's liability for the purpose of enabling **provisional sentence** or any similar relief to be obtained against the Guarantor.

This guarantee is neither negotiable nor transferable, and must be surrendered to the Guarantor in the event of the full amount of the Guarantee being paid to the Employer.

7. I/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.....

As witnesses:

1. .... Signature .....

2. .... Signature .....

Duly authorized to sign on behalf of (*Guarantor*) .....

Address .....

.....

.....

## Annexure R: Tax Clearance Certificate

***Tax Clearance Certificate obtained from SARS to be inserted here.***

### IMPORTANT NOTES:

1. The following is an abstract from the Preferential Procurement Regulations 2001 promulgated with the Preferential Policy Framework Act No 5 of 2000:

#### **Tax clearance certificate**

16. No **contract** may be awarded to a person who has failed to submit an original Tax Clearance Certificate from the South African Revenue Service ("SARS") certifying the taxes of that person to be in order or that suitable arrangement have been made with SARS."
2. Before entering into a **contract** with a successful Tenderer, the Employer will confirm with the CIDB that the Tenderer's registration is active and the expiry date of the tax certificate
3. The ST 5.1 form, Application for Tax Clearance Certificate (in respect of tenders), must be **completed by the tenderer in every detail and submitted to the Receiver of Revenue** where the tenderer is registered for income tax purposes. The Receiver of Revenue will then furnish the tenderer with a Tax Clearance Certificate that will be valid for 12 months from date of issue. **This Tax Clearance Certificate must be submitted in the original with the tender before the closing time and date of the tender.**

Each party to a Consortium / Joint Venture / Subcontractors must complete a separate Tax Clearance Certificate.

**Failure to submit an original and valid Tax Clearance Certificate ISSUED BY SARS WITH YOUR BID DOCUMENT AT THE TIME OF CLOSING will invalidate the tender.**

## APPLICATION FORM FOR TAX CLEARANCE CERTIFICATE/

~~(IN RESPECT OF TENDER)~~

1. NAME OF TAXPAYER/TENDERER: .....

2. TRADE NAME: .....

3. IDENTIFICATION No. (if applicable):

[illegible]

4. COMPANY/CLOSE CORPORATION REG No.:

--	--	--	--	--	--	--	--	--

5. INCOME TAX REFERENCE No. :

[illegible]

6. VAT REGISTRATION No.

[illegible]

7. PAYE EMPLOYERS REG No. (if applicable) :

[illegible]

**NB: Copy of the tender request must be attached to this application.**

CONTACT PERSON REQUIRING TAX CLEARANCE CERTIFICATE:

SIGNATURE: .....

NAME: .....

TELEPHONE NUMBER : CODE: ..... NUMBER: .....

ADDRESS : .....

DATE : 200. .... / .... / ....

Please note that the Commissioner for the South African Revenue Service (SARS) will not exercise his discretionary powers in favour of any person with regard to any interest, penalties and/or additional tax leviable due to the late or underpayment of taxes, duties or levies or the rendition of returns by any person.

NAME OF PERSON RESPONSIBLE FOR CONTRACT: \_\_\_\_\_

(ST 5.1) March 1999

**NB:** *This is a pro forma application form that has to be submitted to SARS to enable them to issue the required Tax Clearance Certificate. The original and valid Tax Clearance Certificate furnished by the Receiver of Revenue must be submitted with the tender (to be attached to the next page).*



**TAX CLEARANCE CERTIFICATE**

***[Tax Clearance Certificate obtained from SARS to be attached here]***

## Annexure S: Execution Programme

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of the Tender.

PROGRAMME														
ACTIVITY	WEEKS / MONTHS													

[Note: The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Table (b) of the Form hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]

SIGNATURE: ..... DATE: .....  
 (of person authorized to sign on behalf of the Tenderer)

## Annexure T: Contractor's Health and Safety Declaration

In terms of Clause 4(4) of the OHSA 1993 Construction Regulations 2003 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2003.

To that effect a person duly authorized by the tenderer must complete and sign the declaration hereafter in detail.

### Declaration by Tenderer

1. I, the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2003.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I hereby confirm that adequate provision has been made in my tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2003, including the cost of the specific items listed in the tables hereafter.

### ***(Tables to be completed by Tenderer)***

TABLE 1: COST OF SAFETY PERSONNEL

PERSONNEL	COSTS AS ALLOWED IN TENDER	NOMINATED PERSON/S
Construction Supervisor		
Construction Safety Officer		
Health and Safety Representatives		
Health and Safety Committee		

TABLE 2: COST OF SAFETY EQUIPMENT

EQUIPMENT	STATE YES or NO	COST ALLOWED FOR IN TENDER
Hard hats		
Safety boots		
Harnesses		
Gas detectors		
Add items as per risk assessment:		

4. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, which plan shall be subject to approval by the Employer.
5. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2003 will be provided on site and will always be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer and his Agents, visitors, and officials and inspectors of the Department of Labour.
6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations (Regulation 30) for failure on the Contractor's part to comply with the provisions of the Act and the Regulations.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

SIGNATURE: ..... DATE: .....  
 (of person authorized to sign on behalf of the Tenderer)

**U: Contractor's Safety Plan**

***[The Tenderer shall submit separately before commencement of the works his Health and Safety Plan as required in terms of Regulation 5 of the Occupational Health and Safety Act 1993 Construction Regulations 2003, and referred to in T2.1]***

**Annexure V: Proforma Notification form in terms of the Occupational Health and Safety Act 1993, Construction Regulations, 2014**

***[This form must be completed and forwarded, prior to commencement of work on site, by all Contractors that qualify in terms of Regulation 3 of the Construction Regulations 2003, to the office of the Department of Labour]***

1.

(a) Name and postal address of Contractor:

(b) Name of Contractor's contact person:

Telephone number: .....

2. Contractor's workman's compensation registration number: .....

3. (a) Name and postal address of client:

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

(b) Name of client's contact person or agent: .....

Telephone number: .....

4. (a) Name and postal address of designer(s) for the project: .....

(b) Name of designer's contact person: .....

Telephone number: .....

5. Name of Contractor's construction supervisor on site appointed in terms of:

Regulation 6(1): ..... Telephone

number: .....

6. Name/s of Contractor's sub-ordinate supervisors on site appointed in terms of regulation 6(2):

7. Exact physical address of the construction site or site office: .....

8. Nature of the construction work: .....



9. Expected commencement date: .....
10. Expected completion date: .....
11. Estimated maximum number of persons on the construction site: .....
12. Planned number of subcontractors on the construction site accountable to Contractor: .....
13. Name(s) of subcontractors already chosen: .....

SIGNED BY: .....

CONTRACTOR: .....

DATE: .....

CLIENT: .....

DATE: .....

## **THE CONTRACT**

**PART C1: AGREEMENTS AND CONTRACT DATA**

**PART C2: PRICING DATA**

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## MAKHADO MUNICIPALITY

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## MAKHADO MUNICIPALITY

## MAKATU TO TSHIKOTA ACCESS ROAD

## C1.1-1 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: 70 of 2022; MAKATU TO TSHIKOTA ACCESS ROAD**

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.

The above offered total price is binding and the bid will be evaluated based on that price.

**Signature Block: Bidder**

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

## Acceptance

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

The terms of the contract, are contained in:

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

Signature of witness ..... Date .....

Name of witness .....



## 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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**MAKHADO MUNICIPALITY**

**MAKATU TO TSHIKOTA ACCESS ROAD****Situated in****MAKHADO MUNICIPALITY****C1.2 Contract Data**

*The General Conditions of Contract for Construction Works (3<sup>rd</sup> edition 2015) published by the South African Institution of Civil Engineers, is applicable to this contract. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineers (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.*

## **MAKATU TO TSHIKOTA ACCESS ROAD**

**Situated in**

**MAKHADO MUNICIPALITY**

### **C1.2.1: CONDITIONS OF CONTRACT**

**GENERAL CONDITIONS OF CONTRACT**

**SPECIAL CONDITIONS OF CONTRACT**

- 1. GENERAL**
- 2. AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT**
- 3. TRANSFER OF RIGHTS**

## C1.2.1 CONDITIONS OF CONTRACT

### GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the "General Conditions of Contract for Construction Works - (3<sup>rd</sup> Edition 2015)", issued by the South African Institution of Civil Engineers (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

#### 1. 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 2010 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.

#### 2. 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.

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

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 Employers Agent, 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 Employers Agent 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 Employers Agent, 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 Employers Agent, 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 5.11.6 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  
 $Nw$  = 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:

Based on records taken at: **Rainfall Station: Makhado**

**Average No of Days with Rainfall exceeding 10mm: 69.2 days/year**

**Average Rainfall: 949.1 mm/year**

**Years of record: 1941-2015**

Month	Average rainfall for calendar month Rn	Average number of days for calendar month on which a rainfall of 10 mm or more were recorded Nn
	(mm)	(days)
January	188.8	8.4
February	114.7	6.7
March	94.5	5.8
April	101.3	3.87
May	9.6	1.5
June	9.2	0.7
July	13.4	0.4
August	8.3	0.7
September	41.3	1.9
October	56.2	5.5
November	134.6	8.6
December	177.3	8.3

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."

#### 2.1.7 Guarantee (Security) (CL 6.2)

Delete the contents of the first paragraph of Clause 6.2.1 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 Employers Agent. 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 Employers Agent. Issue by the Employers Agent to the Employer and Contractor of any signed payment certificate is conditional to this information being fully endorsed, accurately and timeously submitted to the Employers Agent".

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:

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

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 Employers Agent 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 (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 Employers Agent, 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 Employers Agent 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 Employers Agent written notice that the said materials or work have been condemned and **rejected** by the Employers Agent 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 Employers Agent'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 Employers Agent 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.
- 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 Employers Agent, 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 Employers Agent, 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."

### 3. 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:

- a) the Form of Offer and Acceptance.
  - b) amplifications of the General Conditions of Contract within the **Contract Data**.
  - c) **additional** special conditions or amendments to the General Conditions of Contract within the **Contract Data**.
  - d) the General Conditions of **Contract**.
  - e) 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 Employers Agent shall issue any necessary clarification or instruction.



**4. 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
<b>Total Value of Materials and goods</b>					



**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.**

**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 1.1.13: The ~~defects~~ liability period is 12 months measured from the date of the completion certificate.

Clause 1.1.14: Time to achieve practical completion is **8 months**

Clause 1.1.15: **Name of Employer: Makhado Municipality represented by Head of Department: Department of Technical Services**

Clause 1.2.1: **Address of Employer:**

The Employer's address for receipt of communications is  
Postal: Private Bag x2596, Makhado, 0920

Clause 1.1.16: **Name of Employers Agent**  
'Employers Agent' means any **Director, Associate or Professional** Employers Agent appointed by a **Director of Dane Projects** to fulfil the functions of the Employers Agent in terms of the Contract Data.

Clause 1.2.1: **Address of Employers Agent:**

Physical:

Postal:

The Employers Agent's address for receipt of communications is:

32 King Edward Drive  
Tzaneen  
0850

P.O. Box 578  
Tzaneen  
0850

E-Mail: admin@daneprojects.co.za

Telephone No: (015) 307 4098

Fax No: (086) 111 3989

Clause 3.2: The Employers Agent is required to obtain the specific approval of the Employer for the following:

- a) Nominating the Employers Agent's **Representative** in terms of CI 3.3.1.
- b) **Delegation** of Employers Agent's authority in terms of CI 3.2.4.
- c) The issuing of **instructions** for dealing with fossils and the like in terms of CI 4.7.1
- d) The issuing of an instruction to accelerate **progress** in terms of CI 5.7.3.
- e) Granting permission to work during **non-working** times in terms of CI 5.8.1.
- f) The issuing of further drawings or instructions in terms of CI 5.9.1.
- g) Suspend the progress of the works in terms of CI 5.11.1.
- h) The reduction of a penalty for delay in terms of CI 5.13.2.
- i) The issuing of a variation order in terms of CI 6.3.2.
- j) Issuing of **instructions** to carry out work on a day work basis in terms of CI 6.4.1.4.
- k) The **determination** of additional or reduced costs arising from changes in legislation in terms of CI 6.8.4.
- l) The agreeing of the **adjustment** of the sums for general items in terms of CI 6.11.
- m) Authorizing the Contractor to repair and make good excepted risks in terms of CI 8.2.2.
- n) The giving of a ruling on a contractor's claim in terms of CI 10.1.5.
- o) The agreeing of an extension to the 28 period in terms of CI 10.1.5.1.

p) 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 receipt 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 Employers Agent, 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 **R 5 000** 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:

**Contract Price Adjustment Factor** =  $(1 - x) \left[ \frac{aL_t}{L_o} + \frac{bP_t}{P_o} + \frac{cM_t}{M_o} + \frac{dF_t}{F_o} - 1 \right]$  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", P is the "Plant Index" M is the "**Material** Index" and F is the "Fuel Index" is and shall be the "Consumer Price Index – for Polokwane Area" as published by SAFCEC

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 6 months.**

Clause 6.8.3: Price adjustments for variations in the costs of **special materials** will not be **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 10 %, excluding **contract** price adjustment, contingencies and VAT, and limited to 5% 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 **SPECIAL** **Dispute** resolution shall be by Adjudication.

i) The minimum local labour target is **10%** of the tender sum

Clause 10.7.1: Dispute Resolution shall be by Adjudication.

### **Payment for labour-intensive component of the works**

Payment for works identified in the Scope of Works 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 payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict

### **Linkage of payment for labour-intensive component of works to submission of project data**

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.

### **Applicable Labour Laws**

The current Ministerial Determination (also downloadable at [www.epwp.gov.za](http://www.epwp.gov.za)), Expanded Public Works Programmes, issued in terms of the Basic Condition of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled workers.

**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** within Eight (8) months (including special **non-working** days and the **year-end** 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**.

**C1.3 Form of Guarantee - Pro Forma**

The Municipal Manager  
Makhado Municipality  
Private Bag 2596, Makhado  
0920

**CONTRACT; 70 of 2022****FOR****MAKATU TO TSHIKOTA ACCESS ROAD****GUARANTOR DETAILS AND DEFINITIONS**

"Guarantor" means:.....

Physical address:.....

"Employer" means: **MAKHADO MUNICIPALITY**

"Contractor" means:.....

"Engineer" means: **DANE PROJECTS (PTY) LTD**

"Works" means:

"Site" means: **MAKATU TO TSHIKOTA ACCESS ROAD**

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

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

Amount in words:.....

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

Amount in words:.....

"Expiry Date" means:.....

**CONTRACT DETAILS**

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the **Certificate** Completion of the Works as defined in the Contract.



## PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the mount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
  - 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be constructed as any intention whatsoever to create an accessory obligation or and intention whatsoever to create a suretyship;
  - 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
  - a. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
  - b. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
  - c. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
- 5.1 Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
  - 5.2 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
  - 5.3 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
  - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 6 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- 7 Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 8 Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 9 Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- 10 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 11 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

- 12 This Performance Guarantee is **neither** negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 13 The Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 14 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No.32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, **notwithstanding** that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at.....

Date.....

Guarantor's signatory (1).....

Capacity .....

Guarantor's signatory (2).....

Capacity.....

Witness signatory (1).....

Witness signatory (2).....

**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:

1. The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the **Procedure**.
3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the **Contract Data**.
4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavor to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

**SIGNED by:**

(Signature): .....

**Name:** .....

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

(Signature): .....

**Name:** .....

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

(Signature): .....

**Name:** .....

the **Adjudicator** in the presence of

**Witness:**

**Witness:**

**Witness:**

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

**C1.5: AGREEMENT IN TERMS OF THE MINE HEALTH AND SAFETY ACT, (ACT No. 29 OF 1996) AS AMENDED BY THE MINE HEALTH AND SAFETY AMENDMENT ACT (ACT No. 72 OF 1997)**

THIS AGREEMENT is made at ..... on this the ..... day of ..... in the year ..... between The **MAKHADO MUNICIPALITY** (hereinafter called the "EMPLOYER" of the one part, herein represented by:

..... in his capacity as: ..... and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act No. 7 of 1998;

AND: .....

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

..... in his capacity as: ..... and duly authorised to sign on behalf of the Contractor.

WHEREAS the Employer is desirous that certain works be constructed, (insert contract title) and has accepted a tender by the Contractor for the construction, completion and maintenance of such works and whereas the Employer and the contract have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Contractor with the provisions of the Mine Health and Safety Act (Act 29 of 1996); as amended by the Mine Health and Safety Amendment Act (Act No. 27 of 1997).

**NOW THEREFORE** the parties agree as follows:

1. The contractor shall obtain the Mining Authorisation for the particular site where mining activities, as defined in the Mine Health and Safety Act, No. 29 of 1996 as amended, are to be conducted.
2. The contractor shall assume responsibility for the Environmental Management Programme (EMPR) in respect of the site and shall ensure that the site is rehabilitated at the conclusion of the contract.
3. The contractor declares himself to be conversant with:
  - a) all the requirements, regulations and standards of the Act, together with its amendments.
  - b) the procedures and safety rules of the Employer as pertaining to the Contractor and to all his sub-contractors.
4. The contractor is responsible for the compliance with the Act and its amendments by all his subcontractors, whether or not selected and/or approved by the Employer.

SIGNED ON BEHALF OF THE EMPLOYER

AS WITNESS:

1.....

2.....

NAME(Print):

NAME(Print):

\*\*\*\*For official use only

SIGNED ON BEHALF OF THE CONTRACTOR

AS WITNESS:

1.....

2.....

NAME(Print):

NAME(Print):



## MAKATU TO TSHIKOTA ACCESS ROAD

### Situated in MAKHADO MUNICIPALITY

## C2.1: PRICING INSTRUCTIONS

### 1. 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 c of SANS 10845-3:2015, as amended in and read in conjunction with the Bid Data.

### 2. 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.

### 3. 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. <sup>1</sup>
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. <sup>1</sup>
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 apply. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the other. <sup>1</sup>



#### 4. 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.

#### 5. 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 specification<sup>2</sup>, or the project specification<sup>2</sup>, or the particular specification(s)<sup>2</sup> conflict with the terms of the schedule or, when relevant, COLTO<sup>1</sup>, 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

#### 6. 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	=	mega newton

MN-m	=	mega newton-metre
MPa	=	mega Pascal
kPa	=	kilopascal
m <sup>2</sup>	=	square metre
m <sup>3</sup>	=	cubic metre
m <sup>3</sup> -km	=	cubic metre-kilometre
m <sup>2</sup> -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

## 7. NET MEASUREMENTS

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

## 8. 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).

## 9. 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.

## 10. 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.

## 11. RATES AND PRICES

### 11.1 General

- a) 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.
- b) 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.

- c) 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.
- d) 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.
- e) 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.
- f) 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.
- g) 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.

#### 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.

The offered total price, as contained in the Form of Offer and Acceptance, is binding. Where there is an additional error in the offered total price, such error will be **corrected** by the Employer by adjusting rates taking into account that the bid price is binding.

### 12. 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.

- 13 Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a deviation from the contract. The items marked with the letters 'LI' are not necessarily an exhaustive list of all the activities, which must be done by hand, and this clause does not over-ride any

of the requirements in the generic labour intensive specification in the Scope of Works.

- 14 Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.
- 15 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the scope of works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work, which was to be done labour-intensively will not be condoned, and any works so constructed will not be certified for payment.

# MAKATU TO TSHIKOTA ACCESS ROAD

## BID No. 70 of 2022

### C2.2 Bill of Quantities

## MAKHADO MUNICIPALITY

MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1200

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1200		GENERAL REQUIREMENTS AND PROVISIONS				
B12.01	LIC	Locating existing services	Prov Sum	1	R 50,000.00	R 50,000.00
B12.02	LIC	Hand <del>excavation</del> to <del>determine</del> the positions of existing services	m³	200		
B12.03		Quality control tests ordered by the Engineer	Prov Sum	1	R 120,000.00	R 120,000.00
B12.04		<del>Employment</del> of Community Liaison Officer (CLO) for the duration of the contract @ R5000pm)	Prov Sum	8	R 5,000.00	R 40,000.00
B12.05		Provisional sum for <del>protection</del> and/ or <del>relocation</del> of existing services as ordered by Engineer	Prov Sum	1	R 800,000.00	R 800,000.00
B12.06		Provisional sum for payment of contract notice board as <del>instructed</del> by Engineer	Prov Sum	2	R 15,000.00	R 30,000.00
B12.07		Provision for <del>attending steering committee meetings</del>	Prov Sum	1	R 10,000.00	R 10,000.00
B12.08		Provisional sum for training	Prov Sum	1	R 200,000.00	R 200,000.00
B12.09		<del>Provisional</del> sum for land <del>acquisition</del>	Prov Sum	1	R 30,000.00	R 30,000.00
B12.10		<del>Percentage</del> for charges and profit on the <del>provisional</del> sums for <del>contractor's</del> cost and profit	%	R 1,280,000		
TOTAL CARRIED FORWARD						



MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1300

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1300		CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
B13.01		Contractor's general obligations				
		(a) Fixed obligations	Lump Sum	1		
		(b) Value-related obligations	Lump Sum	1		
		(c) Time-related obligations	Month	8		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1400

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1400		HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL				
B14.01		Office and <del>laboratory accomodation</del> :				
		The provision of <del>accomodation</del> as <del>specified</del> , including roof, external and internal walls, windows <del>complete</del> with glazing, doors with locks and fittings, burglar proofing, painting, floors, fencing, the provision of a 220/250 volt electrical installation wit				
		(a) Offices (interior floor space only)	m <sup>2</sup>	20		Rate Only
		(b) <del>Laboratories</del> (interior floor space only)	m <sup>2</sup>			
		(e) Ablution units	m <sup>2</sup>	20		
B14.02		Office and <del>laboratory</del> furniture:				
		(a) Chairs	No	12		
		(d) Desks, <del>complete</del> with drawers and locks	No	2		
		(f) <del>Conference</del> tables	No	1		
B14.03		Office and <del>laboratory</del> fittings, installations and <del>equipment</del> :				
		(a)(xv) Steel filing cabinets with drawers	No	1		
14.07		<b>Rented, hotel and other accommodation:</b>				
		(a) <del>Provisional</del> Sum for providing rented housing, hotel or other <del>accommodation</del> as <del>described</del> in Subsubclause 1403(c)(ii)		Prov	Sum	150,000.00
		(b) Handling costs and profit in respect of subitem 14.07(a)	%	R 150,000.00		
14.08		Services				
		(a) Services at office and <del>laboratories</del>				
		(i) Fixed costs	Lump Sum	1		
		(ii) Running costs	Month	8		
14.10		<b>Provision of photostat facilities</b>				
B14.11		Provision of cellular <del>telephone</del> to the Engineer				
		(a) Cost of cellular phone, calls and other charges	Prov Sum	1	R 5,000.00	R 5,000.00
		(b) Handling cost and profits in respect of item B14.11(a)	%	5000		
B14.12		<b>Supply of computers and printers:</b>				
		(b) Printers		Prov	Sum	5,000.00
		(c) Handling cost and profits in respect of item B14.12(a) and (b)	%	R 5,000.00		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1500

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
B15.01		ACCOMMODATION OF TRAFFIC  Accommodating traffic and maintaining temporary deviations	km	4		
B15.02		Earthworks for temporary deviations: (a) Shaping of temporary deviations	km	4		
		(b) Cut and borrow to fill	m <sup>3</sup>			Rate Only
		(c) Cut to spoil	m <sup>3</sup>			Rate Only
B15.03		Temporary traffic-control facilities: (a) Flagmen	man days	300.00		
		(b) Portable STOP and GO-RY signs	number	4		
		(e) Road signs, R- and TR-series, (i) 900mm diameter	number	50.00		
		(ii) 1200mm diameter	number	50.00		
		(f) Road signs, TW-series, with distance board (i) 1220mm sides	number	25		
		(ii) 1524mm sides	number	25		
		Road signs, STW-, DTG-, TGS- and TG-series (excluding delineators and barricades)	m <sup>2</sup>	15		
		(b) Existing roads used as temporary deviations	km-pass			Rate Only
		Road signs, STW-, DTG-, TGS- and TG-series (excluding delineators and barricades)	m <sup>2</sup>	5		
		(h) Delineators (DTG50J), (i) Single (800mmx200mm)	number	20.00		
		(ii) Mounted back to back (800mmx200mm)	number	10.00		
		(i) Movable barricade (chevron and ROAD CLOSED type)	number	4.00		
		(j) Traffic cones (750mm high)	number	20.00		
		(m) Two-way communication devices	number			Rate Only
		(n) Provision of high visibility jackets and safety hats	number	3		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY

MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1500

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
<b>TOTAL BROUGHT FORWARD</b>						<b>R 0.00</b>
15.04		Temporary <del>traffic-control</del> facilities:	-	lump	sum	
15.05		Gravelling and repair of <del>temporary deviations</del> and existing gravel shoulders used as <del>temporary deviations</del> :				
		(a) Temporary <del>deviations</del>	m <sup>3</sup>			Rate Only
15.06		Watering of <del>temporary deviations</del>	kilolitre	1,000		
15.07		Blading by road grader of:				
		(a) Temporary <del>deviations</del>	km-pass			Rate Only
		(b) Existing roads used as <del>temporary deviations</del>	km-pass			Rate Only
15.10		Accommodation of traffic where the road is <del>constructed in half-widths</del>	km			Rate Only
15.12		Temporary culverts:				
		(a) Provision and laying of temporary <del>prefabricated</del> culverts complete:				
		(1) 750 mm dia 75D	m			Rate Only
		(2) 900 mm dia 75D	m			Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>						

MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD; 47/2018

## SECTION 1600

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
1600		OVERHAUL				
16.01		Overhaul on material hauled in excess of a free-haul distance of 0.5km, for haul up to or through 1.0km (restricted <b>overhaul</b> )	m³	48,654		
B16.02		Overhaul on material hauled in excess of 1.0km (ordinary <b>overhaul</b> )	m³km	170,289		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION 1700

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
1700		CLEARING AND GRUBBING				
B17.01		Clearing and grubbing	ha	4		
17.02		Removal and grubbing of large trees and stumps				
		(a) Girth exceeding 1m up to and including 2m	No	6		
		(b) Girth exceeding 2m up to and including 3m	No	3		
TOTAL CARRIED FORWARD TO SUMMARY						



MAKHADO MUNICIPALITY  
MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SECTION B1800

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
B18.00		DAYWORK SCHEDULE				
B18.01		Day work				
		(a) Normal hours of duty of:				
		(i) Unskilled labour	hr	20		
		(ii) Semi-skilled labour	hr	20		
		(iii) Skilled labour	hr	20		
		(iv) Foreman	hr	20		
B18.02		Hire of construction equipment				
		(a) Excavator				
		Minimum power: 75kW (16 ton)				
		Manufacturer.....				
		Model.....	hr	6		
		(b) TL Backactor				
		Minimu power: 50kW (similar to Case 580G)				
		Manufacturer.....				
		Model.....	hr	6		
		(c) Front end loader				
		Minimum power: 60kW (Similar to Cat 920)				
		Manufacturer.....				
		Model.....	hr	5		
		(d) Platform truck				
		Minimum load mass: 4t	hr	5		
		(e) Tip truck				
		Minimum load mass: 4t Minimum load capacity: 6m3	hr	5		
		(f) Grader (CAT 140G or similar)	hr	5		
		(g) Walk behind roller (Bomag BW90 or similar)	hr	5		
		(h) Mechanical Broom	hr	5		
		(i) D6 Dozer	hr	5		
		(j) Compressor complete with two hand-held tools and attachments				
		Minimum capacity: 7m3/minute				
		Manufacturer.....				
		Model.....	hr	5		
		(k) Submersible dewatering pump, 40 m3/h, with hoses and power supply				
		Manufacturer.....				
		Model.....	hr	5		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
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## SECTION 2100

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2100		DRAINS				
21.01		Excavation for open drains				
	LIC	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	LIC	(i) 0m up to 1.5m	m <sup>3</sup>	360		
	LIC	(ii) Exceeding 1.5m and up to 3.0m	m <sup>3</sup>			Rate Only
		Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	80		
21.03		Excavation for subsoil drainage systems:				
		(a) Excavating material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1,5m	m <sup>3</sup>	30		
		(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	5		
		Impermeable backfilling to subsoil drainage systems	m <sup>3</sup>	20		
21.06		Natural permeable material in subsoil drainage systems (crushed stone)				
		(b) Crushed stone obtained from commercial sources (19.0mm)	m <sup>3</sup>	20		
21.06		Natural permeable material in subsoil drainage systems (sand)				
		(b) Sand obtained from approved sources	m <sup>3</sup>	7		
21.08		Pipes in subsoil drainage systems:				
	LIC	(a) 110mm Ø uPVC perforated pipes	m	50		
		(b) 160mm Ø uPVC perforated pipes	m			Rate Only
		(c) 110mm Ø uPVC collector pipe	m			Rate Only
		(d) 160mm Ø uPVC outfall pipe	m			Rate Only
21.10	LIC	Geotextile/Geomembrane	m <sup>2</sup>	120		
21.12		Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for drainage systems:				
	LIC	(a) Outlet structures	No			Rate Only
	LIC	(b) Manhole boxes	No			Rate Only
	LIC	(d) Cleaning eyes	No			Rate Only
21.13		Concrete caps for subsoil drain pipes	No			Rate Only
B21.21		Subsoil Markers	No	2		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2200		PREFABRICATED CULVERTS				
B22.01		Excavation:  (a) <b>Excavating</b> soft material situated within the following depth ranges below the surface level:				
	LIC	(i) 0m up to 1.5m	m³	400		
		(ii) <b>Exceeding</b> 1.5m and up to 3.0m	m³	200		
		(b) Extra over subitem 22.01(a) for <b>excavation</b> in hard material, <b>irrespective</b> of depth	m³	50		
22.02		Backfilling:				
	LIC	(a) Using the <b>excavated</b> material	m³	100		
	LIC	(b) Using imported selected material	m³	200		
		(c ) Extra over subitems 22.02(a) and (b) for soil cement backfilling (4%)	m³	120		
22.03	LIC	<b>Prefabricated</b> pipe culverts:				
		(b) On Class C bedding				
		(i) 750mm diameter	m			Rate Only
		(ii) 600mm diameter	m			Rate Only
		(iii) 450mm diameter	m			Rate Only
		(iv) 300mm diameter	m			Rate Only
22.05	LIC	Precast rectangular culverts				
		(b) Without <b>prefabricated</b> floor				
	LIC	(i) 1200mm x 900mm	m	125		
		(i)1200mm x 1200mm	m	180		
		(i)1500mm x 1500mm	m			Rate Only
22.07		Cast in situ concrete and <b>formwork</b> :				
	LIC	(b) In floor slabs for portal or <b>rectangular</b> culverts, including <b>formwork</b> and class U2 surface finish(Class 30/19)	m³	98		
	LIC	(c) Inlet and outlet structures, skewed ends, catchpits, <b>manholes</b> , thrust and anchor blocks, excluding <b>formwork</b> but including class U2 surface finish (Class 30/19)	m³	40		
	LIC	(d) Formwork of concrete under subitem 22.07(c) above (F2 finish)	m²	300		
TOTAL CARRIED FORWARD						

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
TOTAL BROUGHT FORWARD						
22. 10		Steel reinforcement				
	LIC	(b) High-tensile steel bars	t	5		
	LIC	(c) Welded steel fabric (ref 888)	kg	1,300		
B22,18		Rockfill from commercial sources	m³	400		
22.12	LI	Removing existing concrete:				
		(a) Plain concrete	m³	5		
		(b) Reinforced concrete	m³	5		
22.14	LI	Removing and stacking existing prefabricated pipes(all sizes)	m	10		
22.25		Overhaul on excavated material carted to spoil, backfill material (but excluding Portland cement in the case of soil cement), existing structures demolished and removed to spoil, and removing and relaying, and removing and stacking existing prefabricated culverts, for haul in excess of the free-haul distance	m³-km	1,200		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2300		CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01	LIC	Concrete Kerbing				
		(a) Cast in situ kerbing (Class 25/19)				
		(ii) Figure 8c Cast in-situ mountable kerb (Class 25/19)	m			Rate Only
		(c) Precast kerb to SABS 927 (Class 25/19)				
		(i) Figure 8c mountable kerb (Class 25/19)	m	4,600		
		(ii) Figure 8C non-mountable kerb (Class 25/19)	m	2,300		
23.07	LIC	Trimming of excavations for concrete-lined open drains and drifts				
		(a) In soft material	m²	700		
		(b) In hard material	m²	4,000		
23.08		Concrete Lining for Open Drains				
		(a) Cast in situ concrete lining ( 25MP for open drains, egde drains and drifts)	m³	660		
		(b) To sides with formwork on both internal and external faces (each face measured)	m²	1,500		
B39.01		Sawing asphalt or cemented pavement				
		(b) Sawing cemented pavement layers to an average depth:				
		(i) Not exceeding 50 mm	m²	240.00		
23.10		Sealed joints in concrete linings of open drains (type 2)	m			Rate Only
23.12		Steel reinforcement				
		(b) Welded steel fabric Ref 311	kg	23,800		
23.13		Polyethylene sheeting (0.15mm thick) for concrete-lined open drains	m²	4,600		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3100		BORROW MATERIALS				
31.01		Excess <del>overburden</del>	m³	7,000		
31.03		Finishing-off borrow areas in:				
		(a) Hard material	ha	1.0		
		(b) <del>Intermediate</del> material	ha	1.0		
		(c) Soft material	ha	1.0		
TOTAL CARRIED FORWARD TO SUMMARY						



MAKHADO MUNICIPALITY  
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## SECTION 3300

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3300		MASS EARTHWORKS				
33.01		Cut and borrow to fill, including free-haul up to 1.0km:				
		(a) Material in <b>compacted</b> layer thickness of 200mm and less:				
		(ii) Compacted to 93% of modified AASHTO density	m³	9,000		
33.04		Cut to spoil, including free-haul up to 1.0km. Material obtained from:				
		(a) Soft <b>excavation</b>	m³	11,000		
		(b) <b>Intermediate excavation</b>	m³	4,000		
		(c) Hard <b>excavation</b>	m³	500		
		(d) Boulder <b>excavation</b> Class B	m³	2,000		
33.07		Removal of <b>unsuitable</b> material (including free-haul of 0.5 km):				
		(b) In layer <b>thicknesses</b> exceeding 150mm				
		(i) Stable material	m³	600		
		(ii) Unstable material	m³	600		
33.10		Roadbed <b>preparation</b> and compaction of material:				
		(b) <b>Compaction</b> to 93% of Mod AASHTO density	m³	9,200		
33.13		Finishing-off cut and fill slopes, medians and <b>interchange</b> areas:				
		(a) Cut slopes	m²	1,614		
		(b) Fill slopes	m²	9,040		
B33.20		Fill <b>constructed</b> with material obtained from <b>commercial</b> sources or sources provided by the Contractor, including all haul:				
		(e) Pioneer layer	m³	80		
TOTAL CARRIED FORWARD						

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## SECTION 3400

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3400		PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01		Pavement layers constructed from gravel taken from cut to stock pile on site or borrow, including free-haul up to 1,0 km:				
		(a) Gravel selected layer compacted to: 90% of modified AASHTO density for a compacted layer thickness of 150 mm	m <sup>3</sup>	120		
		(b) Gravel selected layer compacted to: 93% of modified AASHTO density for a compacted layer thickness of 150 mm	m <sup>3</sup>	5,200		
		(d) Gravel subbase compacted to:				
		(ii) 97% of modified AASHTO density (150mm layer thickness)	m <sup>3</sup>	5,000		
		(f) Gravel base (cement stabilized material) compacted to:				
		(i) 97% of modified AASHTO density (150mm layer thickness)	m <sup>3</sup>	4,554		
	(g)	Gravel shoulders compacted to:				
		(i) 93% of modified AASHTO density for a compacted layer thickness of 150 mm	m <sup>3</sup>	1,980		
34.02		Extra over item 34.01 for excavation of material in:				
		(a) Intermediate excavation	m <sup>3</sup>	300		
		(b) Hard excavation	m <sup>3</sup>	300		
TOTAL CARRIED FORWARD TO SUMMARY						

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## SECTION 3500

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3500		STABILISATION				
35.01		Chemical <del>stabilisation</del> 150mm layer <del>thickness</del> extra over <del>unstabilized compacted</del> layers (base & subbase layer)	m³	4,554		
35.02		Chemical <del>stabilising</del> agent: (a) CEM II, 32.5 BV	t	334		
35.04		<del>Provisions</del> and <del>application</del> of water for curing	kl	5,000		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY

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## SECTION 3600

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3600		CRUSHED-STONE BASE				
36.01		<p>Crushed-stone base:</p> <p>(a) Constructed from type G1 material obtained from commercial sources and compacted to 88% of apparent relative density, 150mm thick layer</p>	m³	120		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
4100		PRIME COAT				
B41.01		Prime coat: (e ) MSP1 cut-back bitumem	l	650		
41.02		Aggregate for blinding	m²	60		
TOTAL CARRIED FORWARD TO SUMMARY						

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## SECTION 4200

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
42.01		ASPHALT BASE AND SURFACING  Asphalt base 45mm thick:  (a) Using 80/100 penetration-grade bitumen (80/100 penetration-grade bitumen)  (i) Continuously graded	m <sup>2</sup>	680		
42.03		Rolled-in chippings in surfacing, . . . . . mm*	t	R.O		
42.04		Tack coat of 30% stable-grade emulsion	litre	390		
TOTAL CARRIED FORWARD TO SUMMARY						



ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5100		PITCHING, STONework AND PROTECTION AGAINST EROSION				
51.01		Stone pitching:				
	LIC	(b) Grouted stone pitching	m²	1,200		
51.05		Concrete edge beams, 200 x 300mm				
	LIC	(a) Class 25/19	m³	40		
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>						

MAKHADO MUNICIPALITY  
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## SECTION 5200

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5200		<b>GABIONS</b>				
52.01	LI	<b>Foundation trench excavation and backfilling:</b>				
		(a) In solid rock (material which requires blasting)	m <sup>3</sup>	50		
		(b) In all other classes of material	m <sup>3</sup>	10		
52.02	LI	<b>Surface preparation for bedding the gabions</b>	m <sup>2</sup>	120		
52.03	LI	<b>Gabions:</b>				
		(a) Gabion boxes (80x100 Mesh and 2.2mm dia wire)				
		(i) 4x1x1m	m <sup>3</sup>	20		
		(ii) 2x1x1m	m <sup>3</sup>	20		
		(iii) 1x1x1	m <sup>3</sup>	20		
		(b) Gabion mattresses (80x100 Mesh and 2.2mm dia wire)				
		(i) 6x2x0.3m	m <sup>3</sup>	10		
52.05	LI	Kaymat U24 filter geofabric	m <sup>2</sup>	600		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY

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## SECTION 5400

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5400		<b><u>GUARDRAILS</u></b>				
54.01	LI	Guardrails on timber posts: (a) Galvanized	m			Rate Only
54.02	LI	Guardrails on steel posts: (a) Galvanized	m	30		
54.04	LI	End treatments: (a) End wings	number	2		
		(d) End treatments in accordance with the Drawings where single guardrail sections are used	number	2		
54.06	LI	Reflective plates	number	12		
TOTAL CARRIED FORWARD TO SUMMARY						

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## SECTION 5500

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5500		FENCING				
55.02	LIC	Supply and erect new fencing material for new fences and supplementing material in existing fences which are being repaired or removed:				
		(a) Six (6) Strands high tensile, 2.24mm barbed wire (Class A Fully Galvanised); 1.2m high @ borrow-pit	m	1,200		
55.03	LIC	New gate: government pattern farm gate manufactured from 42,86mm x 2,64mm steel tubing including hinges, washers, bolts and locking chain attached to gate fully galvanised	no	2		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
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## SECTION 5600

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5600		ROAD SIGNS				
56.01		Road sign boards with painted or coloured <b>semi-matt</b> background. Symbols, lettering and borders in semi-matt black or in Class I <b>retroreflective</b> material where the sign board is constructed from:				
		(c) <b>Prepainted galvanised</b> steel plate ( <b>chromadek</b> or <b>approved</b> equivalent):				
		(i) Area not <b>exceeding</b> 2m <sup>2</sup>	m <sup>2</sup>	30		
		(ii) Area exceeding 2m <sup>2</sup> but not 10m <sup>2</sup>	m <sup>2</sup>	20		
B56.02		Extra over item 56.01 for using:				
		(a) Background of <b>retro-reflective</b> material:				
		(i) Class I	m <sup>2</sup>	50		
		(b) Lettering, symbols, numbers, arrows, <b>emblems</b> and borders of retro-reflective material				
		(i) Class II	m <sup>2</sup>	20		
56.03		Road sign supports				
	LIC	(a) 75mm diameter <b>galvanized</b> steel tubing	t	1.5		
56.05	LIC	<b>Excavation</b> and backfilling for road sign supports	m <sup>3</sup>	20		
56.06	LIC	Extra over item 56.05 for cement- treated soil back fill	m <sup>3</sup>	15		
B56.10	LIC	Danger plates at <b>culverts/structures</b> (a) Type A <b>stormwater</b> culverts (150mmx600mm) (Back to Back)	No	12		
TOTAL CARRIED FORWARD TO SUMMARY						

MAKHADO MUNICIPALITY  
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## SECTION 5700

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5700		ROAD MARKINGS				
B57.02		Road-marking paint (retro reflective paint)				
		(a) White lines(broken or unbroken)				
	LIC	(1) 100 mm wide	km	4		
	LIC	(2) 3000 mm wide	km	1		
		(b) Yellow lines (broken or unbroken)				
	LIC	(1) 100 mm wide	km			Rate Only
	LIC	(d) White lettering and symbols	m <sup>2</sup>	80		
	LIC	(e) Yellow lettering and symbols	m <sup>2</sup>	80		
	LIC	(f) Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>			Rate Only
B57.06	LIC	Setting out and premarking the lines (Excluding traffic-island markings, lettering and symbols)	km	4		
B57.07		Establishment of the painting unit during the construction period	Lump Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						



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## SECTION 5900

ITEM		DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5900		FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59.01		Finishing the road and road reserve:				
		(b) Single carriageway road	km	4		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM		DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
7300		CONCRETE BLOCK PAVING FOR ROADS				
73.01	LI	Concrete block paving:				
		(a) 25Mpa interlocking block, 80mm thick on 20mm sifted sand	m²	27,280		
73.02	LI	Cast in situ concrete edge and intermediate beams	m³	50		
73.03		Provision of approved herbicide and ant poison:				
		(a) Provision of materials	1		PC Sum	R 150,000.00
		(b) Contractor's charges and profit added to the Prime Cost S	%	R 150,000		
TOTAL CARRIED FORWARD TO SUMMARY						

## MAKHADO MUNICIPALITY

MAKATU TO TSHIKOTA ACCESS ROAD: 47/2018

## SUMMARY OF SCHEDULE A

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SECTION 1300		CONTRACTOR'S ESTABLISHMENT ON SITE GENERAL OBLIGATION	R
SECTION 1400	LIC	HOUSING OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	R
SECTION 1500	LIC	ACCOMMODATION OF TRAFFIC	R
SECTION 1600		OVERHAUL	R
SECTION 1700		CLEAR AND GRUBBING	R
SECTION B 1800		DAYWORK SCHEDULE	R
SECTION 2100	LIC	DRAINS	R
SECTION 2200	LIC	PREFABRICATED CULVERTS	R
SECTION 2300	LIC	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	R
SECTION 3100		BORROW MATERIALS	R
SECTION 3300		MASS EARTHWORKS	R
SECTION 3400		PAVEMENT LAYERS OF GRAVEL MATERIAL	R
SECTION 3500		STABILISATION	R
SECTION 3600		CRUSHED-STONE BASE	R
SECTION 4100		PRIME COAT	R
SECTION 4200		ASPHALT BASE AND SURFACING	R
SECTION 5100	LIC	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION	R
SECTION 5400	LIC	GABIONS	
SECTION 5400	LIC	GUARDRAILS	
SECTION 5500	LIC	FENCING	R
SECTION 5600	LIC	ROAD SIGNS	R
SECTION 5700	LIC	ROAD MARKINGS	R
SECTION 5900		FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	R
SECTION 7300		CONCRETE BLOCK PAVING FOR ROADS	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULE A			

**MAKHADO MUNICIPALITY**  
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**CALCULATION OF TENDER AMOUNT**

**TOTAL OF THE SUMMARY OF SCHEDULES (A + B + C)** R .....

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**CONTIGENCIES**

The Tenderer shall add contingencies of 10% of the total amount of Schedule of Quantities R .....

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**CPA**

The Tenderer shall add CPA of 5% of the total amount of Schedule of Quantities R .....

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**SUB TOTAL** R .....

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**VALUE ADDED TAX**

The Tenderer shall add 15% of the subtotal for value added tax R .....

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**TENDER SUM CARRIED TO FORM OF TENDER** R .....

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## MAKATU TO TSHIKOTA ACCESS ROAD

Situated in

### MAKHADO MUNICIPALITY

#### C3: SCOPE OF WORK

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#### C3.1 STANDARD SPECIFICATIONS

#### C3.2 PROJECT SPECIFICATIONS

##### PART A: GENERAL

PS-1	Project Description
PS-2	Description of the Site and Access
PS-3	Details of the Works
PS-4	Construction Management Requirements
PS-5	Expanded Public Works Programme (EPWP) labour intensive specification

##### PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

B1	Project Specifications Relating to the Standard Specifications and Other Additional Specifications
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Section	1100	Definitions
Section	1200	General Requirements and Provisions
Section	1300	Contractor's Site Establishment on Site and General Obligations
Section	1400	Housing, Offices and Laboratories for the Engineer's Site Personnel
Section	1500	Accommodation of Traffic
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Section	2300	Concrete Kerbing, Concrete Channeling, and Chutes and Down pipes and Concrete Linings for Open Drains
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Section	3400	Pavement Layers of Gravel Material
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### C3.3 PARTICULAR SPECIFICATIONS

#### SECTION EMP: ENVIRONMENTAL MANAGEMENT SPECIFICATION

1. General
2. Training and Induction of Employees
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15. Safety
16. Soil Management
17. Worker Conduct
18. Traffic Disturbances and Diversions
19. Vegetation
20. Waste Management

#### SECTION DWK: DAYWORKS

1. Scope
2. Type of Work
3. Materials
4. Construction Plant Hire
5. Salaries and Wages of Workmen
6. Measurement and Payment

#### SECTION OHS: PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

1. Introduction and Background
2. 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
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  - 2.7 Incentives and Penalties
  - 2.8 Specific Project Requirements
3. Financial Provision for Health and Safety
4. Guidelines for the preparation of a Typical OH&S Plan



### 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.
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**MAKATU TO TSHIKOTA ACCESS ROAD**

**Situated in**  
**MAKHADO MUNICIPALITY**  
**of the Limpopo Province**

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

**Labour-intensive works**

Labour-intensive works shall be **constructed/maintained** using local **workers** who are temporarily employed in terms of this Scope of Work.

**Labour-intensive competencies of supervisory and management staff**

Contractors shall **engage** supervisory and **management** staff in labour-intensive works that have completed the skills programme including **Foremen/Supervisors** at NQF "National **Certificate: Supervision of Civil Engineering Construction Processes**" and **Site Agent/Manager** at NQF level 4 "Manage labour-intensive **Construction Processes**" or equivalent QCTO qualifications.

The **Makhado Municipality** envisages the **Upgrading** from gravel to concrete block paved 6.1km length of road under the **project**.

The works to be carried out **comprise** mainly the following:

- Site establishment
- Setting up level of control
- Accommodation of traffic, including the **erection** of temporary road signs and other traffic control devices
- Earthworks
- Road bed preparation
- Construction of pavement layers

- Construction of paving blocks
- Construction of culverts
- Construction of concrete or stone pitching v-drain to control storm water
- Road markings and road signs
- Repairs of any defects during the Defects Liability period

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

The site is located in Risaba. The locality plan is as **attached** under clause C4.1-LOCALITY PLAN and also **annexed** in the tender drawings booklet.

Length		South	East
3 971m	Start	22° 53' 21"	30° 09' 29"
	End	22° 52' 41"	30° 08' 46"

**PS-3 DETAILS OF THE WORKS**

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

**Scope of Work**

The total length of road is 3.971km road will be **constructed** with the following **specificaions**

The **pavement structure** will be as follows:

(a) Road

LAYER	THICKNESS mm	TRH 4	COMPACTION (% OF)
Surface Treatment	80	S	80mm, 25MPa concrete paving blocks on 20mm sifted river sand
Base	150	C4	Stabilised Layer @ 97% Mod AASHTO;
Selected Layer	150	G7	Natural Gravel Compacted @ 97% Mod AASHTO;
Selected Layer	150	G7	Natural Gravel Compacted To 95% Mod.AASHTO
Roadbed	150	In-situ	In-situ. Rip And Compact To 90% Mod.AASHTO
Shoulder	150	G9	Natural Gravel Compacted To 90% Mod.AASHTO
Fill		G9	Natural Gravel Compacted To 90% Mod.AASHTO

(b) Intersection with R 523

LAYER	THICKNESS mm	TRH 4	COMPACTION (% OF)
Surface Treatment	45	Asphalt	45mm Asphalt Premix

Base	150	G1	Crushed stone base
Upper sub base	150	C3	Stabilised base
Lower sub base	150	C4	Stabilised base
Selected Layer	150	G7	Natural Gravel Compacted To 95% Mod.AASHTO
Roadbed	150	In-situ	In-situ. Rip And Compact To 90% Mod.AASHTO
Shoulder	150	G9	Natural Gravel Compacted To 90% Mod.AASHTO
Fill		G9	Natural Gravel Compacted To 90% Mod.AASHTO

### 3.2 Nature of ground conditions and subsoil conditions

The geotechnical investigation will be made available on request

### 3.6 Climatic conditions

The rainfall data for the area is as adopted from the Makhado weather station as tabulated under clause 2.1.6 of Part C1 of this volume.

### 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.

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 labor is to be used and the employment of such labor 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.
- 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).
- Remuneration of CLO will be at a rate of R 5000.00 per month
- Stipends for PSC will be at R200.00 per sitting per member for eight members sitting twice a month.
- Target for local labour at 10% of tender sum
- Target for local SMMEs at 20% of tender sum.

#### 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.

#### 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: Botshabelo Consulting Engineers.

**4.4** **Planning, Programme and Method Statements** (Read with SANS1921-1:2004 clause 4.3)  
Contract price adjustment will not be applicable

**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.

- a) 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.
- b) A high **standard** of traffic **accommodation**
- c) The relocation of services
- d) Ancillary works by Emerging Contractors
- e)

**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:

- (a) 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.
- (b) The **quantity** of work **applicable** to each bar item as well as the rate at which the work will be completed.
- (c) A budget of the value of completed work, month by month, for the full **contract period**.
- (d) The critical path.
- (e) Work to be **undertaken** by Local Contractor (if applicable)
- (f) Training Courses
- (g) Schedule of plant and **recourses** to be utilized

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

**4.4.3 Time for Completion**

The Time for Completion for the Works shall be **8 months**

**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.

**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.

**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



Telkom	Telephone lines
Makhado Municipality	Water and sewer lines and reticulation within the rural area
Department of Water and Sanitation	Bulk water and sewer lines
Tribal Authority	Land owner, graves
Private owners	Property boundaries and perimeter fencing.

Estimate quantities and specifications were included in the bill of quantities for the protection and/or shifting of services (Bill item 12.01-Relocation of existing 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.

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 Plans

###### (a) Employer'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.

###### (b) 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:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 30;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and

- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 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

#### 4.12.3 Cost of compliance with the OHSA 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.

#### 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.

##### 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° R949 in Government Gazette 33665 of 22 October 2010, as reproduced below, shall apply to works described in the scope of work as being labour.

**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 –



- (a) "department" means any department of the State, implementing agent or contractor;
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP;
- (c) "worker" means any person working in an elementary occupation on a EPWP;
- (d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;
- (e) "management" means any person employed by a department or implementing agency to administer or execute an EPWP;
- (f) "task" means a fixed quantity of work;
- (g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
- (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
- (i) "time-rated worker" means a worker paid on the basis of the length of time worked.

#### 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–

- (a) more than forty hours in any week
- (b) on more than five days in any week; and
- (c) for more than eight hours on any day.

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 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 –

(a) **absent** from work for more than two consecutive days; or

(b) **absent** from work on more than two occasions in any eight-week period.

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.

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 –

(a) **four weeks** before the expected date of birth; or

(b) on an earlier date –

(i) if a **medical** practitioner, **midwife** or **certified** nurse **certifies** that it is **necessary** for the health of the worker or that of her unborn child; or

(ii) if agreed to **between** employer and **worker**; or

(c) on a later date, if a medical **practitioner**, **midwife** or certified nurse has certified that the worker is able to continue to work **without endangering** her health.

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 -

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of –
  - (i) the employee's spouse or life partner;
  - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

#### 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 –

- (a) the employer's name and address and the name of the EPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the 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.

#### 5.1.14 Keeping Records

5.1.14.1 Every employer must keep a written record of at least the following –

- (a) the worker's name and position;
- (b) in the case of a task-rated worker, the number of tasks completed by the worker;
- (c) in the case of a time-rated worker, the time worked by the worker;
- (d) payments made to each worker.

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 R170.00 per day or per task. This will be adjusted annually on the 1<sup>st</sup> of November in line with inflation (Available CPI as provided by Stats SA six (6) weeks before implementation)

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 –
- (a) at the **workplace** or at a place **agreed** to by the worker;
  - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
  - (c) in a sealed **envelope** which becomes the property of the worker.
- 5.1.15.8 **An employer** must give a worker the following **information** in writing –
- (a) the period for which **payment** is made;
  - (b) the numbers of tasks completed or hours **worked**;
  - (c) the **worker's** earnings;
  - (d) any money **deducted** from the payment;
  - (e) the actual **amount** paid to the worker.
- 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.
- 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.
- 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 –
- (a) repay any payment except an **overpayment** previously made by the **employer** by mistake;
  - (b) state that the worker **received** a greater **amount** of money than the **employer** actually paid to the worker; or
  - (c) 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 –
- (a) work in a way that does not **endanger** his/her health and safety or that of any other **person**;
  - (b) obey any health and safety **instruction**;
  - (c) obey all health and safety rules of the EPWP;
  - (d) use any **personal** protective equipment or clothing issued by the employer;
  - (e) 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 employers (other than a **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.

#### 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.

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

## 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 normal Government Gazette rate as published by the department of labour and revised annually will be applicable in case the Makhado Municipality do not have a set rate for the Locals and EPWP Projects. When Government Gazette becomes applicable, the rate will change when the new rates become gazetted by the Minister of Labour

5.2.1.3 Tasks established by the contractor must be such that:

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

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:

- a) where the head of the household has less than a primary school education;
- b) that has less than one full time person earning an income;
- c) where subsistence agriculture is the source of income.
- d) 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:

- a) 55 % women;
- b) 55% youth who are between the ages of 18 and 35; and
- c) 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.

#### 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–

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.

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.

## **PART B: AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATIONS**

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

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

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

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

## **SECTION 1100: DEFINITION AND TERMS**

*In all cases where "Directorate Transport Planning" appears in the text or in drawings contained in this document it shall be read as "MAKHADO MUNICIPALITY".*

**SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS****B1202 SERVICES**

*DELETE AND REPLACE THE WORDS :*

"Clause 15 of the general conditions of contract" *in the first sentence of the eleventh paragraph with* "Clause 5.6 of the General Conditions of Contract for construction works third Edition 2015 edition."

**B1205 WORKMANSHIP AND QUALITY CONTROL**

*ADD THE FOLLOWING :*

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

**B1206 THE SETTING-OUT OF WORK AND PROTECTION OF BEACONS**

*DELETE THE ENTIRE CONTENTS OF THE FIRST PARAGRAPH AND THE FOLLOWING WORDS IN THE FIRST SENTENCE OF THE SIXTH PARAGRAPH:*

"and of clause 14 of the general conditions of contract."

*ADD THE FOLLOWING:*

The contractor will be responsible for verifying all dimensions of existing structures before setting out the works.

**B1209 PAYMENT**

*AMEND SUB CLAUSE (E) MATERIALS ON SITE BY DELETING AND REPLACING THE WORDS:*

"Clause 52 of the general conditions of contract" *IN THE FIRST SENTENCE OF THE FIRST PARAGRAPH WITH:* "Clause 6.10 of the General Conditions of Contract for construction works third Edition 2015 edition."

**B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS**

*DELETE AND REPLACE THE WORDS IN THE FIRST PARAGRAPH :*

"Clause 54 of the general conditions of contract" *in the fourth line of the first sentence with:* "Clause 5.14 of the General Conditions of Contract for construction works third Edition 2015 edition."

**B1212 ALTERNATIVE DESIGNS AND OFFERS**

*ADD THE FOLLOWING TO THE END OF SUB CLAUSE (M) :*

"The provision for contract price adjustment in the original Bid summary may not, under any circumstances, be altered in an alternative Bid"

**B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL**

*DELETE AND REPLACE THE WORDS IN THE FIRST PARAGRAPH:*

"Clause 45 of the General Conditions of Contract" *IN THE FIRST LINE OF THE FIRST SENTENCE WITH:* "Clause 5.12 of the General Conditions of Contract for construction works third Edition 2015 edition."

*ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:*

"Method (I) (Rainfall formula) shall be used on this contract.  
The average rainfall of the area is 450.5 mm/year."

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

DELETE AND REPLACE THE WORDS IN THE FIRST PARAGRAPH :

"Clause 35 of the **general conditions of contract**" IN THE SECOND LINE OF THE FIRST SENTENCE WITH: "Clause 8.2 of the General Conditions of Contract for **construction works** third Edition 2015 **edition**."

**B1224 THE HANDING-OVER OF THE ROAD RESERVE**

ADD THE FOLLOWING:

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

**B1229 SABS CEMENT SPECIFICATIONS**

REPLACE ALL PARAGRAPHS WITH THE FOLLOWING:

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

Old product nomenclature	Typical new product nomenclature	
	Cement type	Cement strength class
OPC	CEM I	32,5
	CEM I	32,5R
RHC	CEM I	42,5
	CEM I	42,5R
LASRC	No provision made	No provision made
PC15SL	CEM II/A-S	32,5
	CEM II/A-S	32,5R
	CEM II/A-S	42,5
PC15FA	CEM II/A-V	32,5
	CEM II/A-V	32,5R
	CEM II/A-W	32,5
	CEM II/A-W	32,5R
RH15FA	CEM II/A-V	42,5
	CEM II/A-V	42,5R
	CEM II/A-W	42,5
	CEM II/A-W	42,5R
PBFC	CEM III/A	32,5
	CEM III/A	32,5R
PFAC	CEM II/B-V	32,5
	CEM II/B-W	32,5



RH30SL	CEM II/B-S	32,5R
	CEM II/B-S	42,5
RH40SL	CEM III/A	32,5R
	CEM III/A	42,5

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members."

ADD THE FOLLOWING NEW SPECIFICATIONS:

#### "B1230 ENVIRONMENTAL IMPACT CONTROL

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

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

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

#### "B1231 WORKMEN'S COMPENSATION ACT

All labour employed on the site shall be covered by the Workmen's Compensation Act. The Contractor shall pay in full, including the payment of the necessary levies, such amounts as are due in terms of the Act.

The manner in which Workmen's Compensation shall be handled shall be resolved by the Contractor at the commencement of the contract."

**"B1232 CARE OF WORKS, DAMAGE, INJURY AND INSURANCE**

Compliance with Road Traffic Act:

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

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

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

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

**SECTION 1300 : GENERAL REQUIREMENTS AND PROVISIONS****B1303 PAYMENT**

ADD THE FOLLOWING AT THE END OF ITEM 13.01(1).

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

ADD THE FOLLOWING NEW PAY ITEMS:

ITEM	UNIT
<b>"B13.02 <u>Provision for a Community Liaison Officer</u></b>	
a) Provisional sum for the payment of the Community Liaison Officer and PSC Members	P Sum
b) Handling cost and profit in respect of sub-item (a) above (state % and extent as an amount)	Percentage (%)

The provisional amount for sub-items B13.02 (b)(I) allows for the remuneration of the community liaison officer. The reimbursement shall be a fixed amount per month to be instructed by the Engineer.

The percentage Bided in pay items B13.02(a)(II), (IV) and (b) (II) shall be applied to the amount expended under pay items (a)(I), (a)(III) and (b)(I) respectively to generate an amount that covers all the monies required by the contractor for managing costs that may arise from the payment, including the contractor's profit and overheads."

ITEM	UNIT
<b>"B13.03 <u>Provision for accredited training</u></b>	
a) Generic skills	P Sum
b) Entrepreneurial skills	P Sum
c) Handling cost and profit in respect of sub-item (a) and (b) above (state % and extend as an amount)	Percentage (%)
d) Training venue (only if required)	L Sum

The percentage Bided in pay items B13.03 (c) and (d) shall be applied to the amount expended under pay items (a) and (b) respectively to generate an amount that covers all the monies required by the contractor for managing costs that may arise from the payment, including the contractor's profit and overheads."

ITEM	UNIT
<b>"B13.04 <u>Contract name board:</u></b>	
(a) Supply and erect one contract name board	Lump Sum

The Bided lump sum shall be for full compensation for providing two contractor's name board as detailed on the drawings, erected at appropriate position to be indicated by the engineer. The rate shall include all materials, manufacturing, delivery to site and erection of the board and all materials, plant and labour required for the erection of the board."



<u>ITEM</u>		<u>UNIT</u>
<b>"B13.05</b>	<b><u>Relocation of existing services:</u></b>	
(a)	<b>Excavating material within the following depth ranges below ground level for the exposing of/or searching for services:</b>	
(i)	0m to 2m:	
	(1) soft material	cubic metre (m³)
	(2) hard material	cubic metre (m³)
(b)	Extra over item B13.05(a) for excavation by means of hand tools such as picks, crowbars and pneumatic tools or mechanical breakers in close vicinity of services where no machine excavation is permitted:	
	(1) soft material	cubic metre (m³)
	(2) hard material	cubic metre (m³)
	Measurement and payment for excavations shall be as specified for item 22.01 in the standard specifications.	
(c)	<b>Backfilling</b>	
(i)	Using the excavated material	cubic metre (m³)
(ii)	Using imported selected material	cubic metre (m³)
(d)	<b>Relocation of services</b>	
(i)	Provisional sum for the relocation of existing services	Prov. Sum
(ii)	Handling costs and profit in respect of sub-item B13.05(d)	Percentage (%)

The provisional sum provided shall cover the cost of any existing services that might need to be relocated or extended or any work to existing services as ordered in writing by the Engineer. 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.

<u>ITEM</u>		<u>UNIT</u>
<b>"B13.06</b>	<b><u>Occupational Health &amp; Safety:</u></b>	
	"Provision for the cost related to the Occupational Health and Safety Act, 85 of 1993, and the relevant Regulations:	
(a)	Preparation of a Health and Safety Plan	L Sum
(b)	Compilation of a risk assessment prior to construction	L Sum
(c)	Health and Safety Induction Training of employees	L Sum
(d)	Compilation and keeping up with date the Health & Safety file which shall include all documentation required in terms of the Act. Implementation of the health and Safety plan over the entire construction period	Month
(e)	Provisional sum for the appointment of an independent Occupational Health & Safety Agent to perform safety audits on behalf of the client and all other requirements as required by the Act.	P Sum
(f)	Special Information Signs	P Sum

- (g) Handling costs and profit in respect of sub-item B13.06(e) and (f) above Percentage (%)

The Bided sums shall include full compensation for providing the above services as required from the Occupational Health and Safety Act. The rate shall include all related costs incurred by the Act, remuneration to personnel, trainers, etc. and equipment required for the execution of the required services as depicted by the Act. The Bided amount for items a, b and c shall only be paid on the successful completion of each task as approved by the client or his Agent. The Bided amount for item d shall be paid on a monthly basis.

The amount under (e) shall be paid within thirty (30) days of receiving a invoice from the independent Occupational Health & Safety Agent appointed by the client.

Measurement and payment in respect of the provisional sum item shall be made in accordance with the provisions of the general conditions of contract."

**ITEM****UNIT****"B13.07      Confirmation of survey data and benchmarks**

- |     |  |                |
|-----|--|----------------|
| (a) | Provisional Sum for the confirmation and setting out of benchmarks and survey data as required by the Engineer | Prov. Sum      |
| (b) | Handling costs and profit in respect of sub-item B13.07(a)   | Percentage (%) |

The provisional sum shall cover all costs in verifying, setting out and confirming existing benchmark PI's etc as ordered in writing by the engineer."

**SECTION 1400 : HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL****B1402 OFFICES AND LABORATORIES****(a) General**

ADD THE FOLLOWING NEW PARAGRAPH AT THE END OF THIS SUB-CLAUSE:

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

ADD THE FOLLOWING NEW SUB CLAUSE:

**"1402 (i) Survey equipment**

The contractor shall provide and make **available** at all times for the exclusive use of the Engineer and his staff the **necessary** survey equipment comprising of the following:

- a) 1 x **tachometer** capable of reading to 20 **seconds** of arc with tripod,
- b) 1 x engineer's automatic level with tripod,
- c) 2 x **tachometer** staff with staffs bubble,
- d) 1 x level staff with staff bubble,
- e) 2 x ranging rods,
- f) 1 x builder's spirit level of length 900mm,
- g) 1 x steel tape of length 30m,
- h) 1 x **pocket** tape of length 3m,
- i) 1 x 6V, 8-cell torch with spare batteries, and
- j) all steel and wood pegs, concrete, **hammers**, picks, etc., that the Engineer may require.

The **contractor** shall provide proof, at the start of the Contract, that the **tachometer** and level have recently been **served** by an acceptable institution and shall, throughout the Contract, **service** and **maintain** all survey equipment and he shall insure same and indemnify the Employer and the Engineer against all claims for loss, **breakage** or theft of such equipment.

The **tachometer** and tachometer staffs may be **shared** by arrangement **between** the Contractor and the Engineer, but the other instruments shall be **provided** for the **exclusive** use of the Engineer.

On completion of the Works, the equipment will be returned to the Contractor who shall **remove** it from the site.

Two suitable, **trained** and **experienced workmen** to be used as survey assistants and two suitable labourers to assist with control testing shall be made available to the Engineer during the working hours as and when required. As far as practical the same assistants and **labourers**, shall be **allocated** to the Engineer for the full duration of construction."

ADD THE FOLLOWING NEW SUB-ITEM:

<b><u>ITEM</u></b>	<b><u>UNIT</u></b>
"B14.02 (g) i) Survey Equipment needed by the Engineer	P Sum
ii) Handling cost and profit in respect of sub-item B14.02(g)(i)	Percentage (%)

The prime cost sum shall be expended in **accordance** with the **provisions** of the general conditions of contract. Payment to the Engineers shall be made within fourteen (14) days after such order has been given by the engineer. The contractor shall **provide** detailed proof of payment before payment shall be **certified** to the contractor.

The Bided percentage in item B14.02 (g) is an extra over **percentage** on the amount actually spent under

sub-item B14.02 (g) (i) which shall include full compensation for the handling costs and profit of the contractor."

## **B1406 MEASUREMENT AND PAYMENT**

ADD THE FOLLOWING NEW SUB-ITEM:

<b><u>ITEM</u></b>		<b><u>UNIT</u></b>
"B14.03 (b) (ix) 1.	Provision of cellular telephones, computers, printing	P Sum
2.	Provisional sum for the costs of cellular calls and other charges	P Sum
3.	Handling cost and profit in respect of sub-item B14.03(b)(ix) 1 and 2	Percentage (%)

The prime cost sum shall be expended in accordance with the provisions of the general conditions of contract. Payment to the Engineers shall be made within fourteen (14) days after such order has been given by the engineer. The contractor shall provide detailed proof of payment before payment shall be certified to the contractor.

The Bided percentage in item B14.03 (b) (ix)(3) is an extra over percentage on the amount actually spent under sub-item B14.03 (b) (ix)(1, 2) which shall include full compensation for the handling costs and profit of the contractor."



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

*ADD TO CLAUSE 1501 THE FOLLOWING :*

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

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

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

**B1502 GENERAL REQUIREMENTS****(b) Providing Temporary Deviations**

*ADD TO THE SUB-CLAUSE THE FOLLOWING:*

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

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

It is a condition of this contract that not more than 10 km of deviation should be open to public traffic at any one time, and that not more than three separate deviations should be open at any one time. No additional payments will be made where situations arise that the contractor has deviations crossing over the **roadway** under construction."

**(i) Traffic Safety Officer**

*ADD TO SUB-CLAUSE 1502(I) THE FOLLOWING :*

"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 be made available to discuss road safety and traffic **accommodation** matters **whenever** required by the Engineer."

*REPLACE SUB-CLAUSE 1502(I), SUB-SUB-CLAUSES (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 unit shall be adequately referenced to identifiable permanent **features** **located** along the site of the works."

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

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

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

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

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

*ADD TO SUB-CLAUSE 1502(I) THE FOLLOWING NEW SUB-SUB-CLAUSES:*

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

*ADD THE FOLLOWING NEW SUB-CLAUSES TO CLAUSE 1502 :*

**"(j) Public traffic**

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

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

**(k) Failure to comply with provisions**

The failure or refusal of the Contractor to provide barricades or traffic signs at the proper time, or to take the necessary precautions for the safety and convenience of public traffic as specified or instructed by the Engineer, shall be sufficient cause for the suspension of all work under this Contract without any additional compensation to the Contractor until the required accommodation of traffic has been completed to the satisfaction of the Engineer.

**(l) Access to work area**

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



**(m) Extension of time for completion**

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

**B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES**

*REPLACE THE FIRST SENTENCE OF THE FIRST PARAGRAPH OF CLAUSE 1503 WITH THE FOLLOWING :*

"The Contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, channelization devices, barricades, warning devices and road markings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on the drawings and in the South African Road Traffic Signs Manual in conjunction with the latest edition of Road Signs Note No.13 Road works, and remove them when no longer required. It shall be incumbent upon the Contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly, and he shall replace any that have been damaged, lost, stolen or obliterated at his own cost."

*REPLACE THE THIRD PARAGRAPH OF CLAUSE 1503 WITH THE FOLLOWING :*

"The type of construction, spacing and placement of traffic-control devices shall be in accordance with the latest edition of Road Signs Note No.13, Road works, these special provisions, the drawings and the South African Road Signs Manual. The recommended arrangements of the traffic control devices illustrated in Appendices 1 to 6 of Road Signs Note No.13 and/or drawings shall not be departed from without prior approval of the Engineer. Typical arrangements expected to be used in the Contract are given on the Bid drawings.

However, this shall not absolve the Contractor of his obligations in preparing traffic management plans as per this Project Specification.

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."

**(b) Road signs and barricades**

*ADD TO SUB-CLAUSE 1503(B) THE FOLLOWING :*

"The Contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, 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 method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included for in the Bided 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 Road Signs Note No.13.

The covering of permanent road signs, if applicable, shall be by utilising a hessian bag, which shall be pulled over the sign in the form of a hood and fastened to the sign posts. Plastic bags or other materials and fastening by means of adhesive tape shall not be permitted. The cost of covering of permanent road signs shall be deemed to be covered by the Bided rates of items B15.01 and 15.10.

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 the designated time or fail to comply to the requirements, the work on that section will be suspended without any compensation to the Contractor."

**(c) Channelization devices and barricades**

*ADD TO SUB-CLAUSE 1503(C) THE FOLLOWING:*

"Delineators shall be of plastic and shall be capable of withstanding winds caused by passing traffic in typical working conditions without falling over. To achieve this, the base shall be ballasted using sand bags.

Traffic cones manufactured in a fluorescent red-orange or red plastic material shall be used only at short term lane deviations during daylight. Cones used on all deviations shall be 750 mm high. Lane closures which continue into the night time shall be demarcated by delineators only.

All traffic cones and road signs shall be kept clean and visible at all times. All bituminous or other foreign material shall be removed by the Contractor, or the dirty traffic cones and road signs shall be replaced with new ones at the cost of the Contractor, as directed by and to the satisfaction of the Engineer.

The use of steel drums as Channelization devices will not be allowed on this Contract unless instructed by the Engineer. Channelization shall be effected by the use of delineators or cones as detailed in Road Signs Note No. 13 - Road works."

**(e) Warning devices**

*ADD TO SUB-CLAUSE 1503(E) THE FOLLOWING :*

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

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted to ensure clear visibility from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic.

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

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

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

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

*ADD THE FOLLOWING NEW SUB-CLAUSES TO CLAUSE 1503 :*

**“(g) Other signs and 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 with the requirements of the South African Traffic Signs Manual, Road Note 13 or specification provided by the Engineer.

**“(h) High visibility Safety jackets**

The Contractor will be responsible to ensure that all construction workers, staff of the Engineer and visitors shall wear high visibility safety jackets when moving around on site. The jackets shall be of an approved type, orange in Colour and shall be to the approval of the Engineer. The Contractor shall provide the Engineer with six jackets. No separate payment will be made for the jackets.”

**B1511 MAINTENANCE OF GRAVEL TEMPORARY DEVIATIONS AND EXISTING GRAVEL ROADS USED AS TEMPORARY DEVIATIONS**

*ADD TO CLAUSE 1511 THE FOLLOWING :*

“Where applicable, all references to gravel roads and/or diversions shall also include gravel shoulders used as diversions.”

**B1517 MEASUREMENT AND PAYMENT**

*AMEND PAYMENTS AS FOLLOW :*

**ITEM****UNIT**

B15.01	Accommodating traffic and maintaining temporary deviations.	(as specified)
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*ADD THE FOLLOWING:*

“The Bided rate shall also include for the preparation of traffic management plans and their submission to the Engineer for approval.

The Bided rate shall also include for all costs associated with constructing the road under traffic and for complying with the restricted working conditions as per Clause SCC 13.1 of the Special Conditions of Contract.”

**ITEM****UNIT**

B15.04	Relocation of traffic control facilities	Lump sum
--------	--	----------

*ADD TO THE PAYMENT ITEM 15.04 THE FOLLOWING :*

“The Bided lump sum shall cover all costs regardless of how many times the traffic control facilities are relocated. The Contractor can anticipate frequent relocations due to the nature of the site and restrictions on working space. Details of how often traffic control facilities need to be moved should be set out in the traffic management plans.

Payment of this item will be made on a monthly basis over the duration of the Contract, starting when traffic control measures are first implemented. The Bided lump sum shall be divided by the construction period to obtain a monthly claim.”

**SECTION 1600 : OVERHAUL**

**B1602 DEFINITIONS**

**(a) Overhaul material**

*ADD TO SUB-CLAUSE 1602(A) THE FOLLOWING :*

“Overhaul is not measured separately for payment for materials obtained from commercial sources.”



**SECTION 1700 : CLEARING AND GRUBBING****B1704 MEASUREMENT AND PAYMENT**

<b><u>ITEM</u></b>	<b><u>UNIT</u></b>
<b>B17.01 Clearing and grubbing</b>	hectare (ha)

*ADD TO PAYMENT ITEM 17.01 THE FOLLOWING :*

"Clearing and grubbing for the construction of camp sites shall not be measured separately. Payment shall be regarded as included in the rates Bided for the applicable items for the above-mentioned work.

Within the road reserves clearing and grubbing will only be measured and paid for where required for road works."

<b><u>"ITEM</u></b>	<b><u>UNIT</u></b>
B17.01 Clearing and grubbing of:	
a) Normal areas:	
i) Within the road reserve	hectare (ha)
ii) In borrow pits	hectare (ha)
b) Existing fill embankments with slopes steeper than 1:4	hectare (ha)

Measurement and payment for sub-items (a) and (b) shall be as specified for item B17.01 of the standard specifications. Where distinction is made for clearing and grubbing existing fill embankments with slopes steeper than 1:4 (vertical : horizontal), payment shall be made under item B17.01."



**SECTION 1800 : DAYWORKS****B1801 Day works**

Day works are specified in C3.3 Particular Specification, Section DWK: Day works

**B1802 Measurement and Payment**

ADD THE FOLLOWING PAYMENT ITEMS:

<u>ITEM</u>	<u>UNIT</u>
B18.00 DAYWORK SCHEDULE	
B18.01 Laborers:	
(a) Unskilled	hr
(b) Semi-skilled	hr
(c) Skilled	hr
B18.02 Foreman	hr
B18.03 Tipper trucks:	
(a) 3 – 5 ton	hr
(b) 5,1 – 10 ton	hr
B18.04 Loader (0.5 m <sup>3</sup> bucket)	hr
B18.05 Excavator (Cat 350 or similar)	hr
B18.06 Grader (Cat 140G or similar)	hr
B18.07 Compaction Rollers:	
(i) Vibratory roller	hr
(ii) Tamping roller	hr
(iii) Grid roller	hr
B18.08 Hand Controlled Compactors	
(i) Pedestrian roller (Bomag BW90 or similar)	hr
(ii) Vibrating plate	hr
(iii) Rammers (whackers)	hr
B18.09 Back loader (Cat 416D or similar)	hr
B18.10 Water truck (minimum 10 000 liter capacity)	hr
B18.11 Dozer (D7 or similar)	hr
B18.12 Flatbed truck	km
B18.13 LDV (1800cc minimum)	km
B18.14 <u>Materials</u> acquired under day works:	
(a) Provisional sum for materials acquired under days works	P Sum
(b) Handling costs and profit in respect of sub-item 18.16 (a) above	%

The payment of Day works will be dealt with as specified in C3.3 Particular Specification, Section DWK: Day works.

**SECTION 2100 : DRAINS****B2104 SUBSOIL DRAINAGE****(a) Materials****(i) Pipes**

*ADD TO SUB-CLAUSE 2104(A)(I) THE FOLLOWING :*

“Perforated or slotted un-plasticized PVC pipes shall be used for subsurface drainage.”

**(ii) Natural Permeable Material**

*ADD TO SUB-CLAUSE 2104(A)(II) THE FOLLOWING :*

“The crushed stone shall be coarse graded (19 mm nominal size) and shall conform to the following requirements:

Percentage passing through a 26,5 mm sieve : 100 %.

Percentage passing through a 19,0 mm sieve : 60-85 %.”

**ITEM****UNIT**

*ADD TO CLAUSE 2100 THE FOLLOWING :*

“The subsoil drainage shall be installed before construction of any layer works. Construction shall only commence after final approval of subsoil drains by the Engineer.”

B21.20 Galvanised wire mesh 250 x 250 mm, at the outlets  
of subsoil drainage systems. Mesh 10 mm x 2,5 mm  
wire diameter

Number (No)

The unit of measurement shall be the number of 250 mm x 250 mm pieces of wire mesh, with a 10 mm x 10 mm spacing and 2,5 mm wire diameter built into the subsurface drain outlet structure as shown on the drawings.

The Bided rate shall include for procuring, furnishing and installing the material, cutting, waste and keeping the mesh in the pipe opening clean during installation.

**ITEM****UNIT**

B21.21 Subsoil drainage markers

Number (No)

Measurement and payment shall be as specified for item 22.24 in the standard specifications.”

**SECTION 2200 : PREFABRICATED CULVERTS****B2201 SCOPE**

*ADD TO CLAUSE 2201 THE FOLLOWING :*

"It should be noted that the information given on the drawings may have to be altered due to actual site conditions. Construction shall only commence after final approval of information on the drawings.

Precast units shall only be ordered after actual measurements of length on site and not from lengths stated in the schedule of quantities.

The levels given for culverts on the drawings are subject to confirmation on site, and the contractor shall submit all levels to the engineer for confirmation before he commences with construction work for each culvert.

This section also covers work associated with the removal of existing pipes and their inlet and outlet structures. Due to the nature of the project, the Contractor can expect that works associated with the installation of pipe culverts will have to be carried out under traffic."

**B2210 LAYING AND BEDDING OF PREFABRICATED CULVERTS****B.2210 (b) (i) cast in situ invert slabs**

Replace with the following:

"In accordance with the drawings, transverse construction joints are required in cast in situ concrete invert slabs for portal culverts. In addition, longitudinal construction joints as shown on the drawings between the invert slabs of each of the barrels of multiple culverts are required. Allowance for measurement and payment for a Class F1 surface finish and soft board in these joints is made in the bill of quantities. No payment shall be made for formwork on the outside edges of invert slabs (closest to excavated face). All culverts (precast as well as in situ) shall be constructed with an in situ reinforced concrete floor laid on a 75mm concrete screed".

Delete sub clause B.2210 (b) (ii) : "Prefabricated floor slabs."

**B2211 BACKFILLING OF PREFABRICATED CULVERTS**

*ADD TO THE FOURTH PARAGRAPH OF CLAUSE 2211 THE FOLLOWING:*

"Where backfilling is done in the upper layers of the road formation, the quality and strength of the backfill material shall at least match that of the surrounding layers."

**B2218 MEASUREMENT AND PAYMENT**

*Add the following:*

**ITEM****UNIT**

B22.01(c) Extra over sub item B22.01(a) for  
excavation by hand using hand tools

cubic metre (m3)

Measurement shall be as specified for pay item 22.01 of the standard specifications.

The Bided rate shall include full compensation for carrying out the excavations by hand where circumstances prevent the use of mechanical excavators.

**ITEM****UNIT**

B22.07(f) **Formwork** for joints in cast in situ concrete  
invert slabs

- |  |                          |
|--|--------------------------|
| (i) <b>Transverse</b> construction joints (type indicated) | <b>square</b> metre (m2) |
| (ii) <b>Longitudinal</b> joints (as per drawing)           | metre (m)                |

Measurement and payment shall be as specified in item 22.07 of the standard specifications with the exception that **formwork** for construction joints in cast in situ invert slabs in trench conditions as indicated on the drawings, shall be **measured** and paid for in accordance with **section** 6200 of the standard **specifications**. No payment shall be made for formwork to the outside edges of invert slabs (closest to excavated face)."

ITEM	UNIT
B22.08 <b>Concrete</b> backfill for culverts	cubic metre (m3)

Add the following to this item:

"In addition to the requirements for measuring concrete backfill to rectangular culverts as **specified** for item 22.08, the following shall apply:

**Concrete** backfill shall be measured to the actual dimensions of the precast units, i.e. actual volumes **between** ribs and haunches shall be taken into account. For the purpose of calculating **concrete** backfill quantities, the horizontal dimensions of the concrete backfill on the **outside** of the culvert(s) (closest to **excavated** face), shall be taken as 100mm **maximum** irrespective of what type or make of precast portal is used or the actual width of the excavation.

The width of the concrete backfill between portals in the case of multiple culverts, shall be taken as 80mm for **precast** units with a leg height of 1500mm and 100mm for precast units with a leg height **exceeding** 1500mm. The vertical dimensions, in both cases, shall be equal to the height of the portal."

**AMEND PAYMENT ITEM 22.12 TO READ AS FOLLOWS:**

ITEM	UNIT
<b>"B22.12 Removing existing concrete, brickwork and stonework</b>	
(a) Plain concrete	Cubic metre (m <sup>3</sup> )
(b) Reinforced concrete	Cubic metre (m <sup>3</sup> )
(c) Brickwork	Cubic metre (m <sup>3</sup> )
(d) Stone <b>Masonry</b> walls and grouted stone pitching	Cubic metre (m <sup>3</sup> )
(e) General stone pitching	Cubic metre (m <sup>3</sup> )

**ADD TO THE FIRST PARAGRAPH, WHICH DESCRIBES THE UNIT OF MEASUREMENT, THE WORDS: "brickwork and stonework" AFTER THE WORD: "concrete".**

**PARAGRAPHS 2, 3 AND 4 OF PAYMENT ITEM 22.12 IN THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS ITEM B 22.12.**

Add the following new items:



ITEM	UNIT
B22.29 Tie bars for joining in situ concrete invert slabs to inlet and outlet structures, as indicated on the drawings (Type, diameter and length indicated)	Number (No.)
The unit of measurement shall be the number of tie bars installed as specified and indicated on the drawings.	
The Bided rate shall include full compensation for supply and installation of the tie bars.	

ITEM	UNIT
B22.30 a) Preparation and compaction of in-situ bedding material to 90% of Mod. AASHTO density(depth indicated)	cubic metre (m3)
b) Extra over sub-item B22.30(a) for compaction to 93% of Mod. AASHTO density (depth indicate)	cubic metre (m3)
The unit of measurement shall be the cubic metre of material ripped and compacted as specified.	
The Bided rate shall include full compensation for the ripping of the in-situ material to the specified width and depth, wetting of the material to such an extent that the specified density can be achieved.	

ITEM	UNIT
B22.31 Dewatering and keeping dry of culvert excavations	Number (No.)
The unit of measurement shall be the number of culverts constructed. The Bided rate shall be full compensation for dewatering and keeping dry of the culvert excavations until the backfill is completed.	
Payment shall be as follows:	
(i) 80% of the payment shall be made after the barrel of the culvert has been constructed and backfilled.	
(ii) Remaining 20% of the payment shall be made after the wing walls have been constructed and backfilled.	

ITEM	UNIT
B22.32 Cutting of concrete pipes	
a) Diameter indicated	Number (No.)
The unit of measurement shall be the number of pipes that have been cut. The Bided rate shall be full compensation for the cutting, by means of mechanical saw (angle grinder) and finishing off of the pipes for the specific angle of skew at which the pipes must be laid.	
Cutting of pipes shall only be paid for if the headwall of the wing walls are at such a skew angle in respect to the center line of the pipes that cutting is required and where non-standard lengths are required. The maximum skew angle at which pipes are allowed to be cut shall be 30 degrees and the minimum length of pipe, measured along the shortest side, shall be 1,5m.	
Classification of soft/hard materials as well as all quantities shall be agreed upon and finalised as the	



work progresses.”

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

**B2304 CONSTRUCTION**

**(e) Cast in-situ Kerbs and channels**

*ADD TO SUB-CLAUSE 2304(E) THE FOLLOWING :*

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

During the construction of the in situ channel, the **contractor** shall take care not to stain or damage the existing road surface. Any damage, **excess** over break, undermining or staining shall be repaired by the **Contractor** at his own expense.”

**(i) Construction sequence**

*REPLACE PARAGRAPHS (I), (II), AND (III) WITH THE FOLLOWING:*

“In all cases where kerbing, and/or channeling adjoin the asphalt or bituminous surface of road, the kerbing **and/or** channeling will be **constructed** prior to any asphalt or bituminous **surfacing** will take place. The contractor will only be **allowed** to prime the base prior to the start of the concrete works, no other seal work may commence before the completion of kerbing and/or channeling next to the road surface. **Before** commencing with the kerbing **and/or** channeling, the base must be accurately cut to line with a **mechanical** saw to a minimum depth of 75mm. After **excavation** the **concrete** shall then be casted or precast kerbs laid against the base. Any damage to the edge of the base shall be **repaired** prior to the **surfacing** of the base.

All material **outside** the cut line must be removed to the required thickness of **concrete** before **commencing** with the casting of the **concrete**. The bedding of the drain shall **thereafter** be **compacted** as described in sub clause 2304(a)(ii).

The **contractor** shall, **therefore** take note of areas where concrete drains etc. are to be **constructed** against the edge of **surfacing** in order not to lose significant areas of **surfacing** when saw cutting is **undertaken**.

No payment shall be made or repair work to the **satisfaction** of the engineer for **damage** caused by the **cutting/excavation process** of the bituminous **surface** and base layers.”

*ADD THE FOLLOWING NEW SUB-CLAUSES TO CLAUSE 2304 :*

**“(I) Shrinkage joints for cast in-situ concrete work.**

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

**(m) Formwork and finish**

All visible edges of cast in-situ channels edge beams, kerbs, etc. shall be rounded with a rounding tool.”

**SECTION 3100 : BORROW MATERIALS****B3102 NEGOTIATIONS WITH OWNERS AND AUTHORITIES**

*ADD TO SUB-CLAUSE 3102(A) THE FOLLOWING :*

"Arrangements with regard to access to borrow pits and alignment of haul roads shall be made between the contractor and the owners of the land on which the borrow pits are situated as well as the applicable local authorities. The engineer's representative on site shall be present at such negotiations. All costs involved with such negotiations as well as the requirements contained in clause 3102 and clause 1225 of the specifications shall be borne by the contractor except that provision is made herein for compensation to the landowner for land used for borrow areas."

**B3103 OBTAINING BORROW MATERIALS****(a) General**

*ADD TO SUB-CLAUSE 3103(A) THE FOLLOWING :*

"The Contractor shall note that natural materials which meet the requirements for the base and sub-base layers are limited, even when the properties are improved via stabilisation. Therefore, careful selection of materials will be required in the borrow pits. The Contractor shall refer to Section 3200 of the standard specifications with regard to his liabilities in respect of the contamination of good quality materials.

The expropriation and compensation for land from which borrow material is obtained shall be negotiated and paid for by the Contractor. A prime cost is allowed in the schedule of quantities for payment for royalties for land taken up by borrow pits. Cost incurred by the contract will only be disbursed if agreed to and approved by the Engineer."

**(c) Use of borrow materials**

*ADD TO SUB-CLAUSE 3103(C) THE FOLLOWING:*

"Compensation to owners and arrangements with owners for taking material from alternative borrow pits proposed by the contractor shall be the contractor's responsibility and entirely at his own expense."

**B3104 OPENING AND WORKING BORROW PITS AND HAUL ROADS****(a) Removing topsoil**

*ADD TO SUB-CLAUSE 3104(A) THE FOLLOWING:*

"The topsoil to be stockpiled shall be placed between the public road the physical borrow pit area so as to provide a temporary visual screen in front of the borrow activities. The topsoil shall not be stockpiled for longer than 6 months, nor shall the stockpile be higher than 2,5m."

**(g) Unproclaimed private access roads**

*ADD TO SUB-CLAUSE 3104(G) THE FOLLOWING:*

"The Contractor is responsible for proper maintenance of haul roads in cases where the material from the borrow pit areas has to be transported over secondary, tertiary, private or access roads. At the completion of activities in the borrow pits, the haul roads shall be restored to their original state and to the satisfaction of the Engineer.

Expropriation of borrow pits on private property by the Employer, will include access roads to the borrow pits. However, the Contractor is fully responsible for negotiating details of the right of access to the borrow pits with the private owners as well as for the building, maintenance and later removal of all access roads. No additional payment will be made for this work and full remuneration will be deemed to be included in the Bided rates for the various items where the material is to be used."

**B3108 MEASUREMENT AND PAYMENT**

*CHANGE ITEM 31.01 TO READ AS FOLLOWS:*

**ITEM**

**UNIT**

B31.01 Excess overburden :

- |   |                  |
|---|------------------|
| (a) Depth up to and including 0,5m      | cubic meter (m3) |
| (b) Depth exceeding 0,5m and up to 1,0m | cubic meter (m3) |

Measurement and payment shall be as specified for item 31.01 of the standard specifications with the abovementioned depth ranges applicable."

*ADD THE FOLLOWING NEW ITEMS:*

**ITEM**

**UNIT**

**"B31.04 Compensation to owners:**

- |  |                |
|--|----------------|
| a. Allow a Prime Cost Sum as compensation to owner/authority for royalties for land used as gravel borrow pits | P Sum          |
| b. Handling costs and profit in respect of sub item B31.04(a) above  | Percentage (%) |

Payment shall be made in accordance with the stipulations of the general conditions of contract."

**SECTION 3300 : MASS EARTHWORKS****B3301 SCOPE**

*ADD TO CLAUSE 3301 THE FOLLOWING :*

"The Contractor shall note the **restricted** nature of the **earthworks** in general, and where the widening of existing cuts and fills are required in particular. No extra over rates for widening of cuts, widening of fills or for working in **restricted** areas shall be applicable to this Contract."

**B3303 CLASSIFICATION OF CUT AND BORROW EXCAVATION****(a) Classes of excavation**

*REPLACE THE FIRST PARAGRAPH WITH THE FOLLOWING:*

"The excavation of materials from cut or **borrow** for fills including **excavation** in layer works of existing roads, shall be classified as follows for purposes of measurement and payment. No distinction will be made between the material from the existing road and other materials in the road reserve."

*ADD THE FOLLOWING :*

"Payment items 33.14 and 33.15 will not apply on this Contract."

**B3306 CUT AND BORROW****(a) Dimensions of Cuts**

Delete the third paragraph from Clause 3306(a), apart from the first sentence thereof.

*ADD THE FOLLOWING :*

"Cut and borrow to fill will be measured under Item 33.01. The Contractor shall take note of the nature of the **earthworks** alongside the existing road. No extra over payments will be made in respect of the nature of the site or due to the dimensions of a particular cutting."

**B3307 FILLS****(i) Widening of fills**

*IN THE EIGHT PARAGRAPH OF SUB-CLAUSE 3307(I), DELETE THE SENTENCE: "An extra over payment for the widening of existing fills will apply under Item 13.16."*

*ADD THE FOLLOWING :*

"No extra over payments will be made in respect of the nature of the site or due to the dimensions of the fills being widened or constructed."

**B3312 MEASUREMENT AND PAYMENT****General directions**

*DELETE NOTE: "(3) Work in restricted areas" AND REPLACE WITH THE FOLLOWING :*

"It may be necessary for the contractor to work in confined areas but no additional payment will be made for work done in "restricted areas". In certain area the width of the fill **material** and **pavement** layers may reduce to zero and the working space may be confined. The **method of construction** in these confined areas depends on the contractor's constructional plant. However, the contractor must note that measurement and payment will be in accordance with the **specified cross-sections and dimensions**, and that the rates and amounts Bided will be deemed to include full compensation for all **special equipment** or **construction methods** or for any difficulty **encountered** when working in confined areas and **narrow widths**, and at or around **obstructions**, and that no extra payment will be made nor will any claim for additional payment be **considered** on account of such difficulties."

*OMIT PAYMENT ITEMS 33.14 AND 33.15*



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

*DELETE THE FIRST SENTENCE OF THE SIXTH PARAGRAPH AND REPLACE WITH:*

"No distinction will be made for payment purposes between materials from the pavement layers of existing roads and other materials from the road reserve, or between cemented and non-cemented material from pavement layers of existing roads."

**B3406 QUALITY OF MATERIALS AND WORKMANSHIP**

*ADD TO CLAUSE 3406 THE FOLLOWING:*

"Test results and re-measurements shall be assessed in accordance with the provisions of Section 8300 : Quality Control (Scheme 2) of the standard specifications, as amended in these project specifications."

**B3407 MEASUREMENT AND PAYMENT**

*REPLACE THE FIRST PARAGRAPH WITH THE FOLLOWING:*

"It may be necessary for the contractor to work in confined areas but no additional payment will be made for work done in "restricted areas". In certain areas the width of the fill material and pavement layers may reduce the zero and the working space may be confined. The method of construction in these confined areas depends on the contractor's constructional plant. However, the contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions, and that the rates and amounts Bided will be deemed to include full compensation for all special equipment or construction methods or for any difficulty encountered when working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for additional payment be considered on account of such difficulties."

**ITEM****UNIT**

**B34.01 Pavement layers constructed from gravel taken from cut or borrow, including free-haul up to 1,0 km:**

(a) 150mm Gravel selected layer compacted to:

*ADD THE FOLLOWING SUB-ITEM:*

"(iii) 90% of modified AASHTO density (150mm thickness) Cubic metre (m<sup>3</sup>)"



**SECTION 3500 : STABILISATION****B3502 MATERIALS****(a) Chemical stabilizing agents**

*ADD TO SUB-CLAUSE 3502(A) THE FOLLOWING :*

"The new SABS ENV 197-1 standard specifications will be applicable to this Contract (Refer to Clause B1229 in the Project Specification). According to these specifications the following cements are prescribed:

- (ii) Ordinary Portland cement : CEM 1
- (iii) Portland blast-furnace cement : CEM III/A, III/B AND III/C
- (iv) *Ground granulated blast-furnace cement : As specified in 3502(a)(iv)*
- (v) Portland fly-ash cement : CEM II/A-V, CEM II/B-V, CEM II/A-W, CEM II/B-W"

**B3509 QUALITY OF MATERIALS AND WORKMANSHIP**

*ADD TO CLAUSE 3509 THE FOLLOWING :*

"Test results and re-measurements shall be assessed in accordance with the provisions of Section 8300 : Quality Control (Scheme 2) of the standard specifications, as amended in these project specifications.

The Contractor shall advise the Engineer at least 24 hours in advance of any stabilization work to enable him to organise and conduct his own control tests.

Where the stabilizing agent is to be spread by hand, the pockets of stabilizing agent shall be placed on the layer at regular intervals. However, spreading shall not be carried out before the engineer is satisfied that the correct quantity of stabilizing agent can be spread.

Stabilized layers shall be primed within 24 hours of construction. Stabilized layers shall be covered for curing within 7 days by means of seal or covered by sand. If the stabilized layer is found to have failed, the cover material shall be removed and the layer rectified if instructed by the engineer. No additional payment shall be made for such removal and remedial work."

**B3510 MEASUREMENT AND PAYMENT**

*DELETE THE NOTE AT THE START OF THE MEASUREMENT AND PAYMENT CLAUSE DEALING WITH WORK IN RESTRICTED AREAS AND REPLACE WITH:*

"On this contract, no extra over payment will be made due to the nature of the site or the size of the work area available. All costs associated with carrying out the works in restricted areas are deemed to be included in the Bided rates of the specific item in the bill of quantities."

**B35.02 Chemical stabilising agent:**

*ADD THE FOLLOWING NOTE TO THIS PAYMENT ITEM:*

"The notation used for Portland cement and Portland blast-furnace cement corresponds with the notation specified in SABS ENV 197-1."

**SECTION 4100 : PRIME COAT****B4102 MATERIALS****(a) Priming Material**

*ADD TO THE WORDS: "such as MSP 1 or similar." TO THE LAST OF THE LISTED PRIMING MATERIALS.*

**B4106 APPLICATION OF THE PRIME COAT**

*ADD THE FOLLOWING TO SUBCLAUSE (c):*

"The nominal rate of application of the prime for Bid purposes shall be  $0.75/m^2$ ."

**SECTION 4200: ASPHALT BASE AND SURFACING MIXTURES****B4204: COMPOSITION OF**

Add the following to the fifth paragraph:

The mix designs for continuously graded asphalt surfacing shall be executed to conform to the test requirements given in following Table B4203/1, which replaces the requirements for these mixes given in Table 4203/1 of the standard specifications.

Number of Marshall compaction blows on each side of briquette = 75."

TABLE B4203/1		
PROPERTY	CONTINUOUSLY GRADED ASPHALT SURFACING	
	MINIMUM	MAXIMUM
Stability (kN)	8,0	15,0
Flow (mm)	2,0	4,0
Stability/flow (kN/mm)	2,5	-
Voids (%)	3,0	6,0
Air permeability (cm <sup>3</sup> )	-	1 x 10 <sup>-8</sup>
Film thickness (µm)	5,0	-
Immersion index (%)	75	-
VMA (%)	15	-
Dynamic Creep Modulus (Mpa) at 40° C	15	-
Static Creep Modulus (Mpa) at 40° C	100	-
Indirect tensile strength at 25° C (kPa)	1 000	-
Filler/bitumen ratio	1,0	1,5

**SECTION 5600 : ROAD SIGNS****B5602 MATERIALS****(g) Retro-reflective material**

*IN THE FIRST SENTENCE, REPLACE "SABS 1519" WITH "SABS 1519-1" AND DELETE "and the adhesion requirements of CKS 191."*

*ADD THE FOLLOWING:*

*"When measured with a field retro-reflectometer in accordance with section B8118, the coefficient of retro-reflection of a retro-reflective material shall not be less than the appropriate value given in Table B8118/1."*

**(k) Black vinyl**

*IN THE SECOND SENTENCE REPLACE "SABS 1519" WITH "SABS 1519-1" AND DELETE THE REST OF THE SENTENCE.*

*ADD THE FOLLOWING SUBCLAUSE:*

**"(m) Temporary covers for road signs**

When required, existing road signs shall be fully or partially covered with burlap or other approved material to obscure destinations that are temporarily inapplicable or irrelevant.

The covers shall be neatly applied and firmly fixed in position on the rear side of the sign 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****(i) Steel plate road sign boards**

*ADD THE FOLLOWING AS THE FOURTH PARAGRAPH:*

*"Steel plate used to manufacture guidance signs shall be pre-punched by means of an automated process with 5 mm holes in a rectangular grid pattern not exceeding 150 mm c/c."*

**B5610 DANGER PLATES AT CULVERTS/STRUCTURES**

*ADD THE FOLLOWING:*

The unit of measurement shall be the number of danger plates provided and erected in accordance with the drawings.

<u>ITEM</u>	<u>UNIT</u>
B56.10 Danger plates at culverts/structures	
(a) Type A at stormwater culverts (size indicated)	number (No.)
(b) Type B at bridges (size indicated)	number (No.)

The Bided rate shall include full compensation for all labour and material, painting, posts, excavation, backfilling with soil etc., as may be necessary for completing the work in accordance with the details shown on the drawings."

**SECTION 5700: ROAD MARKINGS****B5702 MATERIALS**

- (a) **Paint**
- (ii) **Retro-reflective road-marking paint**

*ADD TO SUB-CLAUSE 5702(A)(II) THE FOLLOWING :*

"During actual painting the Contractor shall supply **sealed** samples of the paint to be used to the Engineer together with details of the paint batch numbers and **testing** carried out on these particular **batches** by the paint manufacturer to prove compliance with this specification. These samples shall be kept until the end of the defects liability period."

**B5704 MECHANICAL EQUIPMENT FOR PAINTING**

*ADD TO CLAUSE 5704 THE FOLLOWING :*

"The machine shall **always operate** in the direction of the traffic when applying lane **markings**."

**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 tested in **accordance** with Section B8119, the Contractor shall repaint the works at his own cost."



**SECTION 6400 : CONCRETE FOR STRUCTURES****B.6402 MATERIALS****(a) Cement**

Replace this sub-section with the following:

"Refer to section 1142 for specification of cement."

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members.

**B.6404 CONCRETE QUALITY****(b) Strength concrete**

Add the following paragraph:

"The cement content for any class of structural concrete or mass concrete used in structures shall not be less than 300kg/m<sup>3</sup> of concrete.

The contractor must provide the engineer with complete mix designs and materials for strength concrete at least six (6) weeks before the first concrete is cast on the project".

**B.6405 MEASURING THE MATERIALS****(c) Aggregates**

Add the following:

"All concrete for structures shall be manufactured by mechanical mass batching unless authorised otherwise by the engineer for minor concrete structures or for labor-intensive methods."

**B.6407 PLACING AND COMPACTING****(a) General**

Add the following after the third paragraph:

"Concrete shall only be placed up to 20h00 at the latest. Under exceptional circumstances the Engineer may allow night work on condition that proper lighting arrangements can be made and a new and rested shift for night work is provided and ambient temperatures are such as to not adversely affect the setting of the concrete."

**B.6408 CONSTRUCTION JOINTS****(a) General**

Add the following:

"No construction joints other than those indicated on the drawings will be permitted without the written approval of the engineer".

**B.6409 CURING AND PROTECTING**

Add the following:

"The surface area of bridge and culvert floor slabs and decks shall be cured as follows:

- (i) The area of freshly cast and finished concrete surface shall be immediately covered as specified in clause 6409(e).
- (ii) After the concrete has set sufficiently the entire area shall be treated with an approved curing

compound as specified in clause 6409(f)."

#### **B.6414 QUALITY OF MATERIALS AND WORKMANSHIP**

##### **(a) Criteria for compliance with the requirements**

Add the following:

"Quality control shall be carried out by the engineer as specified in Section 8200 : Quality Control (Scheme 1)."

Add the following new paragraph:

##### **“(d) Concrete cores - strength requirements**

Cores will only be drilled if authorised by the engineer. This will only be considered if the contractor's own cubes, when crushed by the engineer, attained the required 28-day cube strength."

#### **B.6416 MEASUREMENT AND PAYMENT**

<u>ITEM</u>	<u>UNIT</u>
B64.01 Cast in situ concrete:	cubic metre (m <sup>3</sup> )

Add the following after the first paragraph:

"Where foundation slabs are set directly against the face of excavations, the volume of concrete measured for payment shall include the total volumes of concrete placed, allowing for up to a maximum over the neat footing dimensions of 200mm where in the opinion of the engineer accurate excavation to neat lines and levels indicated on the drawings is not possible. (No formwork to the footing shall be measured when the concrete is cast against the face of the excavations)."

**SECTION 8100: TESTING MATERIALS AND WORKMANSHIP****B8111 TESTS ON PAVEMENTS****B8111 (b) Straight-Edge Test for Surface Irregularities on Surfaces with a Coarse Surface Texture**

ADD TO SUB-CLAUSE 8111(B) THE FOLLOWING:

"The Contractor shall perform surface irregularity tests on base course by means of a 3,0 m straight-edge with the necessary wedge as described in Clause 8111 (b), and shall have the straight-edge and wedge on site throughout the production of the base course for the use of himself during process control testing and for the use of the Engineer during acceptance control testing.

No separate payment shall apply for having the straight edge and wedge on site."

ADD THE FOLLOWING NEW 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 B 8118/1 below. The coefficients of retro-reflection are expressed in candelas per lux per square meter (cd/(lux/m²)).

**TABLE B 8118/1 COEFFICIENTS 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/m²)) 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 TESTING OF APPLIED ROAD MARKINGS**

Road markings will be checked for compliance with the specifications utilising appropriate equipment and in accordance with the following standard:

Night-time retro-reflectivity: SABS 1261: *Determination of retro-reflected luminance by means of a portable retro-reflectometer*. (Measurement to SABS 1261 shall be made in accordance with the 30 m measurement geometry).

**(a) Sampling procedure for testing of road markings**

Acceptance testing shall be done per uniform section of road and will be based on a sample not exceeding 5% of the works for retro-reflective measurements.

The procedure shall be as follows:

- (i) Per uniform section, test locations shall be identified randomly. Each randomly selected position shall be 200m in length. At each test location the 200m section shall be marked out into four 50m long sections. One 5m length shall be selected within each 50m section and measurements shall be made on such a length. (One 200m section length shall therefore be considered as a 5% sample for a road section of 4km in length)

- (ii) The following number of tests for retro-reflectivity will be done per 200m section. (Depending on roadway cross-section).

Line location	No of tests	Sample %
Left edge line (yellow)	2	2,5%
Lane lines (white)	2	2,5%
No overtaking line (white)	4	5%
Dividing line (white)	4	5%

The following line types will be tested individually, subject to the indicated sampling rate :

Line location	Sample %
Stop lines or yield lines	20% in total
Painted islands	2,5% of square metre

Each reported retro-reflection test will comprise the **average** of three (3) readings."

**ADD THE FOLLOWING NEW ITEMS:**

#### **B81.04 MEASUREMENT AND PAYMENT**

**ADD THE FOLLOWING NEW SUB-ITEM:**

<u>ITEM</u>	<u>UNIT</u>
<b>B81.04 Provisional sums to provide for the on-site Laboratory:</b>	
(a) Provisional sum to provide personnel for the site laboratory	P Sum
(b) Provisional sum to provide for a rented vehicle for transport for the site laboratory	P Sum
(c) Provisional sum to provide for equipment rental for the site laboratory	P Sum
(d) Handling costs and profit in respect of sub-item B81.04 (a) and (b)	Percentage (%)

The prime cost sum shall be expended in **accordance** with the **provisions** of the general conditions of contract. **Payment** to the Engineers site **Laboratory** shall be made within fourteen (14) days after such order has been given by the engineer. The contractor shall provide detailed proof of **payment** before **payment** shall be **certified** to the contractor.

The Bided **percentage** in item B81.04(d) is an extra over **percentage** on the amount actually spent under sub-item B81.04(a, b, c) which shall include full compensation for the handling costs and profit of the contractor."

**Measurement and payment** in respect of the **provisional sum** item shall be made in accordance with the **provisions** of the general conditions of contract."

**SECTION 8300 : QUALITY CONTROL (SCHEME 2)****B8301 SCOPE**

*ADD THE FOLLOWING TO CLAUSE 8301 OF THE SPECIFICATIONS:*

“Quality control shall be carried out in accordance with the requirements of **Section 8300: Quality Control (Scheme 2).**”

**B8309 PROCESS CONTROL BY THE CONTRACTOR**

*ADD TO CLAUSE 8309 THE FOLLOWING :*

“For the purpose of this Contract **process** or **quality control** by the Contractor comprises at least the following:

**Soil Tests:**

Field densities, maximum dry density and optimum moisture **content** determinations, CBR, UCS, indicator tests (grading and PI), moisture contents, solid densities and chemical tests relating to stabilizing agent contents;

**Aggregate tests:**

Grading, flakiness index, **average** least dimension (ALD);

**Concrete tests:**

Concrete mix designs, slump and cube crushing strengths.”



## **GENERIC LABOUR-INTENSIVE SPECIFICATION**

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works **contracts**- Part 5: Earthworks activities which are to be **performed** by hand and should be included in the scope of works without amendment or **modification** as set out below.

### **SCOPE**

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- a) trenches having a depth of less than 1.5 metres
- b) storm water drainage
- c) low-volume roads and sidewalks

### **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.

### **HAND EXCAVATEABLE MATERIAL**

Hand excavatable material is material:

a) Granular **materials**:

- i) whose consistency when **profiled** may in terms of table 1 be **classified** as very loose, loose, medium dense, or dense; or
- ii) where the **material** is a gravel having a maximum particle size of 10mm and contains no cobbles or **isolated** boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) Cohesive materials:

- i) whose consistency when profiled may in terms of table 1 be **classified** as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no **cobbles** or isolated boulders, no more than 8 blows of a dynamic cone **penetrometer** is required to penetrate 100mm;

### **Note:**

- 1) A boulder, a cobble and gravel is **material** with a **particle** size greater than 200mm, between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to **measure** the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum **diameter** of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

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 upto 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 thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

**Trench excavation**

All hand excavateable 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 100mm. Each layer shall be compacted using hand stampers

- 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 excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

### 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.

<b>SECTION EMP</b>	<b>ENVIRONMENTAL MANAGEMENT SPECIFICATION</b>
<b>SECTION DWK</b>	<b>DAY WORKS</b>
<b>SECTION OHS</b>	<b>OHSA 1993 SAFETY SPECIFICATION</b>

**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:
  - i. Minimize **disturbance** of the natural environment,
  - ii. Prevent pollution of land, air and water,
  - iii. Prevent soil **erosion** and facilitate re-vegetation.
- Adopt the best **practicable** means available to prevent or 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.

**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**.

**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.

**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.

#### **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.

## 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.

### 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.



**SECTION OHS : OSHA 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 OSHA 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 OSHA 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.

**OHS.2 DEFINITIONS**

For the purpose of this contract the following shall apply:

- (a) **Employer** where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as **client** as defined in the Construction Regulations 2014. **Employer** and **client** is therefore interchangeable and shall be read in the context of the relevant document.
- (b) **Contractor** wherever used in the contract documents and in this specification, shall have the same meaning as **Contractor** as defined in the General Conditions of Contract.

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 OSHA 1993, be the



mandatory, without derogating from his status as an employer in his own right.

- (c) “**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) 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;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the **Construction Regulations 2014**;
- (c) 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**.
- (d) 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**.

### 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:

- (a) the demolition of structures and dismantling of fixed plant of height of 3,0m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (e) excavation work deeper than 1,0m; or
- (f) 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.

# 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.

### 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.

- (a) Risk **assessment** and induction training as described in Regulation 9 of the Construction Regulations;
- (b) Fall **protection** as described in Regulation 10;
- (c) Excavation work as **described** in Regulation 13;
- (d) Demolition work as described in Regulation 14;
- (e) **Scaffolding** work as described in Regulation 16;
- (f) Suspended platform **operations** as described in Regulation 17;
- (g) Material hoists as described in Regulation 19;
- (h) Bulk Mixing plant operations as **described** in Regulation 20;
- (i) Explosive actuated fastening **device** as **described** in Regulation 21;
- (j) Cranes as described in Regulation 22;
- (k) Construction vehicle and mobile plant **inspections** on a daily basis by a competent person as **described** in Regulation 23(1);
- (l) Control of all temporary **electrical** installation on the construction site as **described** in Regulation 24;
- (m) Stacking and storage on construction sites as described in Regulation 28; and
- (n) 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) A copy of the OHSA 1993 **Construction** Regulations 2014;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 7);
- (d) A copy of the Notification of Construction Work (Regulation 4);
- (e) A health and safety file in terms of Regulation 7(1b) with inputs by the Construction Safety Officer (Regulation 8(5));
- (f) A copy of the risk assessment described in Regulation 9;
- (g) A full protection plan and the **corresponding** records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- (h) **Drawings** pertaining to the design of structures (Regulation 11(1c)) and temporary works (Regulation 10) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13(2)(h));
- (j) A copy of the **certificate** of the system design for suspended **platforms** (Regulation 17(3));



- (k) 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));
- (l) Maintenance records of **material** hoists and **inspection** results must be kept in a record book to be kept on site (Regulation 19(8));
- (m) A **record** of any repairs to or maintenance of a batch plant must be kept on site (Regulations 19(8));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an **explosive powered** tool is used (Regulation 21(2));
- (o) 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 (OHS Act 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 (OHS Act 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.

### (a) 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.

### (b) 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.

### (c) 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.

### (d) 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 sub**contractor**, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as **specified** in Regulation 9.

(e) **Fall protection** (Regulation 10)

Fall **protection**, if **applicable** to this contract shall comply in all **respects** with Regulation 10 of the Construction Regulations.

(f) **Structures** (Regulation 11)

The **Contractor** will be liable for all claims arising from **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**.

(g) **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.

(h) **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.

(i) **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.

(j) **Tunneling** (Regulation 15)

The **Contractor** shall comply with Regulation 15 wherever tunneling of any kind is involved.

(k) **Scaffolding** (Regulation 16)

The **Contractor** shall ensure that all the provisions of Regulation 16 of the **Construction Regulations** are complied with. [Note: **Reference** in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"].

(l) **Suspended platforms** (Regulation 17)

Wherever suspended **platforms** will be **necessary** on any contract, the **Contractor** shall



ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 17 of the Construction Regulations.

(m) Rope Access (Regulation 18)

Where rope access are required on the construction site, the Contractor shall comply with Regulation 18.

(n) Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 19 to the letter.

(o) Bulk Mixing plants (Regulation 20)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 20. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive 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.

(q) Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

(r) Construction vehicles And mobile plant (Regulation 23)

The Contractor shall ensure that all construction vehicles and plant are in good working 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.

(s) Electrical installation and machinery on construction sites (Regulation 24)

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all

workers and persons on site in terms of Regulation 24.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 25)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 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.

(u) Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(v) Housekeeping 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.

(w) Stacking and storage on construction sites (Regulation 28)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions Regulation 28 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (Regulation 29)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 29 of the Construction Regulations.

(y) Construction 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.

(z) Non-compliance with the Construction Regulations 2014

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 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 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.***

## 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.

**(a) 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.

**(b) 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.

C4: SITE INFORMATION

- C4.1 LOCALITY PLAN
- C4.2 TENDER DRAWINGS



## C4.1 LOCALITY PLAN





**C4.2 TENDER DRAWINGS**

# MAKHADO MUNICIPALITY

PROJECT NO. 70 of 2022

MAKATU TO TSHIKOTA ACCESS ROAD

TENDER DRAWINGS

**CLIENT :**

**MAKHADO MUNICIPALITY**



Private Bag X 2596  
LOUIS TRCHARDT  
0920

TEL (015) 519 3000  
FAX (015) 516 6145

**PREPARED BY :**

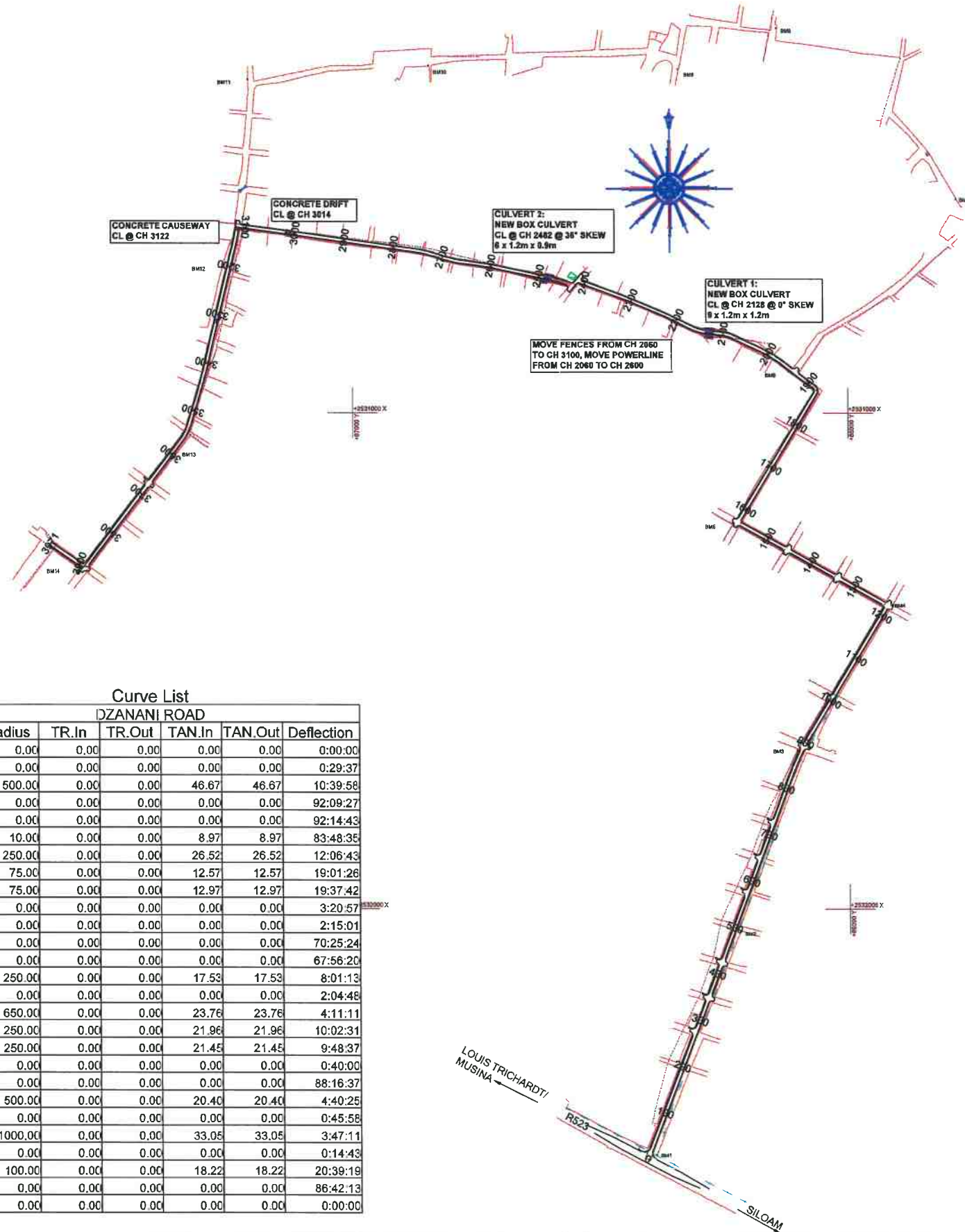


**DANE PROJECTS (PTY) LTD**  
32 King Edward Drive  
Building B, Medipark  
Tzaneen, 0850

Tel/Fax: (015) 307 4098  
E-mail: [admin@daneprojets.co.za](mailto:admin@daneprojets.co.za)

**NAME OF TENDERER .....**

TSHIKOTA TO MAKATU BENCHMARKS WGS31			
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BM1	86392.671	2532496.660	777.283
BM2	86221.313	2532044.234	789.860
BM3	86104.790	2531679.990	802.839
BM4	85909.367	2531387.209	817.865
BM5	86232.683	2531222.984	821.641
BM6	86119.097	2530916.732	837.783
BM7	85779.305	2530570.755	853.469
BM8	86141.173	2530228.187	862.752
BM9	86340.203	2530311.201	856.405
BM10	86644.789	2530303.394	841.754
BM11	87269.640	2530332.323	837.859
BM12	87262.771	2530709.561	814.937
BM13	87328.651	2531046.149	803.848
BM14	87556.446	2531317.458	785.402



Curve List

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5	10.00	0.00	0.00	8.97	8.97	83:48:35
6	250.00	0.00	0.00	26.52	26.52	12:06:43
7	75.00	0.00	0.00	12.57	12.57	19:01:26
8	75.00	0.00	0.00	12.97	12.97	19:37:42
9	0.00	0.00	0.00	0.00	0.00	3:20:57
10	0.00	0.00	0.00	0.00	0.00	2:15:01
11	0.00	0.00	0.00	0.00	0.00	70:25:24
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13	250.00	0.00	0.00	17.53	17.53	8:01:13
14	0.00	0.00	0.00	0.00	0.00	2:04:48
15	650.00	0.00	0.00	23.76	23.76	4:11:11
16	250.00	0.00	0.00	21.96	21.96	10:02:31
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18	0.00	0.00	0.00	0.00	0.00	0:40:00
19	0.00	0.00	0.00	0.00	0.00	88:16:37
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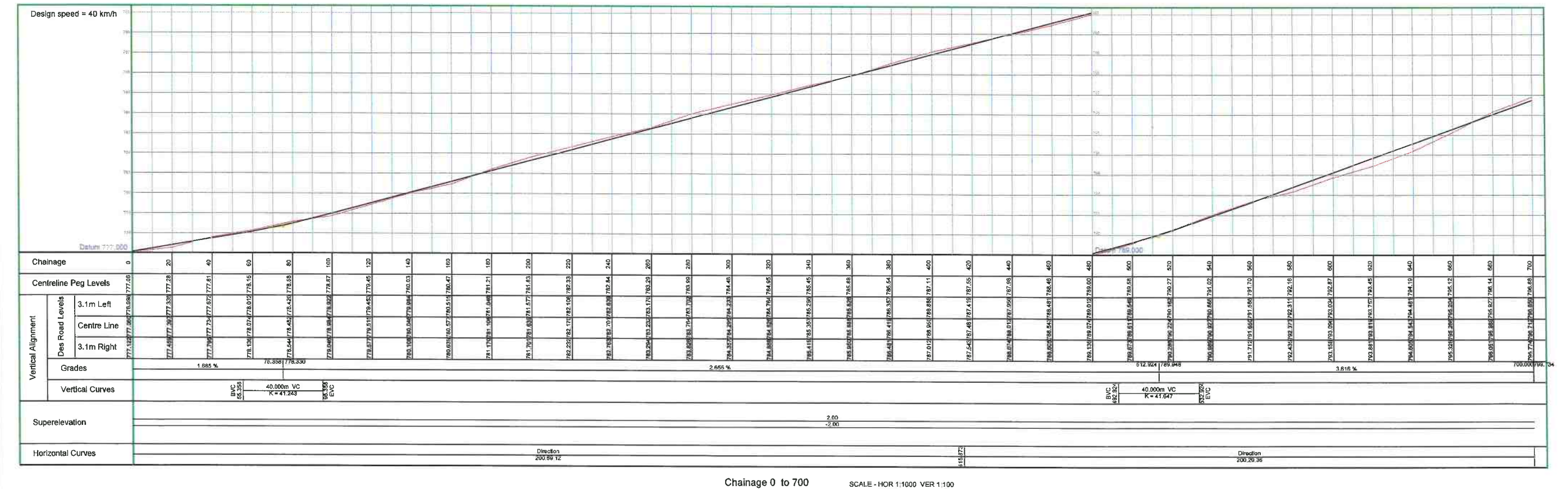
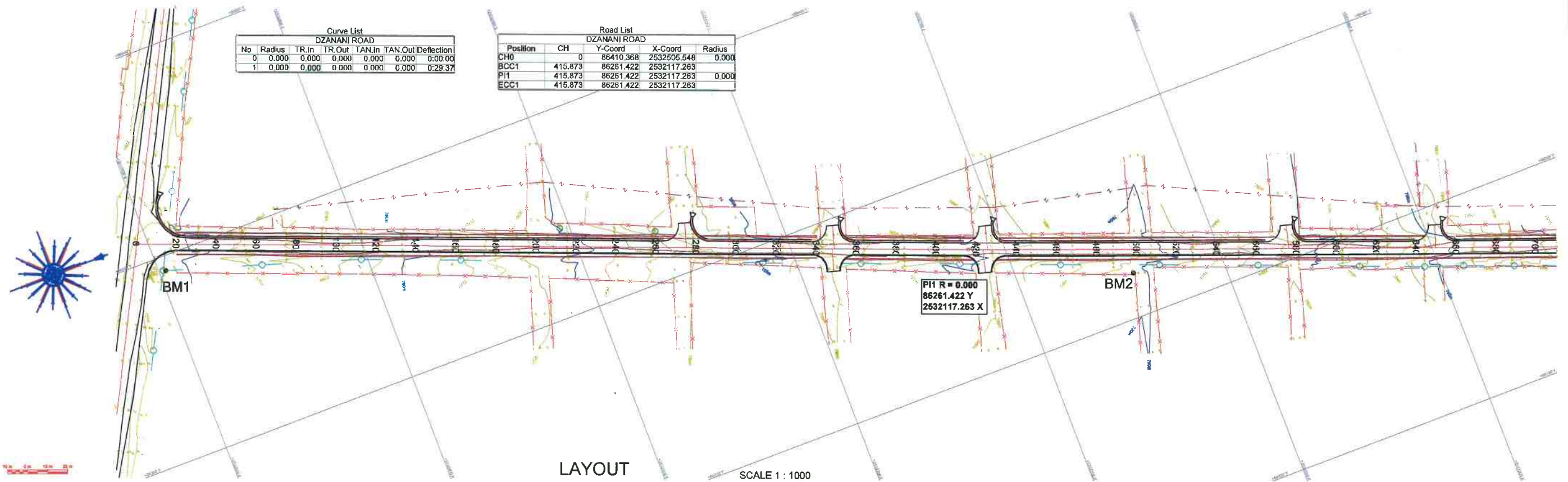
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PI1	415.873	86261.422	2532117.263
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PI2	877.956	86099.601	2531684.297
ECC2	924.496	86075.450	2531644.356
BCC3	1223.658	85920.658	2531388.354
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ECC3	1223.658	85920.658	2531388.354
BCC4	1568.844	86222.559	2531220.994
PI4	1568.844	86222.559	2531220.994
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PI5	1879.207	86060.702	2530954.234
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BCC6	1963.259	86128.759	2530902.130
PI6	1989.683	86149.819	2530886.006
ECC6	2016.107	86173.792	2530874.661
BCC7	2078.396	86230.095	2530848.016
PI7	2090.847	86241.454	2530842.640
ECC7	2103.298	86253.945	2530841.261
BCC8	2137.366	86287.807	2530837.522
PI8	2150.213	86300.702	2530836.097
ECC8	2163.059	86312.370	2530830.424
BCC9	2221.929	86365.313	2530804.682
PI9	2221.929	86365.313	2530804.682
ECC9	2221.929	86365.313	2530804.682
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BCC11	2414.440	86544.555	2530734.549
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ECC11	2414.440	86544.555	2530734.549
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PI12	2426.887	86552.541	2530744.096
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BCC13	2449.131	86573.714	2530737.279
PI13	2466.628	86590.397	2530731.908
ECC13	2484.126	86607.666	2530728.917
BCC14	2497.263	86620.610	2530726.675
PI14	2497.263	86620.610	2530726.675
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PI15	2601.556	86722.670	2530705.157
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PI16	2679.090	86799.567	2530694.733
ECC16	2700.998	86820.485	2530688.033
BCC17	2713.106	86832.018	2530684.339
PI17	2734.511	86852.450	2530677.794
ECC17	2755.913	86873.699	2530674.826
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PI18	3011.238	87126.569	2530639.507
ECC18	3011.238	87126.569	2530639.507
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PI19	3116.926	87231.404	2530626.106
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BCC20	3126.291	87232.870	2530635.356
PI20	3146.684	87236.065	2530655.508
ECC20	3167.076	87240.891	2530675.333
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PI24	3546.456	87336.331	2531042.594
ECC24	3564.481	87347.450	2531057.032
BCC25	3887.211	87544.371	2531312.721
PI25	3887.211	87544.371	2531312.721
ECC25	3887.211	87544.371	2531312.721
END	3971.399	87613.914	2531285.272

DESIGNED BY A BOTHA		 <p>Makhado Municipality Private Bag X 2696 LOUIS TRICHARDT 0920</p> <p>TEL (015) 519 3000 FAX (015) 516 6145</p>	 <p>DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850</p> <p>Tel/Fax: (015) 307 4088 E-mail: admin@daneprojects.co.za</p>	PROJECT NO. 70 of 2022		<p>CONSULTANT DANE/2019-01/01</p>	<p>SHEET 1 OF 1</p> <p>SCALE 1 : 5 000</p>	
CHECKED BY M F USHI				MAKATU TO TSHIKOTA ACCESS ROAD				
DRAWN BY Z MAHLANGU				LAYOUT				
CHECKED BY M F USHI								
No	DATE	REVISION	CONSULT	DIR				



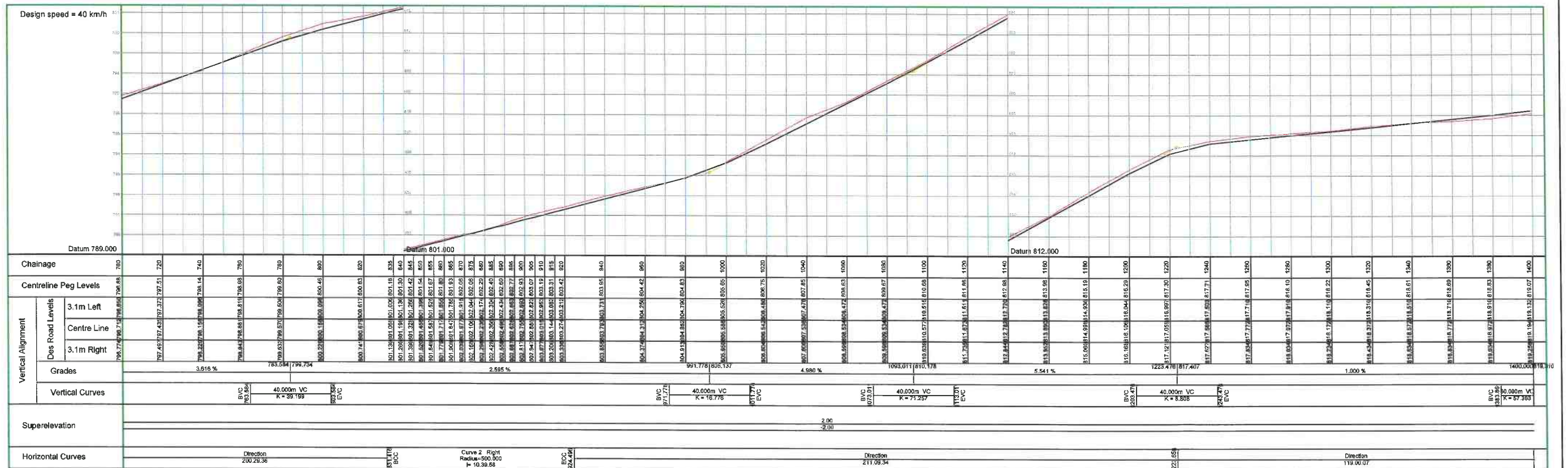
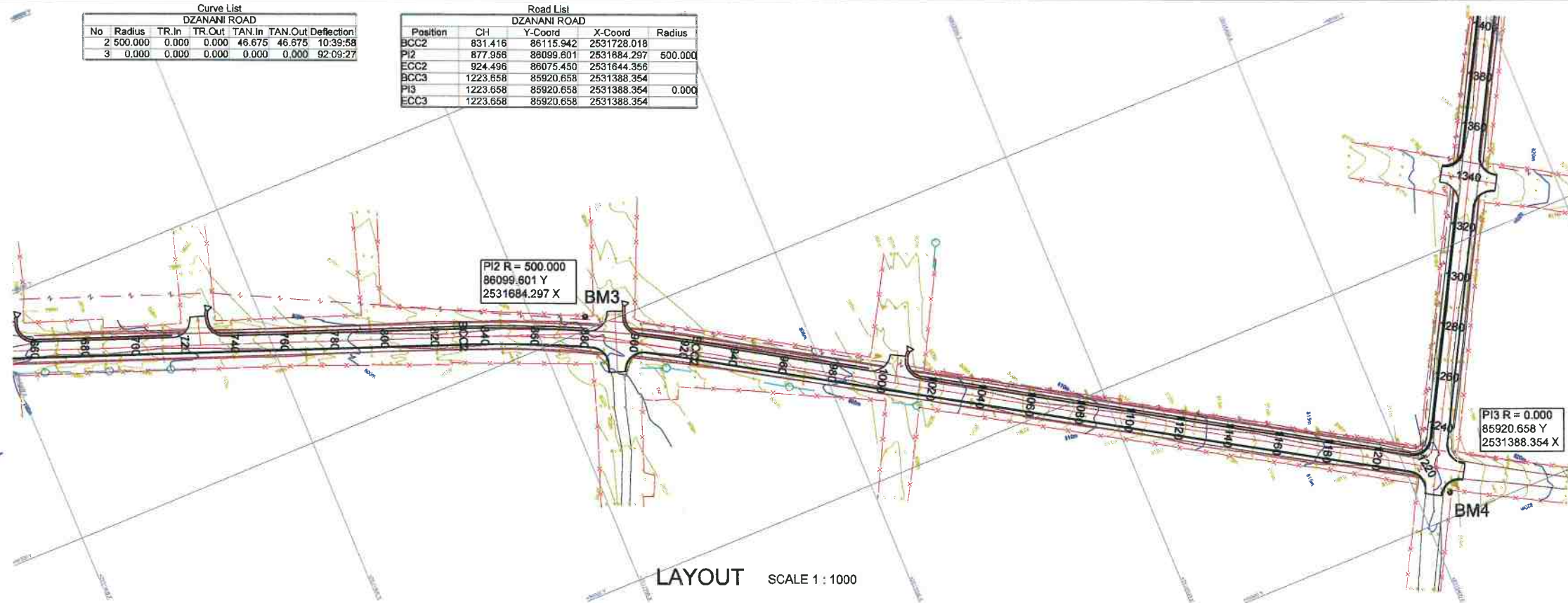


						DESIGNED BY	A BOTHA	 <p>Makhado Municipality Private Bag X 2596 LOUIS TRICHARDT 0920</p> <p>TEL (016) 619 3000 FAX (016) 619 6148</p>	 <p>DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850</p> <p>Tel/Fax: (016) 307 4098 E-mail: admin@daneprojects.co.za</p>	CONSULTANT:  <p>DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850</p>	PROJECT NO. 70 of 2022		 <p>Sheet: 1 of 1</p> <p>SCALE: HOR 1 : 1 000 VER 1 : 100</p> <p>CONSULTANTS: DANE/2019-01/02</p>	<p>70/2022/02</p>
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					DRAWN BY	Z MAHLANGU	LAYOUT & LONGITUDINAL SECTION: CH 0 TO CH 700							
No	DATE	REVISION	CONSULT	DIR	CHECKED BY	A BOTHA								



Curve List						
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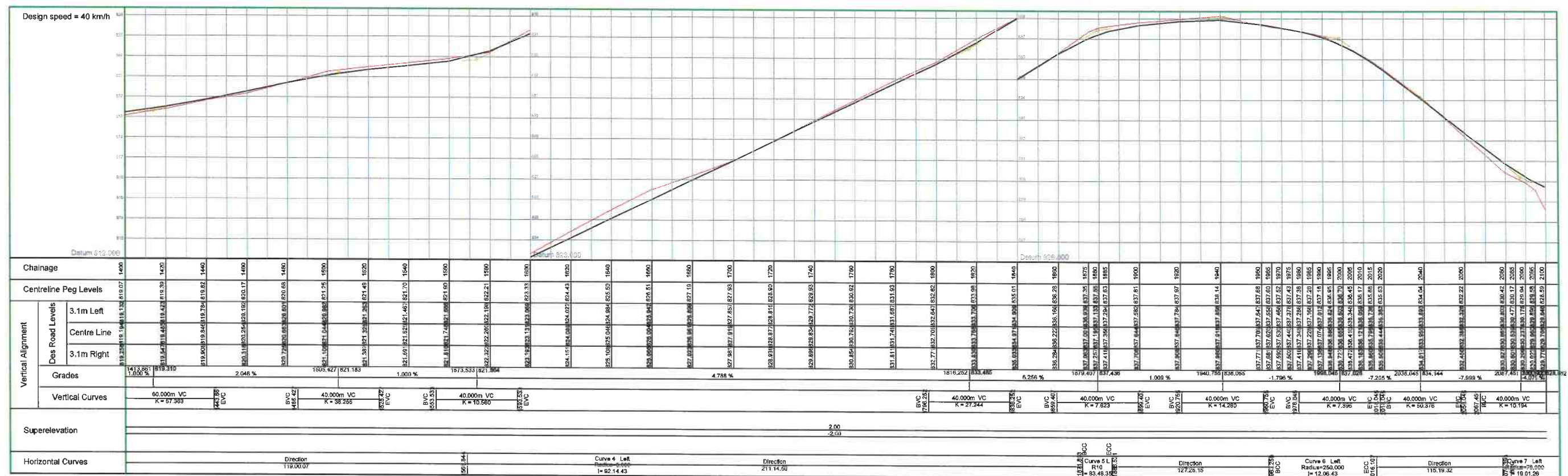
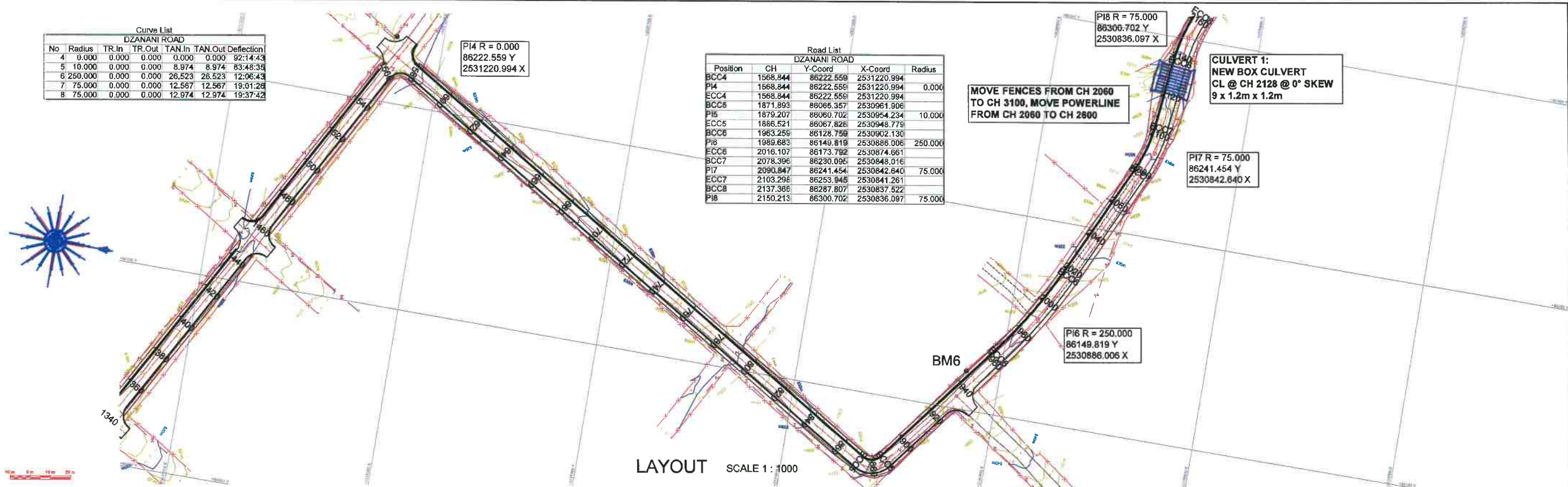
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ECC2	924.496	86075.450	2531644.356	
BCC3	1223.658	85920.658	2531388.354	
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ECC3	1223.658	85920.658	2531388.354	



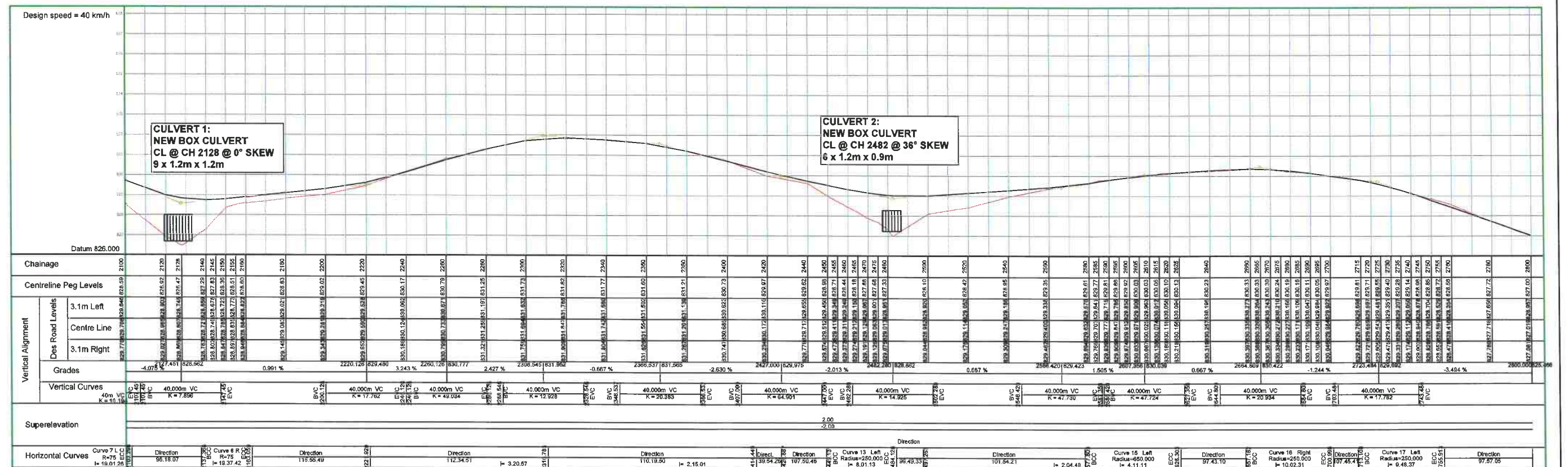
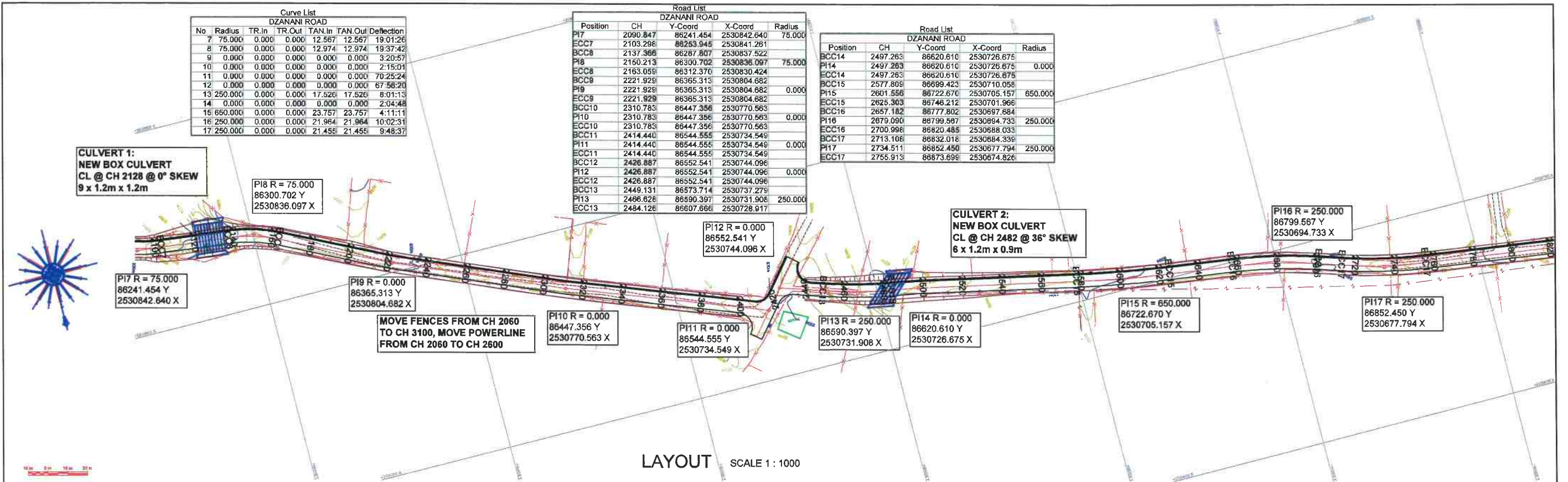
Chainage 700 to 1400 SCALE - HOR 1:1000 VER 1:100

				DESIGNED BY		A BOTHA		<div><div></div><div><div>CLIENT</div><div>Makhado Municipality Private Bag X 2586 LOUIS TRICHARDT 0920</div><div>TEL (016) 616 3000 FAX (016) 616 6148</div></div></div> <div><div></div><div><div>CONSULTANT</div><div>DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850</div><div>Tel/Fax: (016) 307 4088 E-mail: <a href="mailto:admin@daneprojects.co.za">admin@daneprojects.co.za</a></div></div></div>				PROJECT NO. 70 of 2022				<div><div>Project No.</div><div>70 of 2022</div></div>		SHEET 1 of 1	
				CHECKED BY		O ZIVANA						MAKATU TO TSHIKOTA ACCESS ROAD				<div><div>Project Name</div><div>MAKATU TO TSHIKOTA ACCESS ROAD</div></div>		SCALE HOR 1 : 1 000 VER 1 : 100	
				DRAWN BY		Z MAHLANGU										<div><div>Drawn by</div><div>Zivana O.</div></div>			
												LAYOUT & LONGITUDINAL SECTION: CH 700 TO CH 1400		DANE/2019-01/03 70/2022/03					



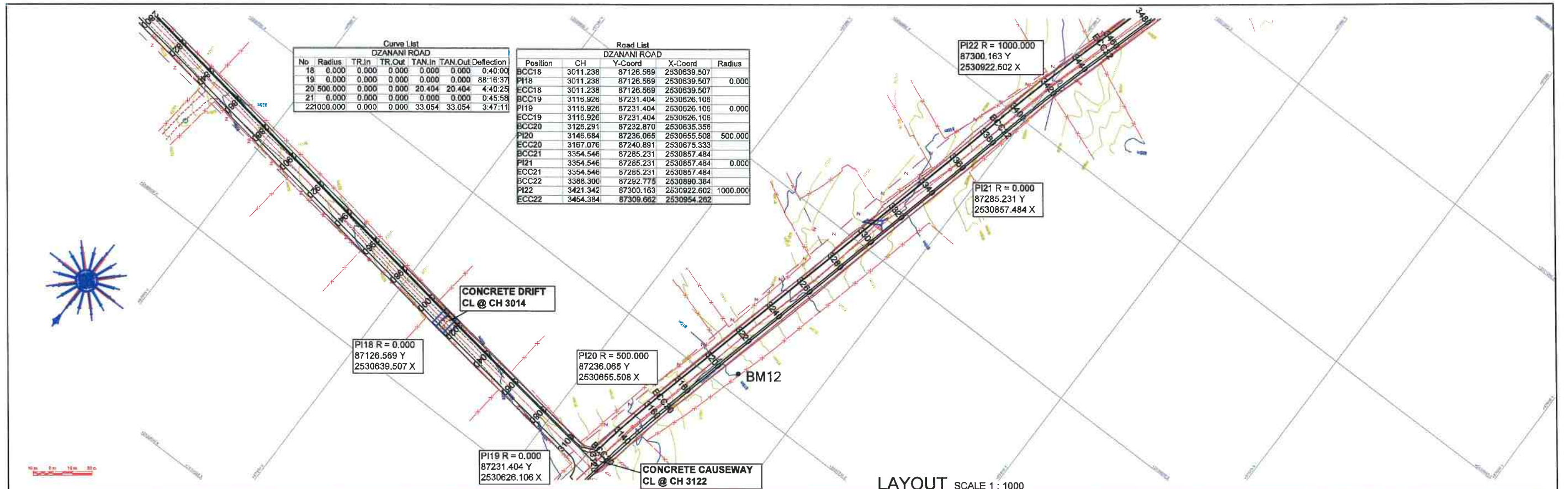




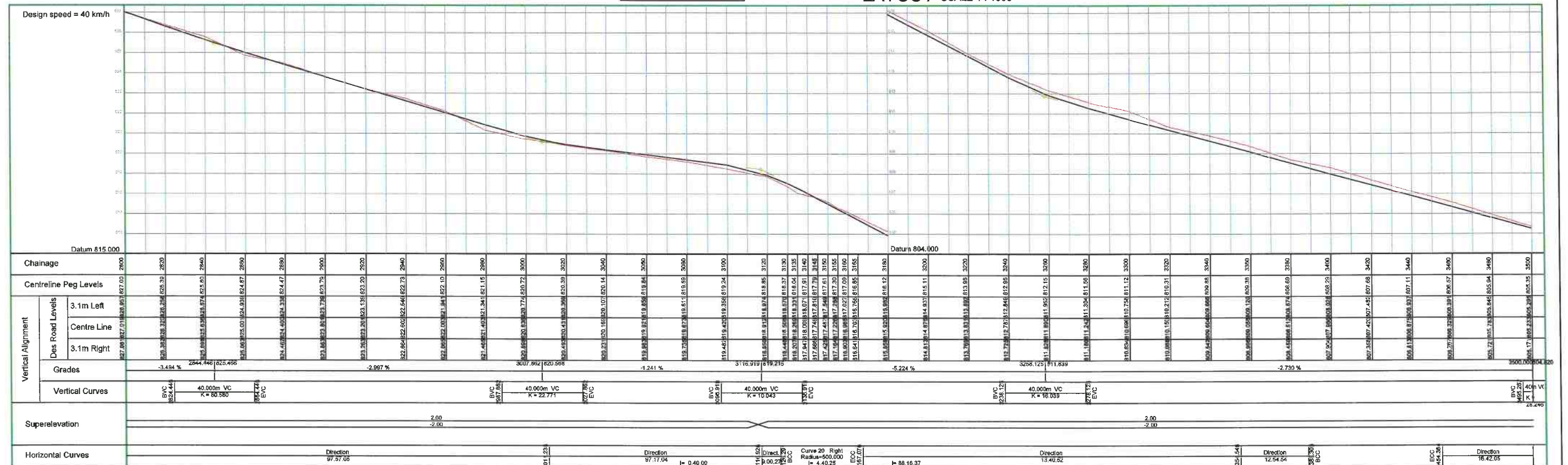


DESIGNED BY: A BOTHA				CLIENT: Makhado Municipality				PROJECT NO. 70 of 2022			
CHECKED BY: O ZYANI				Private Bag X 2596				MAKATU TO TSHIKOTA ACCESS ROAD			
DRAWN BY: Z MAHLANGU				LOUIS TRICHARDT				LAYOUT & LONGITUDINAL SECTION:			
CHECKED BY: A BOTHA				TEL (016) 619 3000				CH 2105 TO CH 2800			
				FAX (016) 619 6146				DANE/2019-01/05			
								70/2022/05			





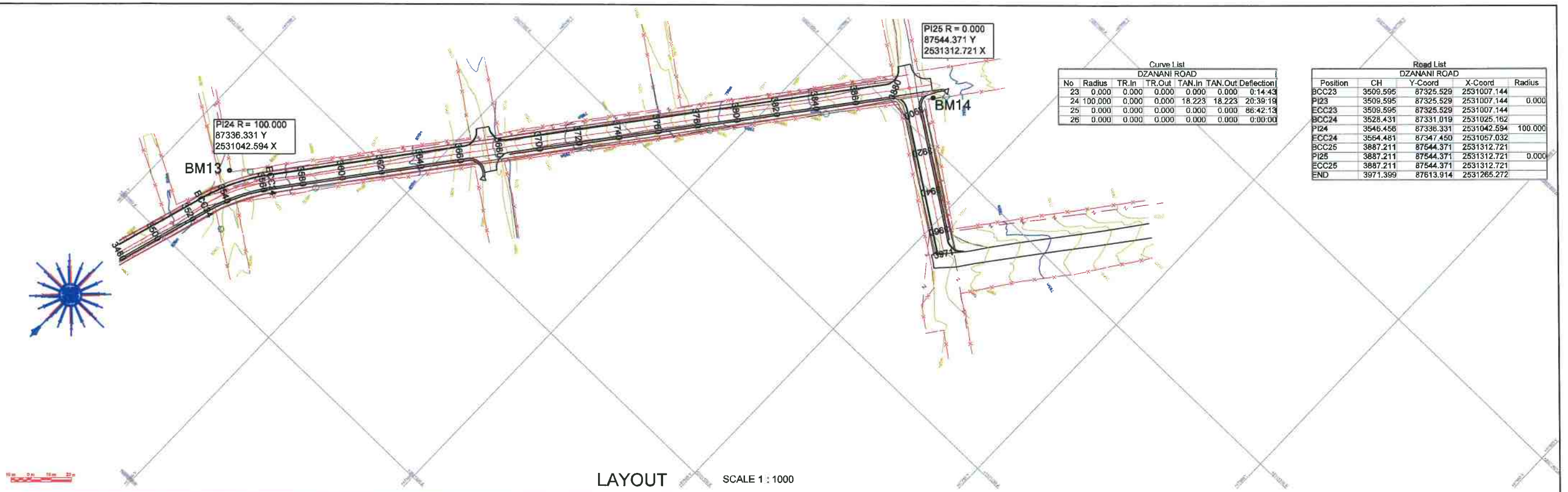
LAYOUT SCALE 1 : 1000



Chainage 2800 to 3500 SCALE - HOR 1:1000 VER 1:100

DESIGNED BY: A BOTHA CHECKED BY: O ZANANI DRAWN BY: Z MAHLANGU CHECKED BY: A BOTHA				CLIENT: Makhado Municipality Private Bag X 2596 Louis Trichardt 0920 TEL (016) 619 3000 FAX (016) 616 6148		Consultant: DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0950 Tel/Fax: (016) 307 4098 E-mail: admin@daneprojects.co.za		PROJECT NO. 70 of 2022 <b>MAKATU TO TSHIKOTA ACCESS ROAD</b> LAYOUT & LONGITUDINAL SECTION: CH 2800 TO CH 3500		SHEET 1 of 1 SCALE: HOR 1:1000 VER 1:100 CONSULTANT'S DRAWING NUMBER: DANE/2019-01/06 DATE: 70/2022/06	
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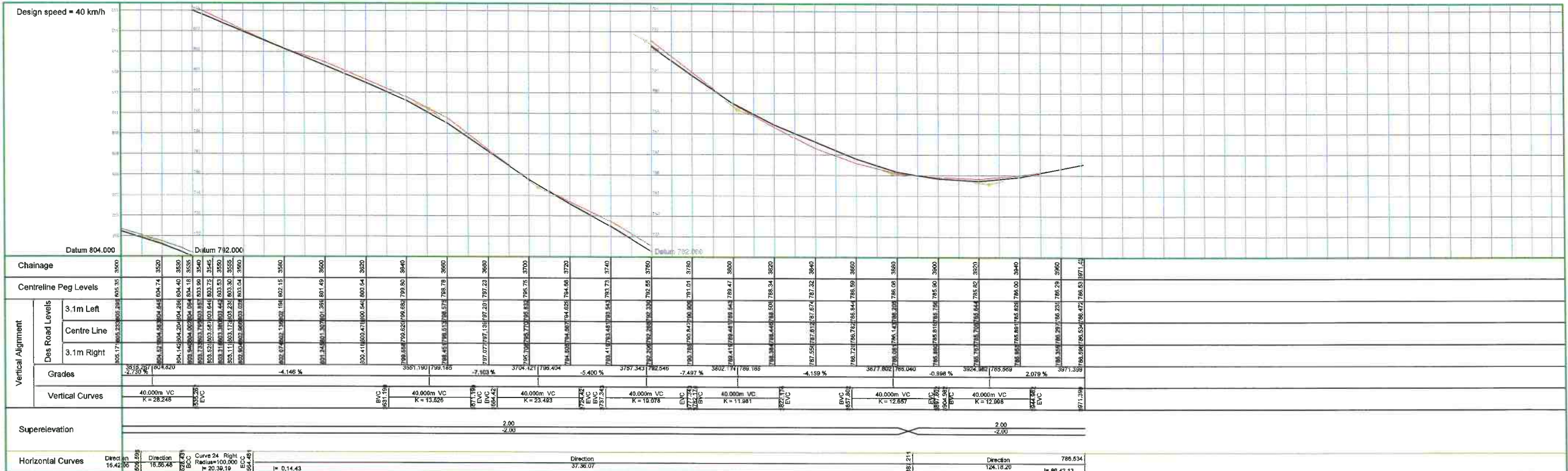




Curve List						
DZANANI ROAD						
No	Radius	TR.In	TR.Out	TAN.In	TAN.Out	Deflection
23	0.000	0.000	0.000	0.000	0.000	0:14.43
24	100.000	0.000	0.000	18.223	18.223	20:39:19
25	0.000	0.000	0.000	0.000	0.000	86:42:13
26	0.000	0.000	0.000	0.000	0.000	0:00:00

Road List				
DZANANI ROAD				
Position	CH	Y-Coord	X-Coord	Radius
BCC23	3509.595	87325.529	2531007.144	
PI23	3509.595	87325.529	2531007.144	0.000
ECC23	3509.595	87325.529	2531007.144	
BCC24	3528.431	87331.019	2531025.162	
PI24	3546.456	87336.331	2531042.594	100.000
ECC24	3564.481	87347.450	2531057.032	
BCC25	3887.211	87544.371	2531312.721	
PI25	3887.211	87544.371	2531312.721	0.000
ECC25	3887.211	87544.371	2531312.721	
END	3971.399	87613.914	2531265.272	

LAYOUT SCALE 1 : 1000

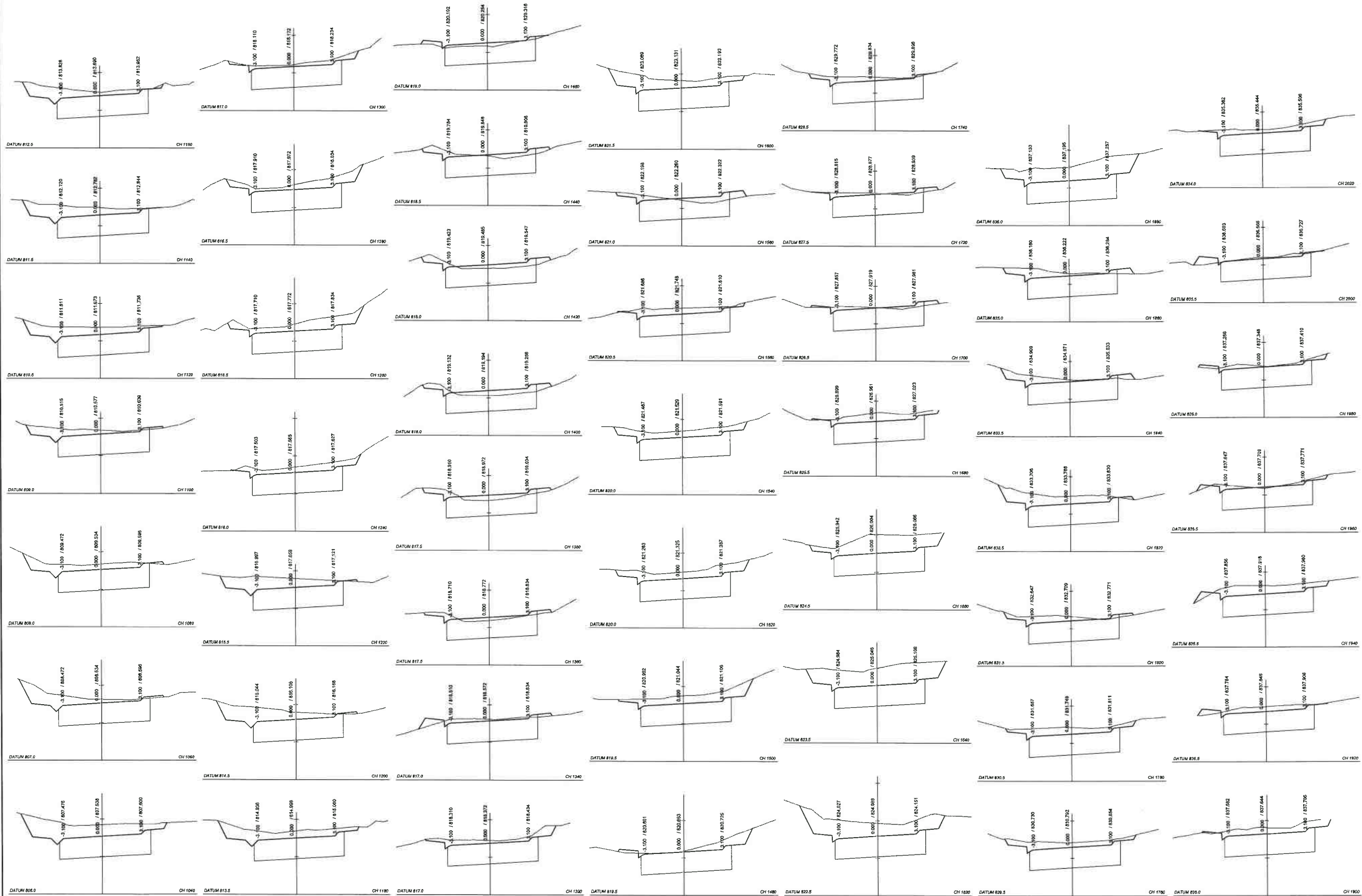


Chainage 3500 to 3971 SCALE - HOR 1:1000 VER 1:100

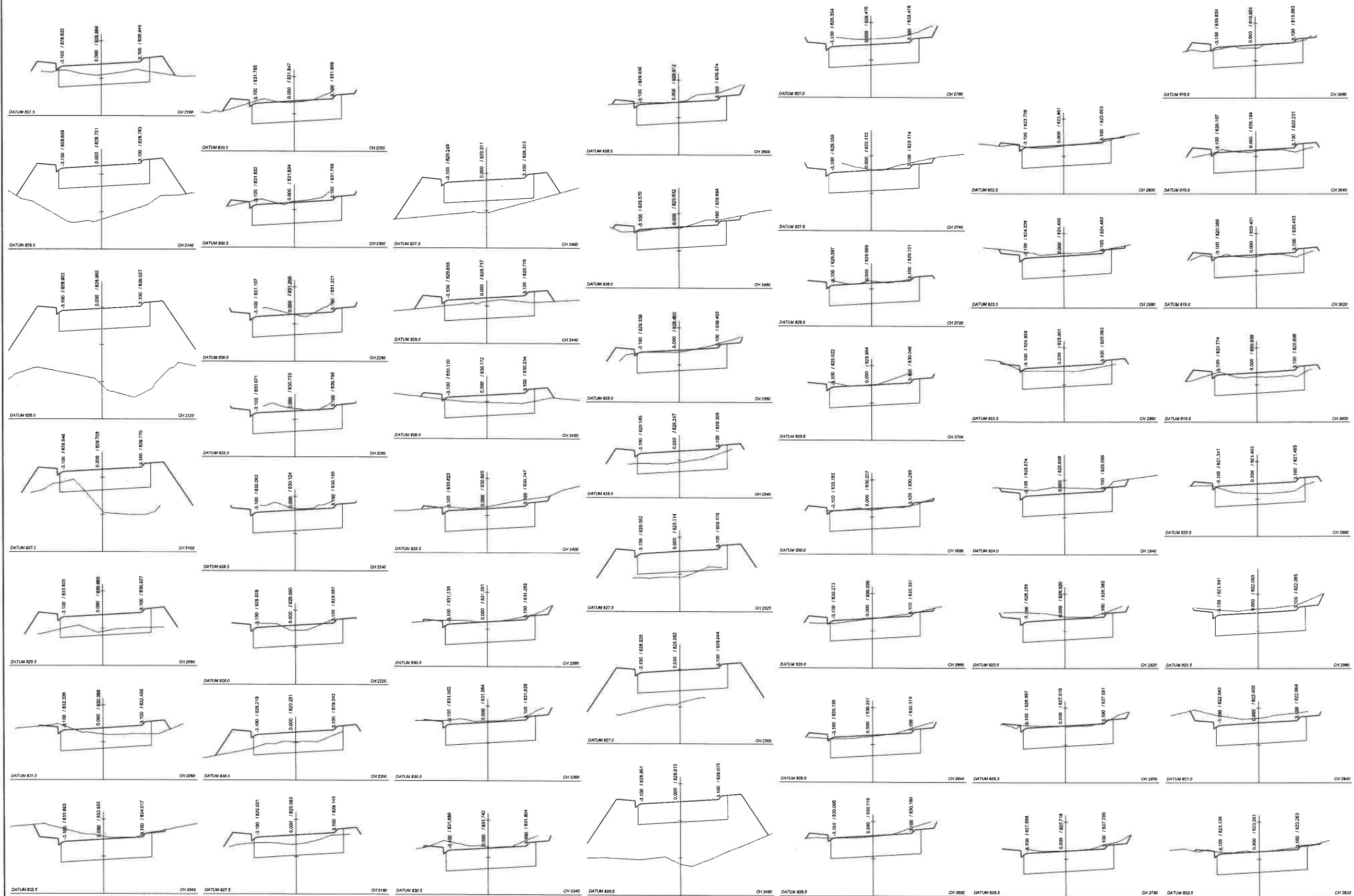
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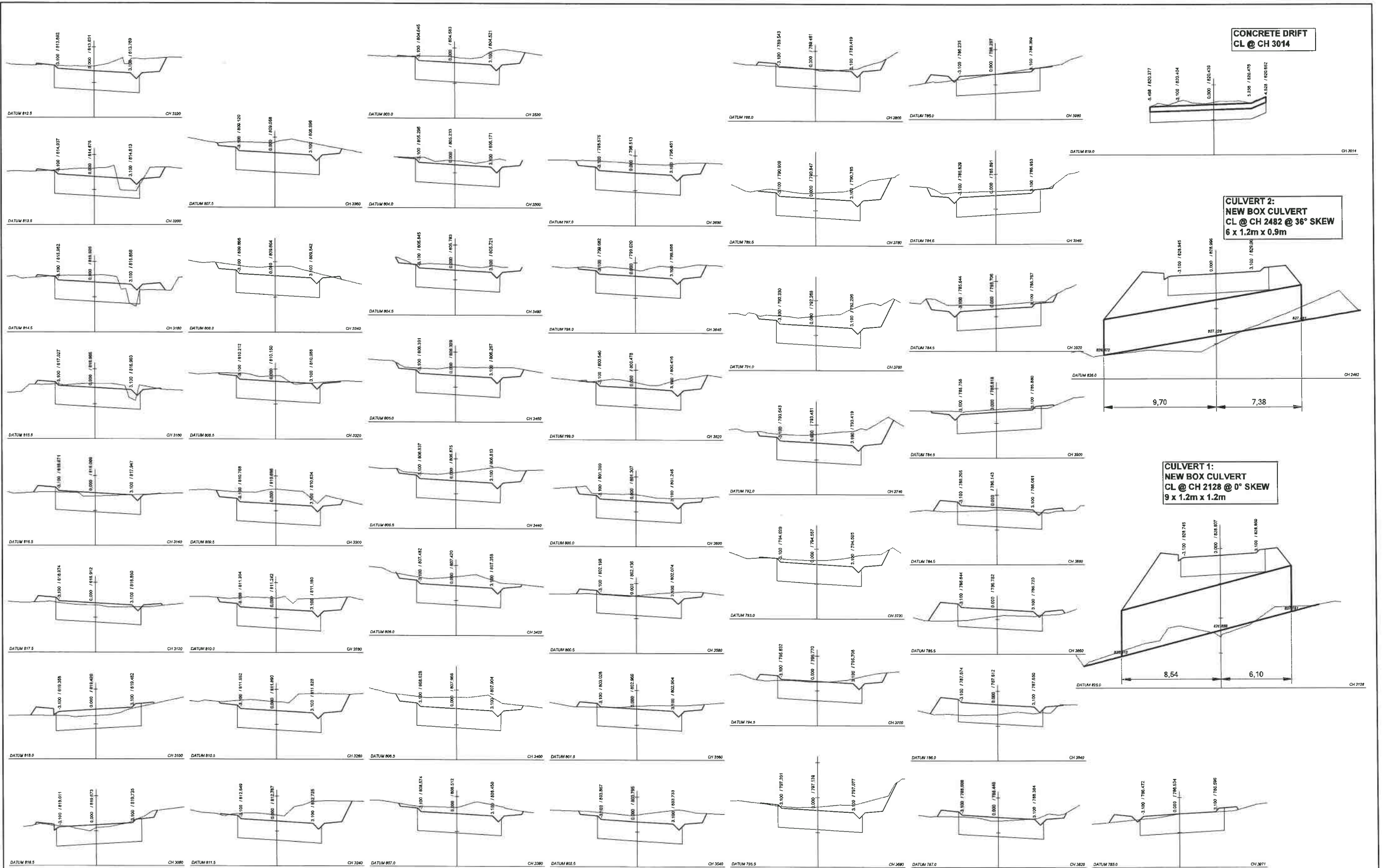




					DESIGNED BY	A BOTHA	 <p>CLIENT Makhado Municipality Private Bag X 2096 LOUIS TRICHARDT 0920</p> <p>TEL (015) 519 3000 FAX (015) 516 1145</p>	 <p>Consultant: DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850</p> <p>Tel/Fax: (015) 307 4098 E-mail: admin@daneprojects.co.za</p>	PROJECT NO. 70 of 2022		 <p>PROJECT NO. 70 of 2022</p>	SHEET 1 of 1
					CHECKED BY	O ZIVANAI			 <p>MAKATU TO TSHIKOTA ACCESS ROAD</p>	SCALE HOR 1 : 180 VER 1 : 60		
					DRAWN BY	Z MAHLANGU			 <p>ROAD CROSS SECTIONS: CH 1040 - CH 2020</p>	CONSULTANT'S DRAWING NUMBER DANE/2019-01/09		
					CHECKED BY	A BOTHA			 <p>70/2022/09</p>			
No	DATE	REVISION	CONSULT	DIR								



				DESIGNED BY	A BOTHA			CLIENT	 <div>Makhado Municipality Private Bag X 2896 LOUIS TRICHARDT 0920</div>	CONSULTANT:	 <div>DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Mediapark Tzaneen, 0850</div>			PROJECT NO. 70 of 2022		<div>PROJ NUMBER</div> <div>SHEET 1 of 1</div>	
				CHECKED BY	O ZIVANU									MAKATU TO TSHIKOTA ACCESS ROAD		<div>Rev 000</div>	



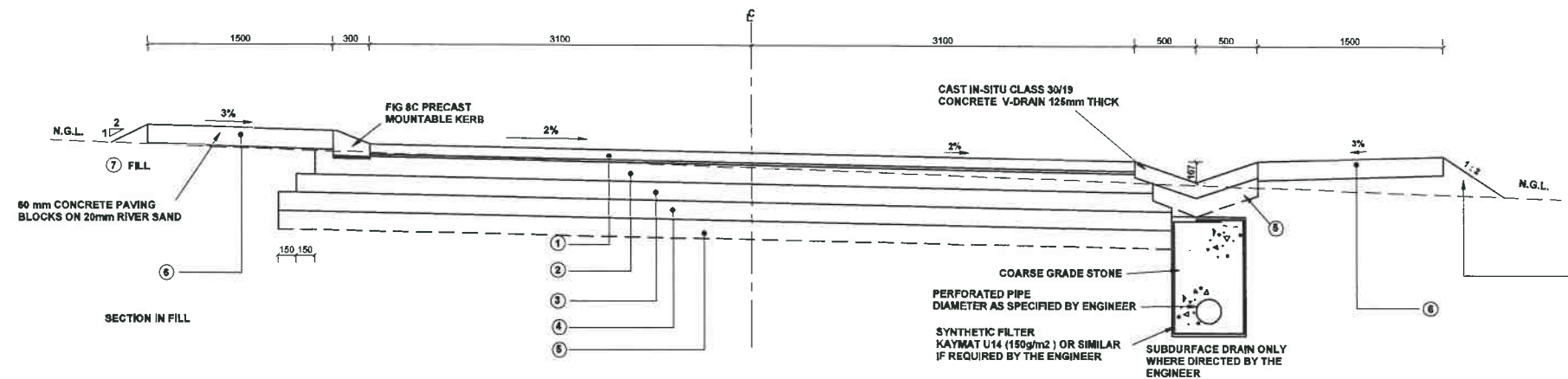
DESIGNED BY	A BOTHA
CHECKED BY	O ZWAKA
DRAWN BY	Z. MAKHLANDU
CHECKED BY	A. BOTHA



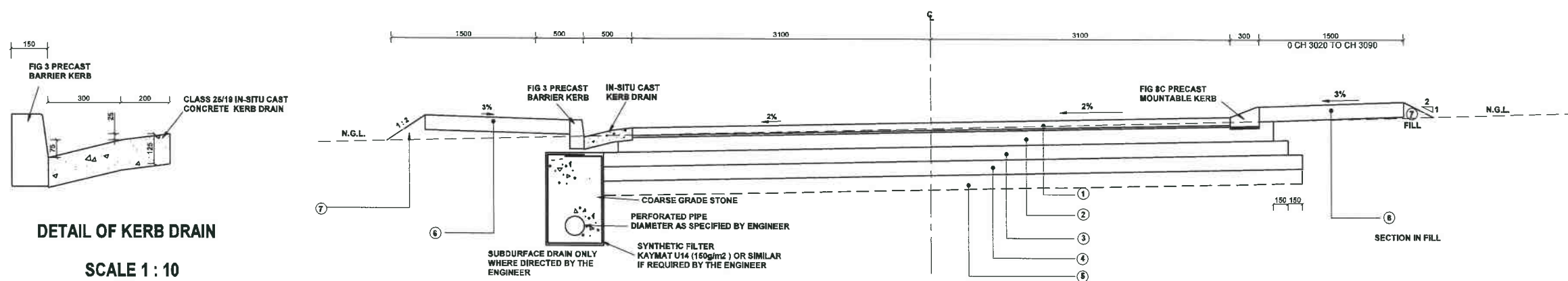
PROJECT NO. 70 of 2022
<b>MAKATU TO TSHIKOTA ACCESS ROAD</b>
<b>ROAD CROSS SECTIONS: CH 3080 - CH 3971 &amp; CROSS SECTIONS ON CULVERTS</b>

CONSULTING ENGINEER	DATE
DATE	
PROJECT NO. 70 of 2022	
<b>MAKATU TO TSHIKOTA ACCESS ROAD</b>	
<b>ROAD CROSS SECTIONS: CH 3080 - CH 3971 &amp; CROSS SECTIONS ON CULVERTS</b>	
CONSULTANT'S DRAWING NUMBER	CLIENT'S DRAWING NUMBER
DANE/2019-01/11	70/2022/11



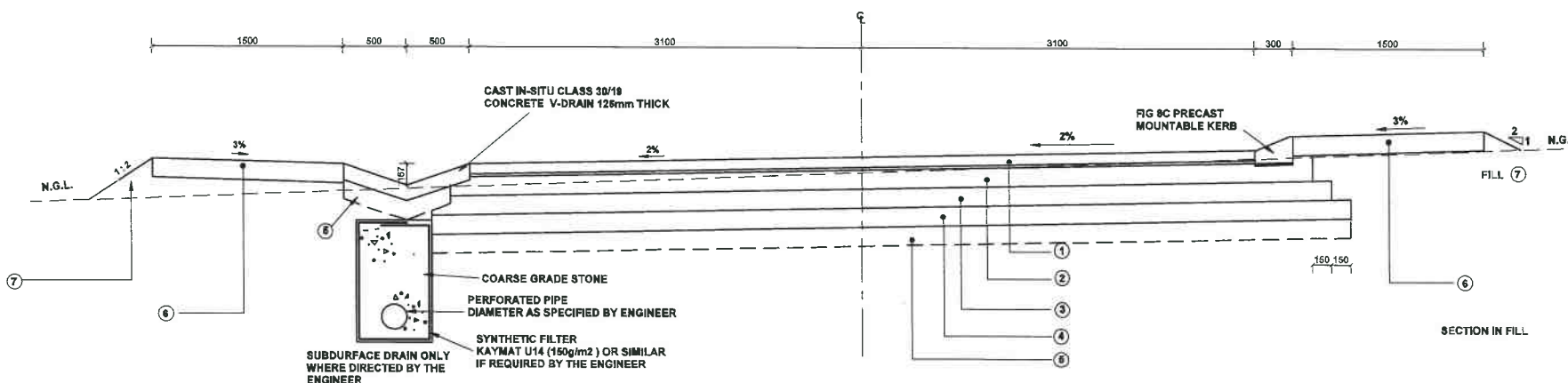


**TYPICAL CROSS SECTION ROAD WITH 1m V-DRAIN: CH 3120 TO CH 3880**  
SCALE 1 : 25



**TYPICAL CROSS SECTION ROAD WITH KERB DRAIN: CH 1220 TO CH 3110**  
SCALE 1 : 25

NO	LAYER	THICKNESS (mm)	TRH 4	COMPACTION (% OF)
1	SURFACE TREATMENT	80	S	80mm, 25MPa CONCRETE PAVING BLOCKS ON 20mm SIFTED RIVER SAND
2	BASE	125	C4	STABILIZED LAYER @ 97% MOD AASHTO
3	SUB-BASE	150	C4	STABILIZED LAYER @ 97% MOD AASHTO
4	UPPER SELECTED LAYER	150	G7	NATURAL GRAVEL COMPACTED TO 95% MOD AASHTO
5	ROADBED	150	IN-SITU	NATURAL GRAVEL COMPACTED TO 90% MOD AASHTO
6	SHOULDER	150	G9	NATURAL GRAVEL COMPACTED TO 90% MOD AASHTO
7	FILL		G9	NATURAL GRAVEL COMPACTED TO 90% MOD AASHTO



**TYPICAL CROSS SECTION ROAD WITH 1m V-DRAIN: CH 0 TO CH 1220 & CH 3890 - END**  
SCALE 1 : 25

DESIGNED BY: A BOTHA CHECKED BY: O ZYANAI DRAWN BY: Z MAHLANGU CHECKED BY: A BOTHA				CLIENT: Makhado Municipality Private Bag X 2686 LOUIS TRICHARDT 0920 TEL (015) 519 3000 FAX (015) 516 5145		Consultant: DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850 Tel/Fax: (015) 307 4098 E-mail: admin@daneprojects.co.za		PROJECT NO. 70 of 2022 MAKATU TO TSHIKOTA ACCESS ROAD TYPICAL CROSS SECTIONS & PAVEMENT DESIGN		SHEET 1 OF 1 SCALE: AS SHOWN CONSULTANT'S DRAWING NUMBER: DANE/2019-01/12 CLIENT'S DRAWING NUMBER: 70/2022/12
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						DESIGNED BY	A BOTHA	 <p><b>CLIENT</b> <b>Makhado Municipality</b> Private Bag X 2596 LOUIS TRICHARDT 0920  TEL (015) 519 3000 FAX (015) 518 8168  Tel/Fax: (015) 207 4058 E-mail: admin@daneprojects.co.za</p>	 <p><b>Consultant:</b> <b>DANE PROJECTS (PTY) LTD</b> 32 King Edward Drive Building B, Medipark Tzaneen, 0850  Tel/Fax: (015) 207 4058 E-mail: admin@daneprojects.co.za</p>	PROJECT NO. 70 of 2022		<div>Project Name M 7.1</div> <div>Project Number 22.1.1</div>	SHEET 1 of 1
					CHECKED BY	O ZIVAKA	SCALE						
						DRAWN BY	Z MAHLANGU						
No	DATE	REVISION	CONSULT	DR	CHECKED BY	A BOTHA						CONSULTANTS DRAWING NUMBER DANE/2019-01/13	CLIENT ORS NUMBER 70/2022/13





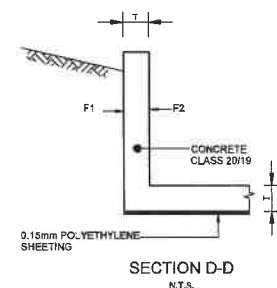
NOTE:  
EROSION PROTECTION AND ENERGY BREAKING  
BLOCKS FOR MULTIPLE CELL CULVERT  
SIMILAR TO SINGLE CELL CULVERT

NOTE:  
N = NUMBER OF CULVERTS



H	T	HH	WH
450	150	200	225
600	150	225	225
750	150	225	250
900	175	250	250
1200	200	250	275
1800	225	275	275
2100	225	275	300
2400	250	300	325
3000	350	300	350

FOR DETAILS ON FLOOR SLAB,  
SEE FLOOR SLAB DETAIL DRAWING



						DESIGNED BY	A BOTHA
						CHECKED BY	O ZINAJAI
						DRAWN BY	Z MAHLANGU
No	DATE	REVISION	CONSULT	DER	CHECKED BY	A BOTHA	



**Makhado Municipality**  
Private Bag X 2596  
LOUIS TRICHARDT  
0920

**TEL (015) 519 3000**  
**FAX (015) 516 8145**

Continued



**DANE PROJECTS (PTY) LTD**  
32 King Edward Drive  
Building B, Medipark  
Tzaneen, 0850

**Tel/Fax: (015) 307 4088**  
**E-mail: [admin@daneprojects.co.za](mailto:admin@daneprojects.co.za)**

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CONSULTING ENGINEER

DATE \_\_\_\_\_

PROJECT NO. 70 of 2022

**MAKATU TO TSHIKOTA ACCESS ROAD**

REINFORCEMENT DETAILS FOR INLET AND OUTLET  
STRUCTURES FOR PRECAST PORTAL CULVERTS : 90°  
AND SKEW TO ROAD (SHEET 1 OF 2 SHEETS)

**(d) Signature**

Page 16/104 8-10 884 2003

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CONSULTANT  
DRAWING NUMBER

JUNE/2019

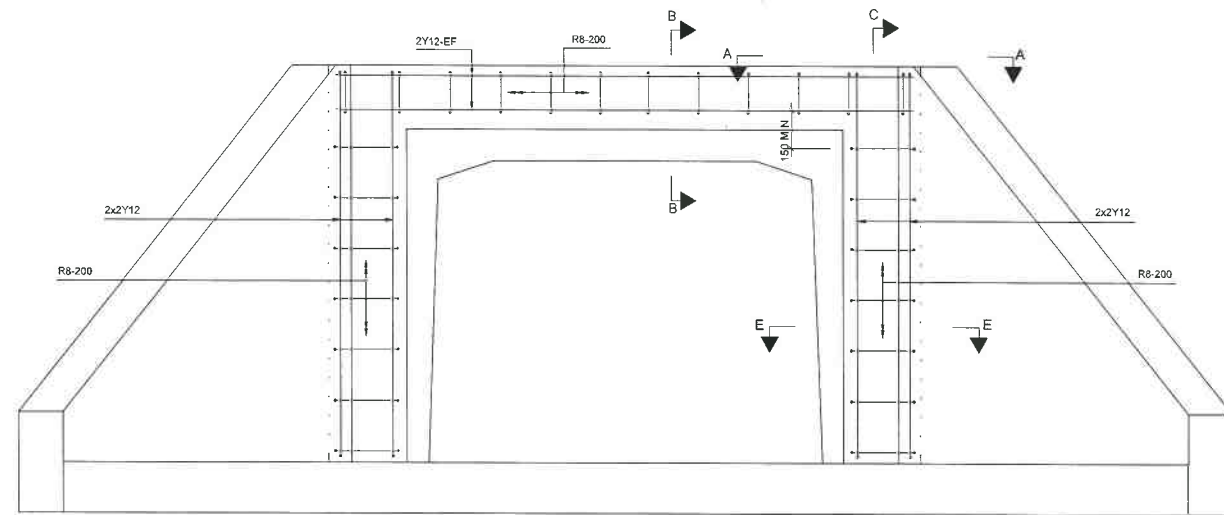
SHEET 1 of 1

SCALE

1

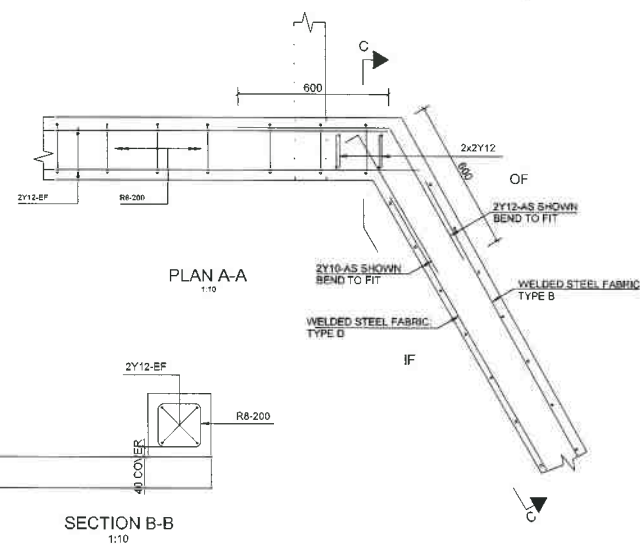
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4 | 70/2



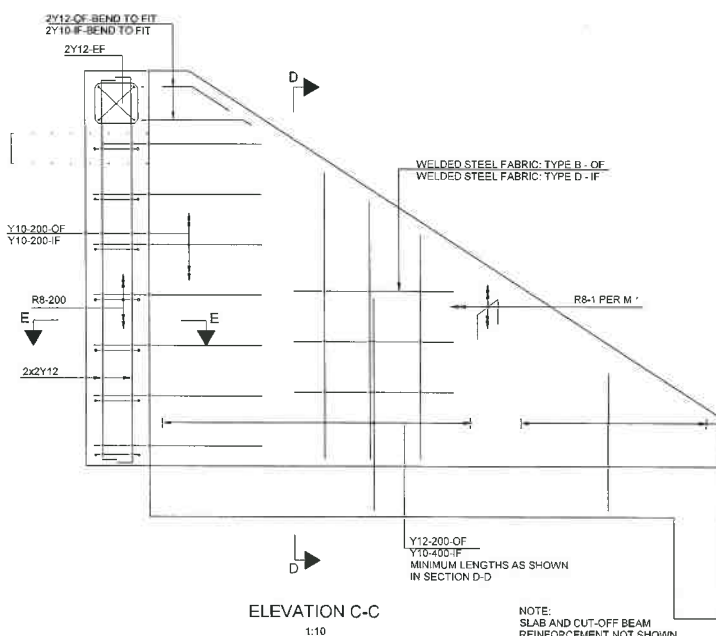
ELEVATION  
1:10

NOTE:  
1. WINGWALL REINFORCEMENT AND STARTER BARS  
NOT SHOWN FOR CLARITY  
2. SKEW CULVERT IS SIMILAR



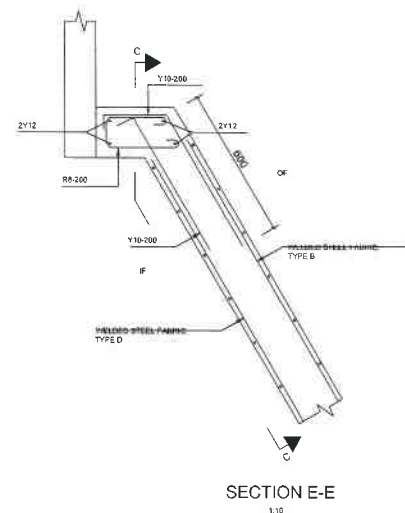
PLAN A-A  
1:10

SECTION B-B  
1:10

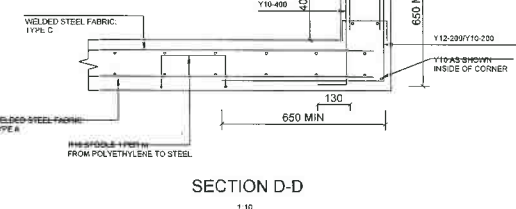


ELEVATION C-C  
1:10

NOTE:  
SLAB AND CUT-OFF BEAM  
REINFORCEMENT NOT SHOWN

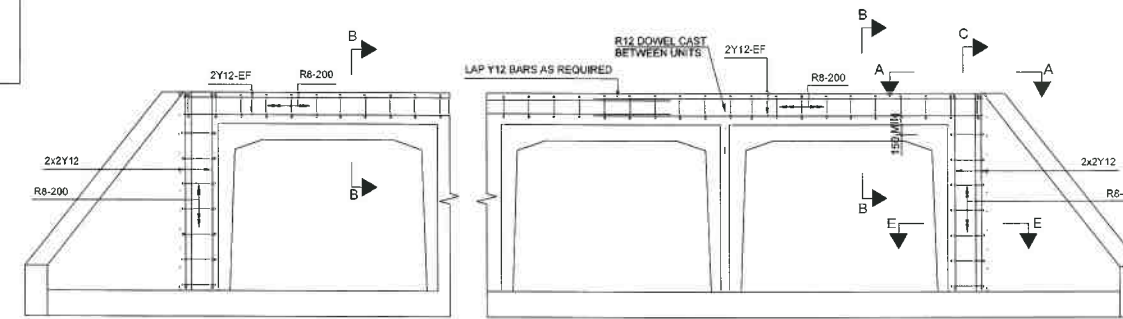


SECTION E-E  
1:10



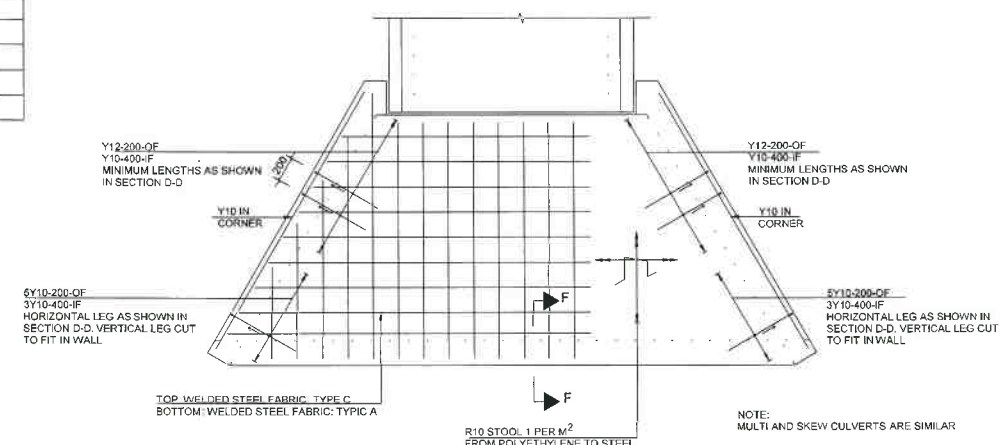
SECTION D-D  
1:10

BOX (H)	T	WELDED STEEL FABRIC REF. NO.			
		TYPE A	TYPE B	TYPE C	TYPE D
450	150	245	245		
600	150	245	245		
750	150	395	245		
900	175	395	245		
1200	200	617	311	245	245
1500	200	617	395	245	245

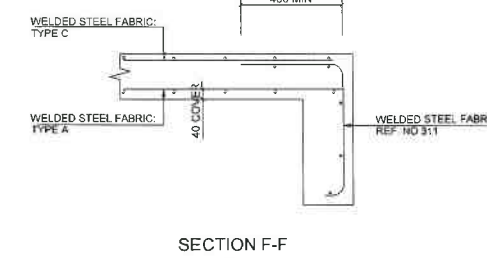


ELEVATION MULTIPLE CELL UNIT  
1:20

NOTE:  
1. WINGWALL REINFORCEMENT AND STARTER BARS  
NOT SHOWN FOR CLARITY  
2. SKEW CULVERT UNITS ARE SIMILAR



FLOOR PLAN  
1:20



SECTION F-F  
1:10

25MPa CONCRETE		25MPa CONCRETE	
BAR DIA	MIN LAP LENGTH	WELDED STEEL FABRIC REF. NO.	MIN LAP LENGTH
10	550	245	350
12	660	311	390
		395	440
		500	495
		617	550

No	DATE	REVISION	CONSULT	DR	CHECKED BY
					A BOTHA
					O ZIVANAI
					Z MAHLANGU

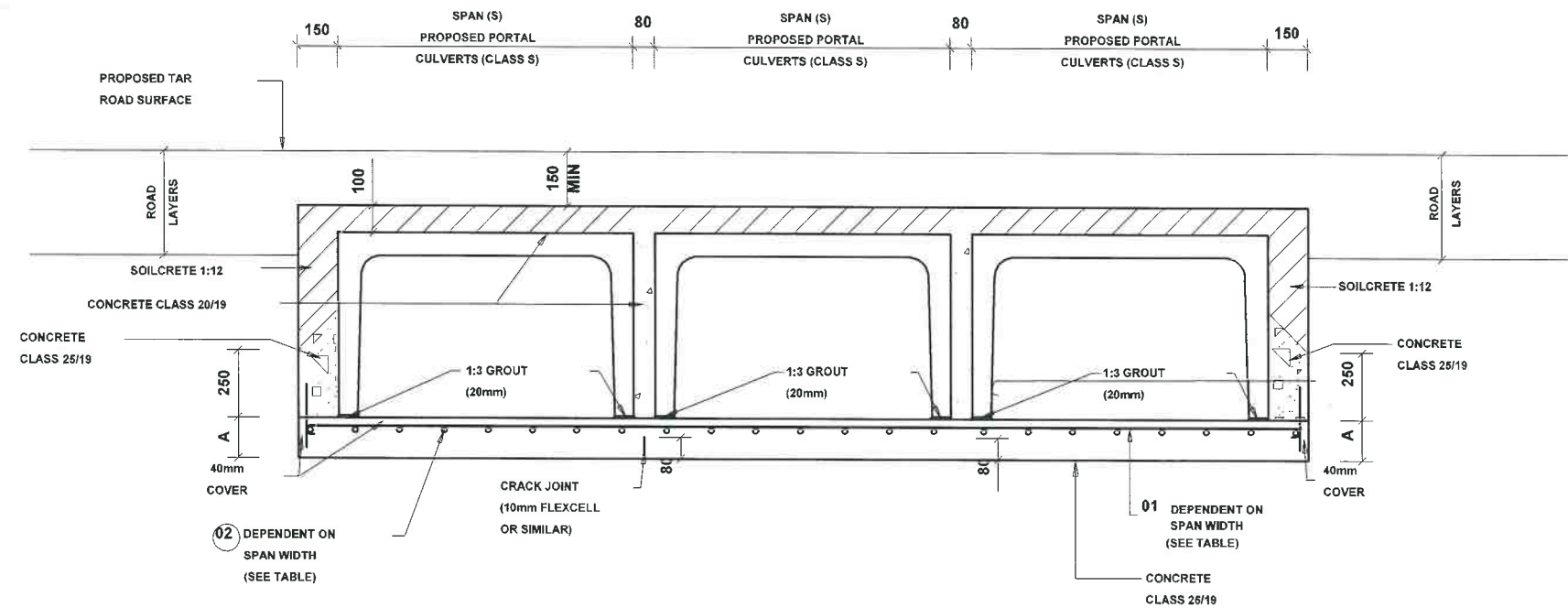
DESIGNED BY	A BOTHA
CHECKED BY	O ZIVANAI
DRAWN BY	Z MAHLANGU
CHECKED BY	A BOTHA

CLIENT	MAKHADO Municipality Private Bag X 2596 LOUIS TRCHARDT 0520 TEL (015) 519 3000 FAX (015) 516 6145
Consultant:	DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850 Tel/Fax: (016) 307 4098 E-mail: admin@daneprojects.co.za

CEO - MAKHADO MUNICIPALITY	DATE
CONSULTING ENGINEER	DATE

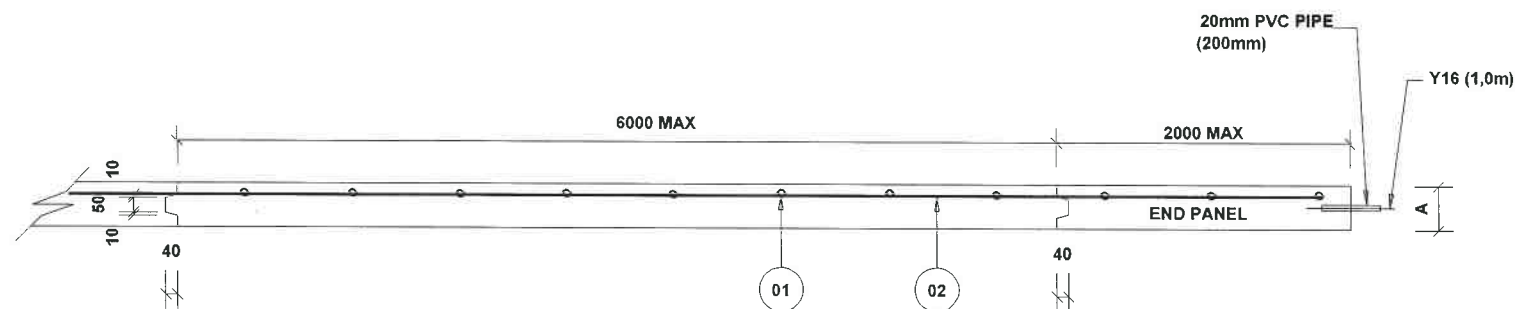
PROJECT NO. 70 of 2022	MAKATU TO TSHIKOTA ACCESS ROAD
REINFORCEMENT DETAILS FOR INLET AND OUTLET STRUCTURES FOR PRECAST PORTAL CULVERTS - 90° AND SKEW TO ROAD (SHEET 2 OF 2 SHEETS)	

CONSULTANTS DRAWING NUMBER	DANE/2019-01/15
CLIENT PROJECT NUMBER	70/2022/15
SHEET	1 OF 1
SCALE	NTS



**TYPICAL SECTION - BOX CULVERT**  
N.T.S.

**ENGINEER TO APPROVE CONSTRUCTION JOINTS ON SITE**



**DETAIL OF JOINTS BETWEEN FLOOR SLABS**

DETAILS OF INSITU CAST FLOORS				
DIMENSIONS			REINFORCING	
S	BACK FILL HEIGHT	A	BAR O1	BAR O2
600	0m - 10m	160	Y12 @ 150	Y10 @ 250
750	0m - 8m	170	Y12 @ 150	Y10 @ 200
900	0m - 4m	180	Y12 @ 150	Y10 @ 150
	4m - 8m	200	Y12 @ 125	
1200	0m - 3m	220	Y16 @ 225	Y12 @ 300
	3m - 6m	240	Y16 @ 200	
1800	0m - 3m	240	Y16 @ 200	Y12 @ 200
	3m - 6m	260	Y16 @ 175	
1800	0m - 3m	240	Y16 @ 200	Y16 @ 200
	3m - 5m	260	Y16 @ 150	
2100	0m - 3m	240	Y16 @ 175	Y16 @ 200
	3m - 5m	275	Y16 @ 150	
2400	0m - 3m	240	Y16 @ 175	Y16 @ 200
	3m - 5m	275	Y16 @ 150	
3000	0m - 3m	260	Y16 @ 150	Y16 @ 150
	3m - 5m	350	Y20 @ 200	
3600	0m - 3m	300	Y16 @ 150	Y16 @ 150
	3m - 5m	350	Y20 @ 200	

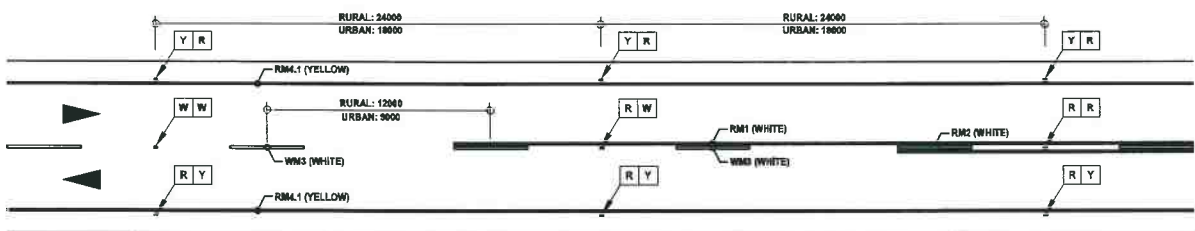
**COVER ON ALL REINFORCEMENT - 40mm**  
**CULVERT CLASS-S DETERMINED BY SPAN**

DESIGNED BY: A BOTHA CHECKED BY: O ZIVANAI DRAWN BY: Z MAHLANGU CHECKED BY: A BOTHA					CLIENT: Makhado Municipality Private Bag X 2596 LOUIS RICHARDT 0920 TEL (015) 519 3000 FAX (015) 516 5145		Consultant: DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850 Tel/Fax: (015) 307 4088 E-mail: admin@daneprojects.co.za		PROJECT NO. 70 of 2022 MAKATU TO TSHIKOTA ACCESS ROAD BOX CULVERT FLOOR SLAB DETAILS		SHEET 1 OF 1 SCALE NTS CONSULTANT: DANE PROJECTS (PTY) LTD DRAWING NUMBER: DANE/2019-01/16 CLIENT: 70/2022/16	
--	--	--	--	--	--	--	---	--	--	--	---	--





**N.T.S.**



**NOTE:**  
50mm PREFERRED SEPERATION BETWEEN  
ROAD MARKINGS AND ROAD STUDS.

**COLOUR CODING:**

R	RED
Y	YELLOW
W	WHITE

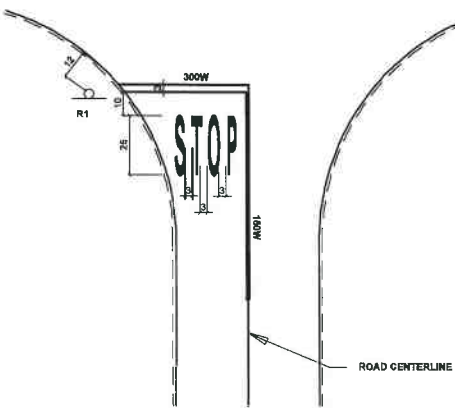
## TYPICAL ROADSTUD USE ON TWO-WAY ROADS

**N.T.S**



## NO OVERTAKING LINE AHEAD ARROWS WM8

N.T.S



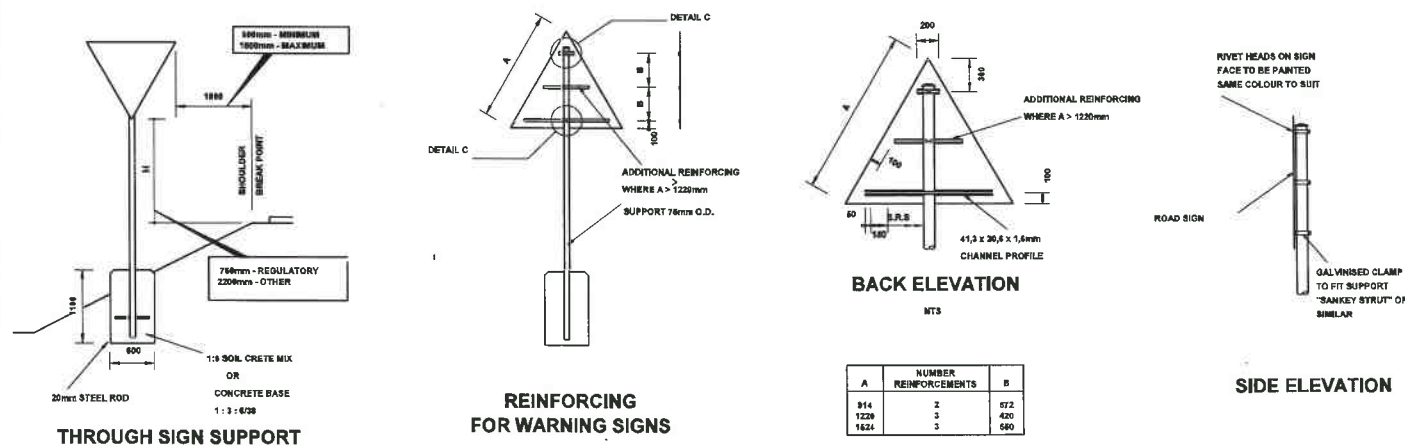
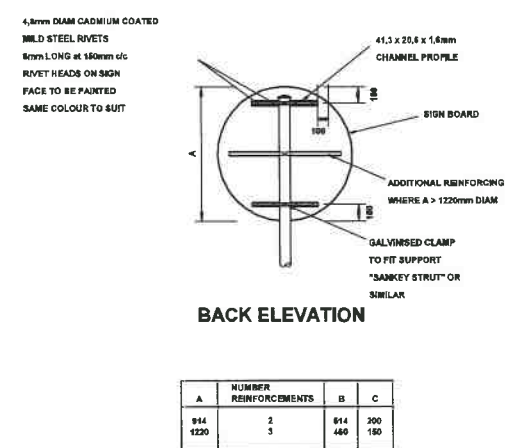
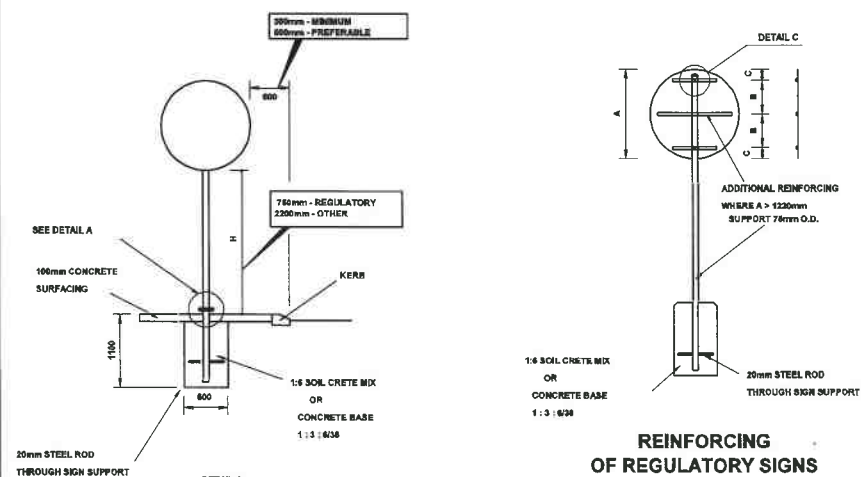
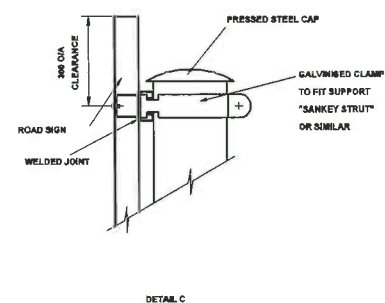
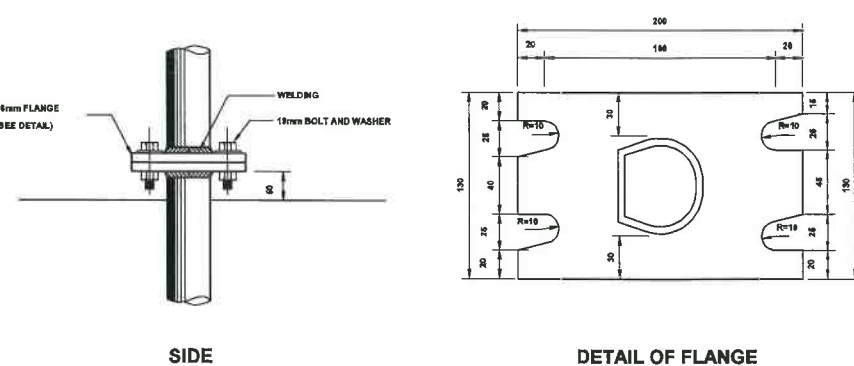
### TYPICAL DETAIL OF STOP MARKING

**N.T.S.**

**NOTES:**

1. ROADSTUDS MUST OF S99 TYPE OR SIMILAR APPROVED
2. ONLY APPROVED MACHINES MAY APPLY ROAD MARKING PAINT
3. PAINT SHALL ONLY BE APPLIED TO SURFACES THAT ARE CLEAN, DRY AND COMPLETELY FREE FROM ANY SOIL, GREASE, OIL, ACID OR ANY OTHER MATERIAL WICH WILL BE DETRIMENTAL TO THE BOND BETWEEN PAINT AND SURFACE.
4. ROAD MARKING SHALL BE COMPLETED BEFORE A SECTION OF ROAD IS OPENED TO TRAFFIC.

					DESIGNED BY	A BOTHA	 <p>Makhado Municipality Private Bag X 2686 LOUIS TRICHARDT 0920</p> <p>TEL (016) 616 3000 FAX (016) 616 6145</p>	 <p>Consultant: DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medpark Tzaneen, 0850</p> <p>Tel/Fax: (015) 307 4088 E-mail: admin@daneprojets.co.za</p>	PROJECT NO. 70 of 2022		<div>P1 Signature</div> <div>M.F.F.</div> <div>P16 SIGNATURE</div> <div>M.F.F.</div> <div>P16 SIGNATURE</div> <div>M.F.F.</div>	SHEET 1 OF 1
					CHECKED BY	O ZWAKI			MAKATU TO TSHIKOTA ACCESS ROAD		SCALE	
					DRAWN BY	Z MAMABOBU					NTS	
NO	DATE	REVISION	CONSULT	DR	CHECKED BY	A BOTHA			CONSULTANTS DAVIDEY VUURMAN DATED 2019-01/17		CLIENT: TSHIKOTA 70/2022/17	



					DESIGNED BY	A BOTHA
					CHECKED BY	O ZIVAMAI
					DRAWN BY	Z MAHLANGU
No	DATE	REVISION	CONSULT	DIR	CHECKED BY	A BOTHA



Consultant:

  
DANE PROJECTS (PTY) LTD  
32 King Edward Drive  
Building B, Medipark  
Tzaneen, 0850

Tel/Fax: (015) 307 4088  
E-mail: [admin@daneprojects.co.za](mailto:admin@daneprojects.co.za)

\_\_\_\_\_  
CEO : MARICORDA MUNICIPALITY

\_\_\_\_\_  
DATE

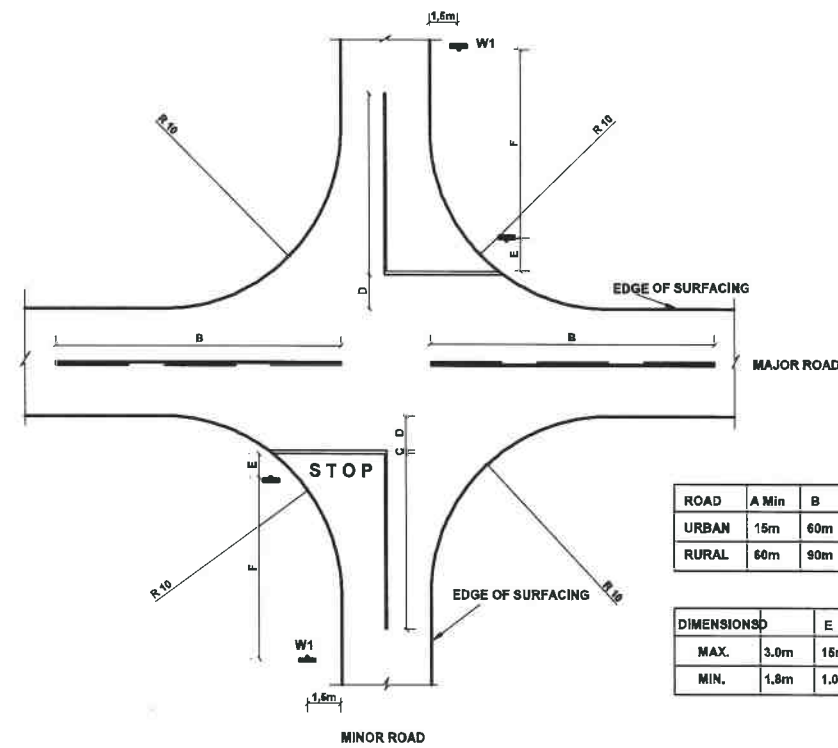
\_\_\_\_\_  
CONSULTING ENGINEER

\_\_\_\_\_  
DATE

	PROJECT NO. 70 of 2022
	MAKATU TO TSHIKOTA ACCESS ROAD
	ROAD SIGN ERECTION DETAIL

The applicant MS / /		STREET 1 OF 1
THE BRAND OR BUSINESS MS / /		SCALE NTS
Non Consulting Engineer	CLERGY ORG NUMBER	
CONSULTANTS DRAWING NUMBER <b>DANE/2019-01/18</b>		<b>70/2022/18</b>

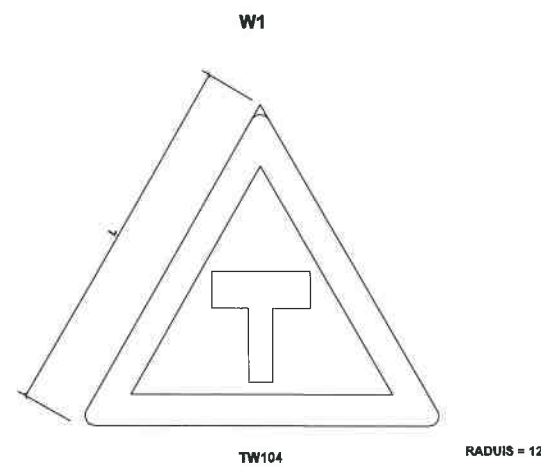




ROAD	A Min	B	C Min
URBAN	15m	60m	1.6m
RURAL	60m	90m	2.6m

DIMENSIONS	E
MAX.	3.0m
MIN.	1.8m

CROSS SECTION DETAIL

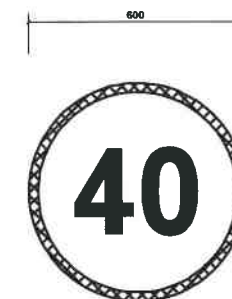
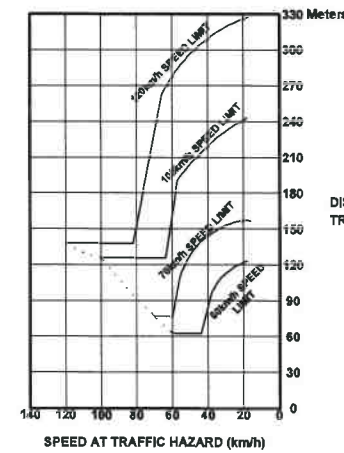


TRIANGLE : RED REFLECTORISED  
SYMBOL : WHITE REFLECTORISED  
BACKGROUND : BLUE SEMI-MATT

L	a	b	c	d
914	25	32	114	95

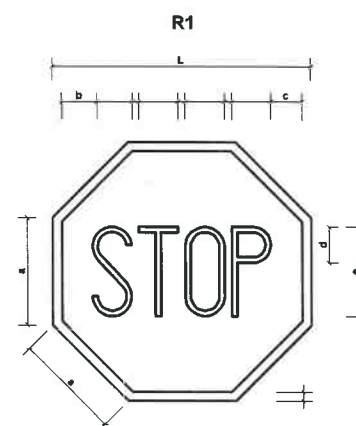
T-JUNCTION

F = LOCATION OF DANGER WARNING SIGNS



NOTE :  
THE ACTUAL SPEED LIMIT TO BE  
USED WILL BE SPECIFIED ON  
SITE BY THE ENGINEER.

**SPEED LIMIT  
(R14)**

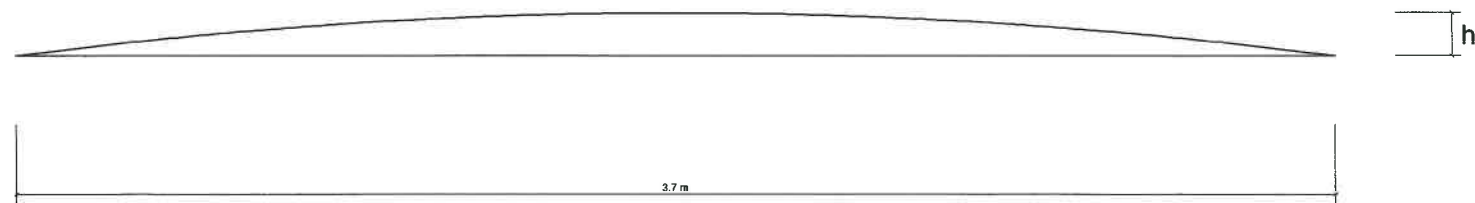


BORDER AND LEGEND : WHITE REFLECTORISED  
BACKGROUND : RED REFLECTORISED  
LETTERS : SERIES C

L	a	b	c	d	e
380	169	27	16	63	127

STOP SIGN DETAIL

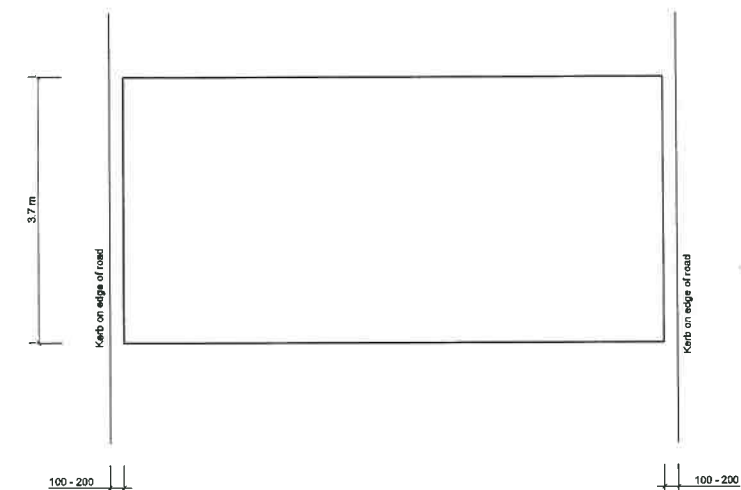
DESIGNED BY: A BOTHA CHECKED BY: O ZIVANAI DRAWN BY: Z MAHLANGU CHECKED BY: A BOTHA				<b>CLIENT</b>  Makhado Municipality Private Bag X 2696 LOUIS TRICHARDT 0920 TEL (015) 619 3000 FAX (015) 616 6145		<b>Consultant:</b>  DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850 Tel/Fax: (015) 307 4098 E-mail: admin@daneprojects.co.za		<b>PROJECT NO. 70 of 2022</b> CED: MAKHADO MUNICIPALITY DATE: _____ CONSULTING ENGINEER: _____ DATE: _____		<b>MAKATU TO TSHIKOTA ACCESS ROAD</b> <b>STOP AND ROAD SIGN DETAILS</b>		SHEET 1 OF 1 SCALE: NTS CONSULTANTS: DANE/2019-01/19 CLIENT DOW NUMBER: 70/2022/19
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Section through Semi-Round circular hump

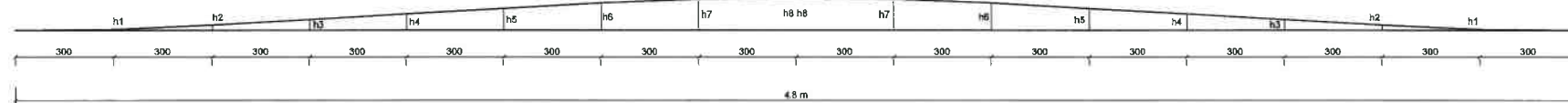
Scale 1 : 10

Design Speed (km/h)	Height (h) in mm	Decision sight distance (m)
30	120	50 km/h 135 - 195
40	100	60 km/h 170 - 235
50	80	70 km/h 200 - 275



Plan of hump

Scale 1 : 50



h1 = 4 mm	h5 = 67 mm
h2 = 16 mm	h6 = 84 mm
h3 = 38 mm	h7 = 96 mm
h4 = 60 mm	h8 = 100 mm

Section through Sinusoidal hump

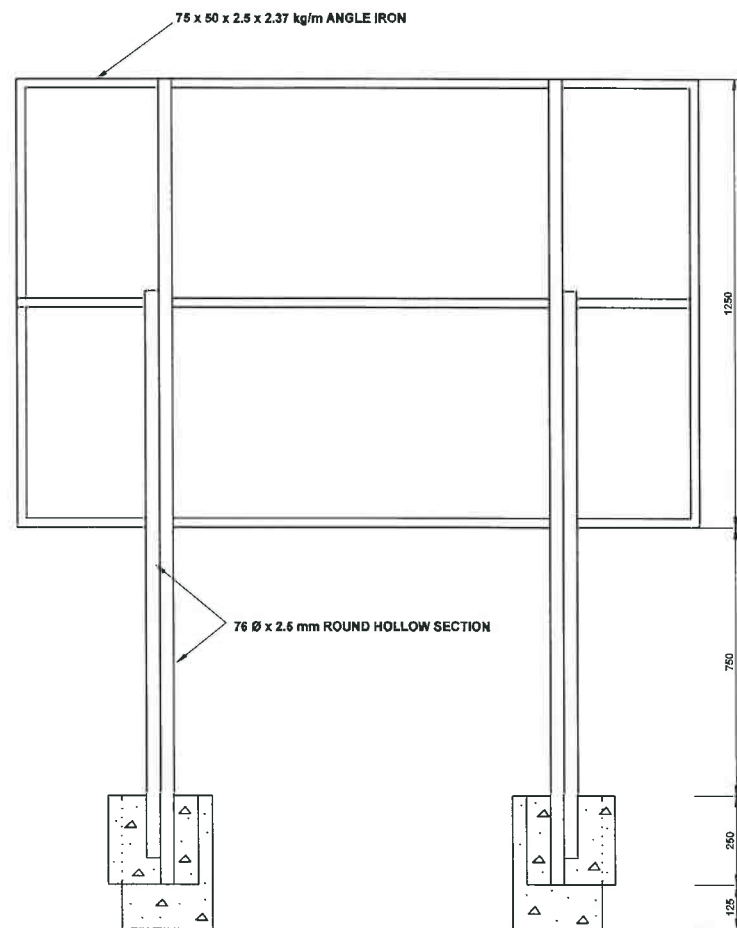
Scale 1 : 10

inner width = 1.4 m

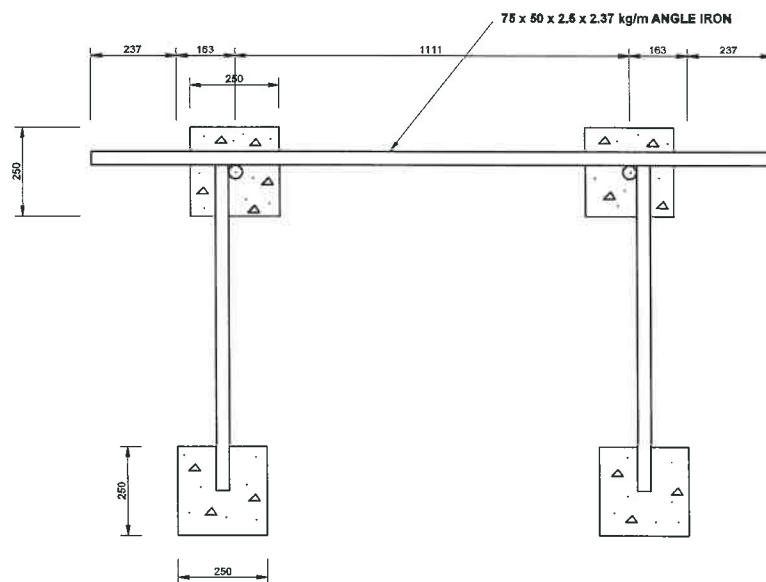
Spacing between speed humps :

Maximum desired speed between speed humps (km/h)	Spacing (m)
35	60
40	100
45	150
50	200

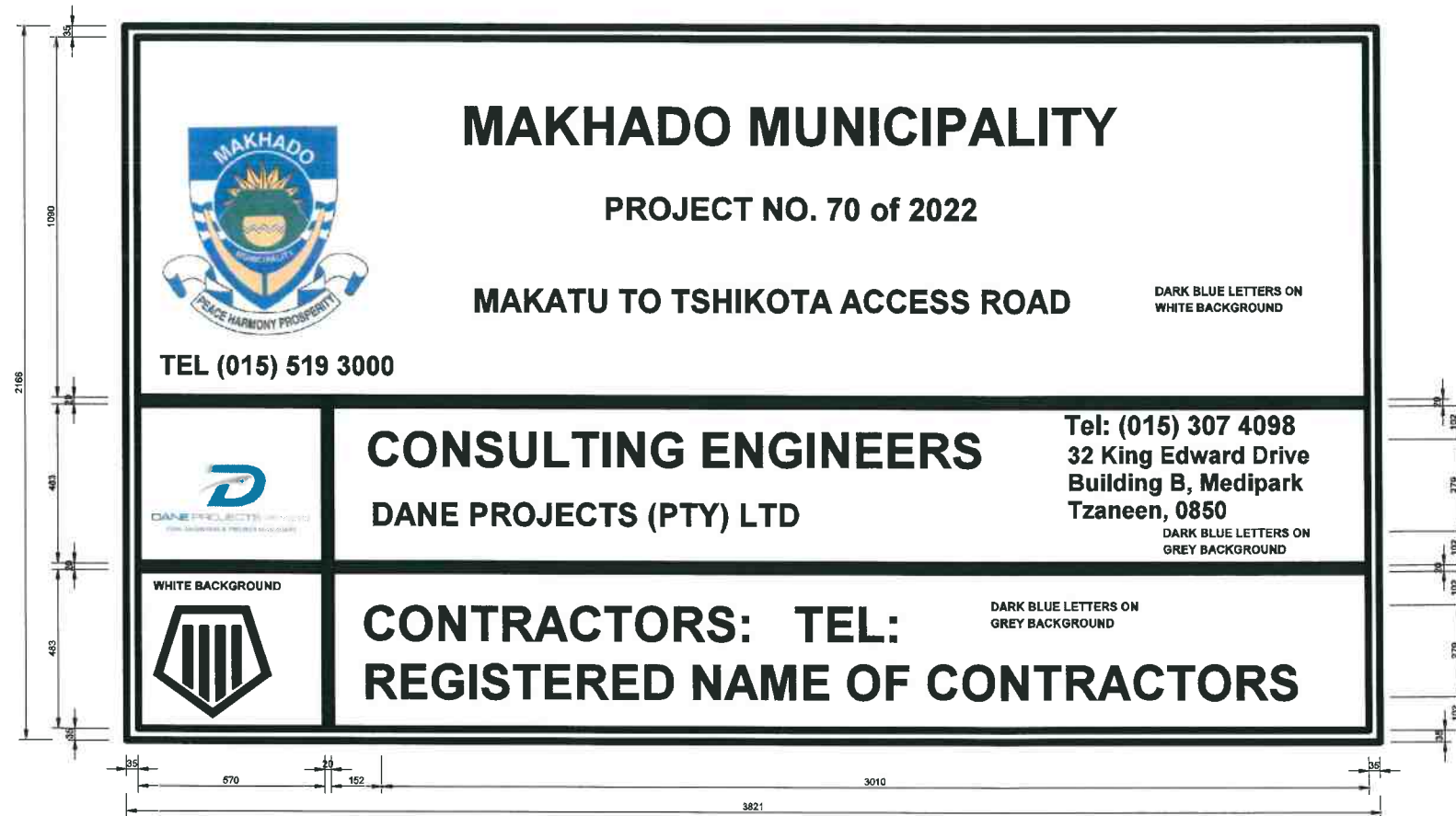
					DESIGNED BY	A BOTHA		<b>CLIENT</b> Makhado Municipality Private Bag X 2596 LOUIS TRICHARDT 0920  TEL (016) 519 3000 FAX (016) 516 5145	<b>Consultant:</b>  DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850  Tel/Fax: (015) 307 4098 E-mail: admin@daneprojects.co.za	<b>PROJECT NO. 70 of 2022</b>  <b>MAKATU TO TSHIKOTA ACCESS ROAD</b>  <b>DETAIL OF SPEED HUMPS</b>	 CONSULTANTS DAVID ROSSouw DANE/2019-01/20	<b>SHEET 1 of 1</b>  <b>SCALE</b> 1 : 10  <b>CHECKED BY</b> 70/2022/20
					CHECKED BY	O ZYANAI						
					DRAWN BY	Z MAHLANGU						
					CHECKED BY	A BOTHA						
No	DATE	REVISION	CONSULT	DATE								



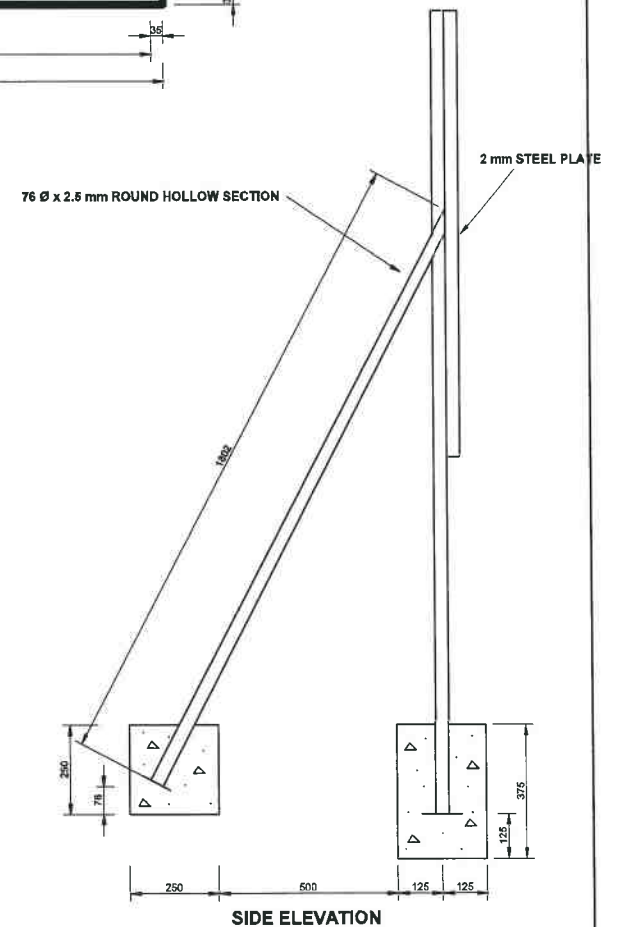
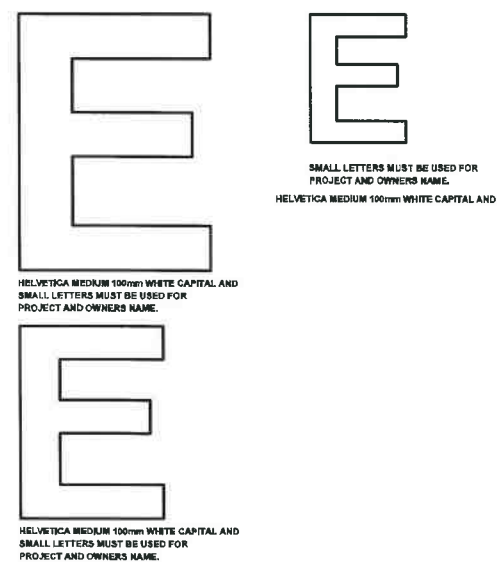
BACK ELEVATION  
SCALE 1 : 10



TOP ELEVATION  
SCALE 1 : 10



SIGNBOARD  
SCALE 1:10



SIDE ELEVATION

#### RULES

1. Typeface to be used shall be helvetica medium.
2. Size of lettering and dimensions are indicated on the diagram and shall be strictly adhered to.
3. Height of the board depends on number of professional services displayed. Note all professional services are to be shown.
4. Project name and owner shall be white lettering on middle blue background surrounding border shall be in middle blue.
5. Professional crests and company names shall be in black on white.
6. The board shall conform to the diagram subject to rule 4.

NOTA: Paint colours are based on plascon-evans. White v10 : Tequila v10 ("Velvagio" polyurethane enamel) black ref. 266, middle blue ref. 290 (acrylic road sign paints)

				DESIGNED BY	A BOTHA		<b>CLIENT</b>  Makhado Municipality Private Bag X 2694 LOUIS TRICHARDT 0920  TEL (015) 519 3000 FAX (015) 516 6145		<b>Consultant:</b>  DANE PROJECTS (PTY) LTD 32 King Edward Drive Building B, Medipark Tzaneen, 0850  Tel/Fax: (015) 307 4088 E-mail: admin@daneprojects.co.za	PROJECT NO. 70 of 2022		<div>Signature: _____</div> <div>Project No. 70 of 2022</div> <div>Scale: AS SHOWN</div>		SHEET 1 OF 1		
				CHECKED BY	O ZYAKAI					CEO : MAKHADO MUNICIPALITY		DATE		MAKATU TO TSHIKOTA ACCESS ROAD		
				DRAWN BY	Z MAHLANGU											
No	DATE	REVISION	CONSULT	DUR	CHECKED BY	A BOTHA					CONTRACT NAME BOARD		DANE/2019-01/21	70/2022/21		