



**GAUTENG PROVINCE**  
ROADS AND TRANSPORT  
REPUBLIC OF SOUTH AFRICA

**TENDER NUMBER: DRT 02/06/2022**

**MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE  
YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**PROCUREMENT DOCUMENT**

**SEPTEMBER 2023**

**ISSUED BY:**

HEAD OF DEPARTMENT  
DEPARTMENT OF ROADS AND TRANSPORT  
PRIVATE BAG X83  
MARSHALLTOWN  
2107

**NAME OF TENDERING ENTITY:.....**

**ADDRESS:.....**

**TEL NO. ..... FAX NO. ....**

**TOTAL OF PRICES INCLUSIVE OF VALUE ADDED TAX:**

**BILL A: BENONI REGION R .....**

**BILL B: BRONKHORSTS普RUIT REGION R .....**

**BILL C: KRUGERSDORP REGION R .....**

**BILL D: PRETORIA REGION R .....**

**BILL E: VEREENIGING REGION R .....**



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## **Tender Notice and Invitation to Tender**

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

TENDER NUMBER	SERVICE	CIDB	COMPULSORY SITE BRIEFING	CLOSING DATE
DRT 02/06/2022	Marking and re-marking of roads for a period of three years: All 5 Regions in the Gauteng Province	Bill A: Benoni – 7SK or higher Bill B: Bronkhorstspruit – 7 SK or higher Bill C: Krugersdorp – 8 SK or higher Bill D: Pretoria – 7 SK or higher Bill E: Vereeniging- 7 SK or higher	<b>Venue:</b> Main Boardroom, Department of Roads and Transport 1215 Nico Smith Street Koedoespoort Pretoria <b>Date:</b> 10 November 2023 <b>Time:</b> 11H00 <b>NB:</b> Failure to attend site briefing will result in disqualification	<b>Date:</b> 01 December 2023 <b>Time:</b> 11H00 <b>Tender Box</b> Gauteng Department of Roads and Transport, Ground floor, Life Centre Building, 45 Commissioner Street, Johannesburg. Tenderers are advised to timeously submit documents earlier than closing date to avoid crowding.

The Gauteng Department of Roads and Transport adhere to all relevant Acts including but not limited to, the Constitution of the Republic of South Africa of 1996, the Black Economic Empowerment Act No.53 of 2003, Preferential Procurement Policy Framework Act No.5 of 2000, Employment Equity Act No. 55 of 1998 and the Public Finance Management Act No 1 of 1999.

In terms of Preferential Procurement Regulation of 2022, the Department will be applying the 80/20 and / or 90/10 preference point system.

**The principle of the “work-spread model” will be implemented as follows at the tender evaluation: (Bidders must complete Page 21: Schedule of recently completed and current contracts in the Department)**

A bidder will be disqualified:

- If the bidder has three (3) or more contracts that are currently in progress or have not been certified as practically complete at the time of tender closure with the Department; or
- If the bidder has contract/s that amounts to more than R250 million which have a contractual remaining period of more than 12 months with the Department that are currently in progress or have not been certified as practically complete at the time of tender closure.

### **OBJECTIVE CRITERIA:**

**The Department will apply the work spread model as objective criteria to multiple tenderers, irrespective of highest total number of points scored, which comprises the following:**

- A tenderer will not be awarded more than two (2) bills of quantity (contracts). The tenderer scoring the highest points for more than two (2) bills of quantity (contracts), will be limited to the two (2) highest Rand value bills of quantity (contracts), at the time of award.

- The remaining bills of quantity will be awarded to the qualifying tenderers scoring the highest points.
- In the event that there are insufficient qualifying bidders for the remaining bills of quantity, the Department reserves the right to award more than two (2) bills of quantity (contracts) to a qualifying tenderer, provided that the tenderer submitted a price proposal for the applicable bill of quantity (contract).

#### **COMPULSORY/MANDATORY TENDER REQUIREMENTS:**

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

- Proof of registration with CIDB (Construction Industry Development Board) for the following grading: **7SK** or higher. (Bill A - Benoni, Bill B - Bronkhorstspruit, Bill D – Pretoria and Bill E - Vereeniging)
- Proof of registration with CIDB (Construction Industry Development Board) for the following grading: **8 SK** or higher. (Bill C: Krugersdorp)
- Traffic Health and Safety Officer must be registered with SACPCMP as a Construction Health and Safety Officer. The prospective bidders must provide proof of registration with the mentioned professional body, or the applicable registration number part of the bidder's tender documents.
- Complete, sign and submit SBD forms, SBD 4, SBD 6.1 and SBD 6.2 which form part of the tender document.
- Bidders must attend the compulsory site briefing as indicated above:
  - The attendance register must be completed and will be used as proof of attendance.
  - Tenderers that do not attend the compulsory site meeting will be disqualified. The representative attending the compulsory site briefing may only attend on behalf of one bidding enterprise and/or Joint Venture/Consortium/Trust.
- In the case of joint ventures and consortia, a detailed signed agreement must be attached as part of tender submission. They must specify on the agreement what each party is entitled.

#### **OTHER KEY RETURNABLES:**

- Tax compliance status pin (A consortium or joint ventures (Including unincorporated consortia) must submit a consolidated Tax status pin of each partner in the consortium or joint ventures (Including unincorporated consortia).
- Registration Documents of the business with the Companies and Intellectual Property Commission (CIPC) OR Master of the High Court in South Africa
- ID copies of company members and shareholders.
- CSD summary report or CSD registration number

## **FUNCTIONALITY EVALUATION:**

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

<b>FUNCTIONALITY CRITERIA</b>			
<p>Bidders MUST complete B1 forms attached in the bid document for key personnel and MUST clearly indicate road maintenance / construction experience, project description, duration and contactable references. Foreign qualifications must be accompanied by SAQA evaluation letter / certificate</p> <p>CVs will not be considered</p>	<p>Company experience in Road Marking.</p> <p>(Practical completion certificates, take over certificates and reference / recommendation letters will not be considered. Failure to submit required completion certificates will result in the bidder getting zero points)</p>	<p>Project plan and Quality Control Plan</p> <p>(Failure to submit relevant documents (including relevant attachments) will result in the bidder getting zero points)</p>	<p>(Failure to submit proof of bank rating from the relevant bank will result in the bidder getting zero points)</p>
<p><b>Site Agent:</b> with a Diploma as a minimum qualification in Civil Engineering with relevant experience in the maintenance and / or construction of roads: <b>(Max 10 points)</b></p> <ul style="list-style-type: none"> <li>• 5 years or more experience <b>(10 points)</b></li> <li>• 3 to less than 5 years' experience <b>(7 points)</b></li> <li>• 1 to less than 3 years' experience <b>(5 points)</b></li> <li>• 0 to less than 1 years' experience <b>(0 points)</b></li> </ul> <p><b>Safety Officer:</b> The Traffic Safety Officer with road maintenance and / or construction experience will be assessed as follows: <b>(Max 10 points)</b></p> <p><b>Experience:</b></p> <ul style="list-style-type: none"> <li>• 5 years or more experience <b>(10 points)</b></li> <li>• 3 to less than 5 years' experience <b>(7 points)</b></li> <li>• 1 to less than 3 years' experience <b>(5 points)</b></li> <li>• 0 to less than 1 years' experience <b>(0 points)</b></li> </ul> <p><b>Foreman</b> with relevant road maintenance and / or construction supervisory experience: <b>(Max 10 Points)</b></p> <p><b>Experience:</b></p> <ul style="list-style-type: none"> <li>• 5 years or more experience <b>(10 points)</b></li> <li>• 3 to less than 5 years' experience <b>(7 points)</b></li> <li>• 1 to less than 3 years' experience <b>(5 points)</b></li> <li>• 0 to less than 1 years' experience <b>(0 points)</b></li> </ul>	<p>Previously completed projects not older than 15 years <b>must clearly indicate road marking</b> as part of the scope with contactable references. The certificate must be signed by the client or the client representative. <b>(Max 40 points)</b></p> <ul style="list-style-type: none"> <li>• 3 or more projects completed: <b>(40 points)</b></li> <li>• 2 projects completed: <b>(30 points)</b></li> <li>1 project completed: <b>(20 points)</b></li> <li>• 0 project completed: <b>(0 points)</b></li> </ul>	<p><b>Project Plan: (Max 10 points)</b></p> <p>Briefly outline project plan indicating time allocations, milestones, cost predictions and resources related to road marking.</p> <ul style="list-style-type: none"> <li>• Work program and sequence of activities <b>(5 points)</b></li> <li>• Resources required and how they will be utilised (include all equipment that will be utilised)</li> </ul> <p><b>(5 points)</b></p> <p><b>Quality Control Plan: (Max 10 points)</b></p> <p>Briefly outline quality control procedure plan indicating:</p> <ul style="list-style-type: none"> <li>• Calibration process and procedure (Attach evidence of previous calibration) <b>(4 points)</b></li> <li>• Testing processes (Attach evidence of previous tests done) <b>(4 points)</b></li> <li>• spray sheets (Attach evidence of previous spray sheets per work done) <b>(2 points)</b></li> </ul>	<p>Rating A or B: <b>(10 points)</b></p> <p>Rating C: <b>(7 points)</b></p> <p>Rating D: <b>(5 points)</b></p> <p>Rating E to H: <b>(0 points)</b></p>

## **PRICE AND PREFERENCE POINT SYSTEM EVALUATION:**

The Department will apply the 90/10 preference point system in accordance with Regulation 5 of the Preferential Procurement Regulations, 2022 (as published in the Government Gazette No. 47452 on 04 November 2022), effective from 16 January 2023.

and

The Department will apply the 80/20 preference point system in accordance with Regulation 4 of the Preferential Procurement Regulations, 2022 (as published in the Government Gazette No. 47452 on 04 November 2022), effective from 16 January 2023.

**The points will be allocated as follow:**

PREFERENCE POINT SYSTEM	POINTS	POINTS
Price	90	80
Specific Goals (refer to requirements below)	10	20
<b>Total points for Price and Preference Points</b>	<b>100</b>	<b>100</b>

Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest acceptable tender will be used to determine the accurate system once tenders are received.

### **Specific Goals Requirements:**

To qualify for Specific Goal points, Bidders must provide evidence of ownership of 51% or more per the specified Historically Disadvantaged Individuals (HDI) categories. Bidders must submit verifiable documentation as proof to claim the Preference Points.

**Bidders who fail to submit valid B-BBEE credentials will forfeit their preference points.**

SPECIFIC GOALS	PROOF OF EVIDENCE	10 POINTS	20 POINTS
Race	The bidder must submit a valid B-BBEE Certificate or Sworn Affidavit with at least 51% black ownership to claim points.	1	1
Women	The bidder must submit a valid B-BBEE Certificate or Sworn Affidavit with at least 51% owned by women to claim points.	3	7
Youth	The bidder must submit a valid B-BBEE Certificate or Sworn Affidavit with at least 51% owned by youth and copies of Identity Documents for Directors to claim points.	2	5
Disability	The bidder must submit a valid B-BBEE Certificate or Sworn Affidavit. In case of a sworn affidavit, bidder must submit a copy of a valid Medical Certificate signed by a Medical Practitioner to claim points	1	3
Bidder must be located within Gauteng Province	The bidder must submit a copy of a municipal rates & taxes invoice or statement not older than 3 months in the name of the Bidder or	2	2

	proof of lease agreement in the name of the Lessee signed by both parties. In case the company operates at the director's property, bidder must submit a copy of a signed lease agreement in the name of a lease.		
B-BBEE status level contributors from level 1 to 4 which are QSE or EME	The bidder must submit a valid B-BBEE Certificate or Sworn Affidavit to claim points	1	2

**Guidance on valid B-BBEE Certificates and/or valid Sworn Affidavits to substantiate preference points claims**

- Valid B-BBEE Certificate issued by a SANAS accredited agency.
- Bidders qualifying as EME/QSE can submit a valid Sworn Affidavit (DTIC) or B-BBEE Certificate issued by the Companies & Intellectual Property Commission (CIPC) on behalf of the DTIC, which serves as an Affidavit.
- Any Consortium or JV must submit a valid consolidated B-BBEE Certificate issued by a SANAS accredited agency. No sworn affidavit will be accepted for a Consortium or JV.
- The Department is requesting the B-BBEE credentials in order to validate and evaluate the points claimed by the Bidder based on the Specific Goals outlined on SBD 6.1.

**NB:** The submission of a fraudulent B-BBEE certificate will result in the bidder being disqualified and criminal proceedings being instituted against the bidder. The bidder, the shareholders and / or directors will further be restricted from doing business with any organ of the state for a maximum period of 10 years.

**Bidders should note the following:**

- Functionality will be scored out of 100 points.
- Where the proposed prices of critical materials to be supplied to the Department are considerably less than the expected market price or rates, the Department reserves the right to verify the proposed prices by requesting quotations from the supplier(s) cited in the compilation of the bid.
- Potential suppliers must note that in terms of Departmental policy, the Department reserves the right to cancel a contract and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.
- The bid validity period is ninety (90) days. However, the Department reserves the right to request all bidders to extent such validity period should the need arise.
- The successful bidder will be required to enter into a formal contract with the Department. Such contract will be governed in terms of the General Conditions of Contract dated 2015.
- The Department will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any testing necessary to demonstrate that aspect of the offer complies with requirements.
- Tenderers who are listed in the National Treasury's register of defaulters and restricted suppliers will be disqualified.
- Appointed bidders will be required to submit 10% guarantees within 14 days from the day of appointment.
- The department will conduct a detailed risk assessment on recommended bidders.

**NB: Potential suppliers must note that in terms of departmental policy, the Department reserves the right to cancel and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.**

### **Correspondence**

- For the availability of the bid document and technical specification enquiries contact Supply Chain Management (SCM) on the following e-mail: [drtscmbidadmin@gauteng.gov.za](mailto:drtscmbidadmin@gauteng.gov.za)
- Bidders to expect responses within 7 days prior to the closing date.
- Bidders are not allowed to initiate communication with the Department after the closing date.
- Bidders must regularly check, ePortal and Departmental Websites for publication of responses and other communication.

### **Tender Documents**

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

Tender documents will be available for collection by prospective bidders upon presentation of the appropriate proof of payment to the Department. **These documents can be collected at ground floor Life Centre Building, at 45 Commissioner Street, Johannesburg between 09h00 and 15h00.** Tender documents will be available from: 03 November 2023.

### **OR Alternatively**

Prospective bidders can download and print their own version of the tender document at no cost (free of charge) by accessing the e-Tender Publication Portal website ([www.etenders.gov.za](http://www.etenders.gov.za)). Bidders are advised to ensure that all bid documents are properly bound upon submission on the closing date. Failure to submit all the required pages of the Bid Document may result in the bidder either being disqualified or forfeiting the available points on functionality, depending on the nature of the submission.

### **Bid Submission**

Electronic submission of bids will **NOT** be accepted.

Telegraphic, telephone, CDs USBs, telex, facsimile, emails of bids and late bids will **NOT** be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of bids are stated in the bid documents.

The Department reserves the right to cancel **OR** not to award this tender to any party.

**Clearly numbered Bid Documents together with all applicable attachments must be deposited in the tender box at the foyer at ground floor Life Centre Building, at 45 Commissioner Street, Johannesburg, by no later than 11H00 on the closing date indicated above.**



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### **Part T1.2 Tender Data**

The conditions of tender are the Standard Conditions of Tender as contained in Annexure F of the CIDB Standard for Uniformity in Construction Procurement (June 2009). (See [www.cidb.org.za](http://www.cidb.org.za)).

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

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

Clause number	Tender Data
F1.1	The employer is the <b>Department of Roads and Transport, Chief Directorate Maintenance of the Gauteng Provincial Government, Private Bag X83, Marshall Town.</b>
F1.2	<p>The Tender Documents issued by the employer comprise the following documents:</p> <p><b>THE TENDER</b></p> <p><b>Part T1: Tendering procedures</b></p> <p>T1.1 - Tender notice and invitation to tender</p> <p>T1.2 - Tender data</p> <p><b>Part T2: Returnable documents</b></p> <p>T2.1 - List of returnable documents</p> <p><b>THE CONTRACT</b></p> <p><b>Part C1: Agreements and Contract data</b></p> <p>C1.1 - Forms of offer and acceptance</p> <p>C1.2 - Contract data</p> <p>C1.3 - Other Contract Forms</p> <p><b>Part C2: Pricing data</b></p> <p>C2.1 - Pricing instructions</p> <p>C2.2 - Bill of Quantities</p> <p><b>Part C3: Scope of work</b></p> <p>C3 - Scope of work</p> <p><b>Part C4: Site information</b></p> <p>C4 - Site information</p> <p><b>Part C5 : Annexures</b></p>
F2.1	<p>Only those Tenderers who are registered with the CIDB at the closing date for submission of tenders, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a Category A class of construction work are eligible to submit tenders.</p> <p>Joint Ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> <li>1. Every member of the joint venture is registered with the CIDB at the closing date for tender.</li> <li>2. The lead partner has a contractor grading designation in the <b>6 SK</b> or higher class of construction work.</li> <li>3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a <b>7SK and / or 8SK</b> class or higher of construction work</li> </ol>
F2.7	The arrangements for a <b>compulsory clarification meeting</b> are as outlined in the published <b>“Tender Notice and Invitation to Tender”</b> .
F2.12	No alternative tenders will be considered.
F2.13.1	Tenderers are to submit one tender only, either as a single tendering entity or as a member of a Joint Venture.

Clause number	Tender Data
F2.13.3	Each tender offer communicated on paper shall be submitted as an original.
F2.13.4	Submit only the signed original tender
F2.13.5 F2.15.1	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p><b>Location of tender box:</b> Foyer of Life Centre Building  <b>Physical address:</b> 45 Commissioner Street, Johannesburg.  <b>Identification details:</b> <b>TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE and the closing date and time of the tender.</b></p>
F2.13.6	A two-envelope procedure will not be followed.
F2.15	<p>The closing time for submission of tender offers is as stated in the <b>published “Tender Notice and Invitation to Tender”</b>.</p> <p><b>No telegraphic, telephonic, telex, facsimile or electronic tender offers will be accepted.</b></p>
F2.16	The tender offer validity period is 90 days.
F2.20	<b>The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Form of Guarantee to the format included in C1.3.2 of this procurement document.</b>
F2.23	The tenderer is required to comply and submit the documents outlined in the <b>published “Tender Notice and Invitation to Tender”</b> .
F2.24	The tenderer must be cognisant of paragraph <b>“<u>Bidders should note the following</u>”</b> of the <b>published “Tender Notice and Invitation to Tender”</b>
F3.11.3	The tenderer must be cognisant of the functionality criteria in respect of road marking as outlined in paragraph <b>“<u>FUNCTIONALITY EVALUATION</u>”</b> of the <b>published “Tender Notice and Invitation to Tender”</b>
F3.13.1	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> <li data-bbox="371 1507 1440 1619">The tenderer submits a <b>valid</b> Tax Clearance Certificate in the name of the tendering entity as issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;</li> <li data-bbox="371 1641 1440 1709"><b>The proposed Guarantor must complete the Form of Intent to provide a Guarantee to the tenderer on the format included in Part T2.2 of this procurement document</b></li> <li data-bbox="371 1731 1440 1799">The tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation.</li> <li data-bbox="371 1821 1440 1933">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;</li> <li data-bbox="371 1956 1440 2046">The tenderer has not: <ul style="list-style-type: none"> <li data-bbox="403 1978 1440 2046">abused the Employer's Supply Chain Management System; or</li> </ul> </li> </ol>

<b>Clause number</b>	<b>Tender Data</b>
	<ul style="list-style-type: none"> <li data-bbox="409 233 1441 300">ii) failed to perform on any previous contract and has been given a written notice to this effect.</li> <li data-bbox="371 309 1441 435">f) Has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract.</li> <li data-bbox="371 467 1441 534">g) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer.</li> <li data-bbox="371 565 1441 664">h) The employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014 (as amended), issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</li> </ul>

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## **Part T2.1 List of Returnable Documents**

### **1 Documents required for tender administrative purposes**

- Compulsory Enterprise Questionnaire
- Record of Addenda to Tender Documents
- Proposed Amendments and Qualifications
- Certificate of Authority
- Schedule of Proposed Subcontractors
- Schedule of recently completed and current contracts
- Schedule of plant and equipment
- Occupational Health and Safety Act: Statement by Tendering Entity
- Experience of Key Staff and number of Staff employed
- Tenderer's Bank Details
- Schedule of Tenderer's Litigation History
- Schedule of Special Materials

### **2 Returnable Schedules required for tender evaluation purposes**

The tenderer must complete the following returnable documents:

- Tax Clearance Certificate for Tenders
- Registration with Construction Industry Development Board
- SBD 4: Declaration of Interest

### **3 Returnable Schedules that will be used for tender evaluation purposes and be incorporated into the contract**

- B-BBEE Verification Certificate / Sworn Affidavit
- SBD 4: Declaration of Interest
- SBD 6.1: Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2022
- Form of Intent to Provide a Form of Guarantee
- Certificate of Insurance Cover

### **4 C1.1 Forms of Offer and Acceptance**

### **5 C1.2 Contract Data**

### **6 C2.2 Bill of quantities**



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### Compulsory Enterprise Questionnaire

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

**Section 1: Name of enterprise:** .....

**Section 2: VAT registration number, if any:** .....

**Section 3: CIDB registration number, if any:** .....

**Section 4: Particulars of sole proprietors and partners in partnerships (attach certified ID Copies)**

Name*	Identity number*	Personal income tax number*

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

**Section 5: Particulars of companies and close corporations**

Company registration number .....

Close corporation number .....

Tax reference number .....

**Section 6: Record in the service of the state**

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

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

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

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

\*insert separate page if necessary

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

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

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

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

\*insert separate page if necessary

---

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

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

---

Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

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



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## **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.		

Attach additional pages if more space is required.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

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



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## **Certificate of Authority**

This Returnable Schedule is to be completed by the tendering entity.

I/We, the undersigned, are submitting this tender offer and hereby authorise Mr/Ms .....  
....., authorised signatory of the company .....  
....., acting in the capacity of .....  
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
CIDB registration number: .....		Signature..... Name ..... Designation
CIDB registration number: .....		Signature..... Name ..... Designation
CIDB registration number: .....		Signature..... Name ..... Designation



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## **Schedule of Proposed Subcontractors**

- Sub-contracting is not applicable**



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## **Schedule of recently completed contracts**

**List not more than seven contracts completed in the last five years**

Contract title:	Employer (name) Place (town)	Reference person		Contract Amount (R million)	Contract Period (months)	Date of Completion*
		Name	Tel			
1						
2						
3						
4						
5						
6						
7						

\*Completed means that a certificate has been issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding.

**List of all contracts not completed at the time of tender submission**

Project:	Employer (name) Place (town)	Reference person		Contract Amount (R million)	Contract Period (months)	Date of commencement	Date of expected Completion*
		Name	Tel				
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

\*Date when defects liability period commenced

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

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



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## 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. **(Attach vehicle registration documents as proof of ownership)**

**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.  
**(Attach a letter of intent from Rental Companies)**

**Attach additional pages if more space is required.**

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

*Tenderer*



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## **Occupational Health and Safety Act: Statement by Tendering Entity**

I, ..... duly authorised

to represent ..... (company name)

in my capacity as ..... hereby confirm that I accept full and exclusive responsibility for compliance by myself and all persons who perform work for me with the provisions of the Occupational Health and Safety Act, No. 85 of 1993 (as amended) and all regulations promulgated from time to time, whilst performing work on .....

.....  
I confirm that all employees who perform work on the site shall be properly trained to do this in a manner which is safe and without risk to health and safety to themselves and others in the vicinity and undertake to have our activities adequately supervised in the interest of health and safety.

---

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

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

*Tenderer* .....  
.....



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## **Experience of Key Staff and Number of Staff Employed**

Attach a proof of SACPCMP registration for Construction Health and Safety Officer or provide a registration number. Attach copies of qualifications for Site Agent as outlined on the functionality criteria:

1. Site Agent:
2. Construction Health and Safety Officer:
3. Foreman:

**NB: CVs will not be considered. Bidders must duplicate the table provided on page 25 – 27 in case more space is required**



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### **Schedule of Key Staff**

#### **B1 Site Agent**

NAME	DATE OF BIRTH	QUALIFICATION

Note1:

- List only the projects that the tenderer considers relevant to the specified scope of works. **Duplicate this page if more lines are required.**

#### **Technical/Managerial Experience**

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



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**Schedule of Key Staff**

**B1 Construction Health and Safety Officer**

NAME	DATE OF BIRTH	SACPCMP REGISTRATION NUMBER

Note1:

- List only the projects that the tenderer considers relevant to the specified scope of works. **Duplicate this page if more lines are required.**

**Technical/Managerial Experience**

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



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### **Schedule of Key Staff**

#### **B1 Foreman**

NAME	DATE OF BIRTH

Note1:

- List only the projects that the tenderer considers relevant to the specified scope of works. **Duplicate this page if more lines are required.**

### **Technical/Managerial Experience**

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



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## **Tenderer's Bank Details**

### **Notes to tenderer:**

1. The tenderer shall attach to this form a letter from the bank at which he declares he conducts his account. The contents of the bank's letter must state the *credit rating* that it, in addition to the information required below, accords to the tenderer for the business envisaged by this tender as well as the working capital at the disposal of the tenderer. Failure to provide the required letter with the tender submission may render the tenderer's offer unresponsive in terms of tender condition F.3.8.
2. The tenderer's banking details as they appear below shall be completed.
3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.

The tenderer shall provide the following:

- i) Name of Account Holder: .....
- ii) Account Number: .....
- iii) Bank name: .....
- iv) Branch Number: .....
- v) Bank and branch contact details .....
- .....
- (vi) Bank Rating: .....

A large, empty rectangular box intended for a bank stamp or a handwritten signature.

Bank Stamp

SIGNED BY TENDERER: .....



## **TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

### **Project Plan**

Briefly outline: project plan indicating time allocations, milestones, cost predictions and resources related to road marking

- Work program and sequence of activities
- Resources required and how they will be utilised

### **Quality Control Procedures**

Briefly outline: quality control procedure plan indicating:

- Calibration process and procedure (Attach evidence of previous calibration done)
- Testing processes (Attach evidence of previous tests done)
- Spray sheets (Attach evidence of previous spray sheets per work done)



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### **Schedule of Tenderer's Litigation History**

**Note to tenderer:**

The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, and the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

Employer	Other litigating party	Dispute	Award value	Date resolved

SIGNED BY TENDERER: .....



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**Schedule of Special Materials**

**Notes to tenderer:**

1. Refer to Particular Condition of contract amending sub clause 13.8 of the General Conditions of Contract.
2. Only net bitumen content of asphalt and bituminous products shall be subject to rise and fall and no account shall be taken of transport, emulsifiers, diluents or modifiers that may be supplied ex refinery or added later.
3. For the purpose of clarity when using this form, a supplier is any company (including refineries) that supplies to a tenderer a bituminous product that it manufactures using bitumen as the sole or blended ingredient in the product. A tenderer shall, in compliance with note 4 below, attach to this form a letter of supply from each supplier it intends using in the performance of the contract.
4. Tenderers shall append to this page the following information on a letterhead from their selected supplier:
  - The supplier's company registration and address details; and
  - The product range available including refinery from which the base bitumen is drawn; and
  - The net base bitumen type and content for each product; and
  - The supply price (excluding VAT but including all other obligatory taxes and levies) to the tenderer for the net bitumen base content of each product; and
  - The date from which the supply prices apply.
5. Rise and fall adjustments shall only be made upon receipt by the engineer of the appropriate letters of supply in compliance to note 4 above, but with the changed supply prices and date of application, as well as reasons for the changes.
6. A change of supplier may be permitted, but only upon application to the engineer with the appropriate letters of supply in compliance to Note 4 above and approval thereof.
7. Non-disclosure of reduction in supply prices shall be deemed a contractor's deliberate action to defraud the Employer and grounds for the Employer, at its sole discretion, to terminate the contract.

Each material dealt with as a special material in terms of clause 4 of the Contract Price Adjustment Schedule of the Appendix to the Particular Conditions of Contract as amended by the Particular Conditions is stated in the list below. The rates and prices for the special materials shall be furnished by the tenderer as an attachment to this Form, which rates and prices shall not include VAT but shall include all other obligatory taxes and levies.

SPECIAL MATERIAL	UNIT*	NAME OF SUPPLIER AND RATE OR PRICE FOR THE BASE MONTH
Bitumen (Net bitumen content)	Ton	As stated on supplier's letter attached to this form

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

SIGNED ON BEHALF OF THE TENDERER: .....



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## **Tax Clearance Certificate for Tenders**

The tenderer is to affix to this page:

Bidders must submit their SARS TCS PIN number and CSD Supplier number with their bid in order that the bidder's Tax Compliance Status can be verified. Should a bidder not be Tax Compliant at the time of verification, the bidder will be notified in writing of their non-compliant tax status and be requested to remediate their tax status within seven (7) working days.

Failure to provide written proof of tax status remediation, within seven (7) working days of notification, will result in the rejection of the bid submitted by the Bidder.

**Note:**

**This certificate must still be valid on the closing date of this tender.**



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## **Form of Intent to Provide a Form of Guarantee**

- 1 With reference to the tender of ..... (hereinafter referred to as the "**TENDERER**" for the project ..... (hereinafter referred to as the "**CONTRACT**" for the DEPARTMENT OF ROADS AND TRANSPORT of the Gauteng Provincial Government, (hereinafter referred to as the "**EMPLOYER**" for the tender dated ..... for the offered total of prices of (R.....) ..... (in words))
- 2 I/We ..... in my/our capacity as ..... and hereby representing ..... (hereinafter referred to as the "**GUARANTOR**" advice that the "**GUARANTOR**" undertakes to provide a **Form of Guarantee** to the **EMPLOYER** to the Employer's format included in Part C1.3 of this document within five (5) working days of the written acceptance of the contractor's tender offer.

Thus done and signed at ..... on .....

.....  
*Name of signatory*

.....  
*Capacity of authorised signatory*

.....  
*As witness*

.....  
*for and on behalf of the **Guarantor**  
who by signature hereof warrants  
authorisation hereto*



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## **Registration with Construction Industry Development Board**

The tenderer for the Road Marking Contract must provide:

- Proof of registration with the CIDB as a Category **7SK / 7CE** or higher for the bills in the Benoni, Bronkhorstspruit, Pretoria and Vereeniging Regions.
- Proof of registration with the CIDB as a Category **8SK / 8CE** or higher for the bills in the Krugersdorp Region.

**Note:**

1. **Failure to provide such proof will result in this tender not being further considered for the award of the contract.**
2. **In the case of a joint venture, a consolidated CIDB registration certificate must be attached.**



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### **Certificate of Insurance Cover**

**Note to tenderer:**

**In the event of the tenderer being a joint venture/consortium, the details of the individual members must also be provided.**

The tenderer shall provide the following details of this insurance cover:

- i) Name of Tenderer: .....
- ii) Period of Validity: .....
- iii) Value of Insurance:
  - Insurance for Works and Contractor's Equipment  
Company: .....
  - Value: .....
  - Insurance for Contractor's Personnel  
Company: .....
  - Value: .....
  - General public liability  
Company: .....
  - Value: .....
  - SASRIA  
Company: .....
  - Value: .....

SIGNED BY TENDERER: .....



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## **SBD 4**

### **BIDDER'S DISCLOSURE**

#### **1. PURPOSE OF THE FORM**

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

#### **2. BIDDER'S DECLARATION**

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>1</sup> in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

---

<sup>1</sup> the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES / NO**

2.2.1 If so, furnish particulars:

.....  
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES / NO**

2.3.1 If so, furnish particulars:

.....  
.....

### 3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor.

However, communication between partners in a joint venture or consortium<sup>2</sup> will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

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

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of bidder

---

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



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**Returnable Schedules that will be used for tender evaluation purposes**

### **Tenderer's B-BBEE Verification Certificate / Sworn Affidavit**

**Notes to tenderer:**

**Guidance on valid B-BBEE Certificates and/or valid Sworn Affidavits to substantiate preference points claims**

- Valid B-BBEE Certificate issued by a SANAS accredited agency
- Bidders qualifying as EME/QSE can submit a valid Sworn Affidavit (DTIC) or B-BBEE Certificate issued by the Companies & Intellectual Property Commission (CIPC) on behalf of the DTIC, which serves as an Affidavit
- Consortium or JV must submit a valid consolidated B-BBEE Certificate issued by a SANAS accredited agency. No sworn affidavit will be accepted for a Consortium or JV.
- The Department is requesting the B-BBEE credentials in order to validate and evaluate the points claimed by the Bidder based on the Specific Goals outlined in this tender document and the SBD 6.1.

**NB:** The submission of a fraudulent B-BBEE certificate will result in the bidder being disqualified and criminal proceedings being instituted against the bidder. The bidder, the shareholders and / or directors will further be restricted from doing business with any organ of the state for a maximum period of 10 years

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**SBD 6.1**

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

**NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022**

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The applicable preference point systems for this tender are 80/20 and 90/10. Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest acceptable tender will be used to determine the accurate point system once tenders are received.

1.3 Points for this tender shall be awarded for:

- (a) Price
- (b) Specific Goals.

1.4 The maximum points for this tender are allocated as follows:

AREA POINTS	POINTS (80/20)	POINTS (90/10)
Price	80	90
Preference Point – Specific Goals	20	10
<b>Total points for Price and Preference Points</b>	<b>100</b>	<b>100</b>

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

## 2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“specific goals”** means specific goals as contemplated in section 2(1)(d) of the Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender and disability including the implementation of programmes of the Reconstruction and Development Programme as published in Government Gazette No. 16085 dated 23 November 1994;
- (f) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

### 3.1. POINTS AWARDED FOR PRICE

### 3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

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

Where

Ps = Points scored for price of tender under consideration

Pt      =      Price of tender under consideration

Pmin = Price of lowest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
  - (a) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,  
then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Race	1	
Woman	7	
Youth	5	
Disability	3	
Bidder must be located within Gauteng Province	2	
B-BBEE status level 1 to 4 which are QSE or EME	2	

**Table 2: Specific goals for the tender and points claimed are indicated per the table below.**

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Race	1	
Woman	3	
Youth	2	
Disability	1	
Bidder must be located within Gauteng Province	2	
B-BBEE status level 1 to 4 which are QSE or EME	1	

#### **DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3. Name of company/firm.....

4.4. Company registration number: .....

#### **4.5. TYPE OF COMPANY/ FIRM**

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

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

- (a) disqualify the bidder from the tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

.....  
**SIGNATURE(S) OF TENDERER(S)**

**SURNAME AND NAME:** .....

**DATE:** .....

**ADDRESS:** .....

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SBD 6.2**

**DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS**

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

**1. General Conditions**

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand  
y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

**The SABS approved technical specification number SATS 1286:2011 is accessible on <http://www.thedti.gov.za/industrial development/ip.jsp> at no cost.**

1.6 A bid may be disqualified if –

- (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
- (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

## **2. Definitions**

2.1. “**bid**” includes written price quotations, advertised competitive bids or proposals;

2.2. “**bid price**” price offered by the bidder, excluding value added tax (VAT);

2.3. “**contract**” means the agreement that results from the acceptance of a bid by an organ of state;

2.4. “**designated sector**” means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;

2.5. “**duly sign**” means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).

2.6. “**imported content**” means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

2.7. “**local content**” means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;

2.8. “**stipulated minimum threshold**” means that portion of local production and content as determined by the Department of Trade and Industry; and

2.9. “**sub-contract**” means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods threshold.</u>	<u>Stipulated minimum</u>
-----	-----%
-----	-----%
-----	-----%

### Valves

4. Does any portion of the services, works or goods offered have any imported content?  
(*Tick applicable box*)

YES		NO	
-----	--	----	--

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on [www.reservebank.co.za](http://www.reservebank.co.za).

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

<b>Currency</b>	<b>Rates of exchange</b>
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?  
(***Tick applicable box***)

YES		NO	
-----	--	----	--

5.1. If yes, provide the following particulars:

- (a) Full name of auditor:.....
- (b) Practice number: .....
- (c) Telephone and cell number:.....
- (d) Email address: .....

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

**LOCAL CONTENT DECLARATION**  
**(REFER TO ANNEX B OF SATS 1286:2011)**

**LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)**

**IN RESPECT OF BID NO. ....**

**ISSUED BY:** (Procurement Authority / Name of Institution):  
.....

**NB**

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on [http://www.thdti.gov.za/industrial\\_development/ip.jsp](http://www.thdti.gov.za/industrial_development/ip.jsp). Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ..... (full names), do hereby declare, in my capacity as ..... of .....(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

- (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (ii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

**If the bid is for more than one product, the local content percentages for each**

**product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.**

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 1** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 2** \_\_\_\_\_

**DATE:** \_\_\_\_\_

## Part C1 Agreements and Contract Data

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## **C1.1 FORMS OF OFFER AND ACCEPTANCE**

### **C1.1.1 FORM OF OFFER**

Head of Department  
Department Of Roads and Transport  
Private Bag X83  
Marshalltown  
2107

Sir,

### **TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

I/we, by signing this part of the forms of offer and acceptance, confirm that I/we practise the principles of corporate governance that abhors corruption and fraud and that I/we have examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules and am/are duly authorised to represent and commit the tenderer to the contractual obligations contained therein.

I/we further confirm that by submitting this offer the tenderer accepts the conditions of tender and 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 tender and the conditions of contract identified in the contract data.

THE OFFERED TOTAL OF THE PRICES (INCLUSIVE OF VALUE ADDED TAX) IS;

Benoni Bill A: .....  
.....(in words)  
(R ..... in figures)

Bronkhorstspruit Bill B: .....  
.....(in words)  
(R ..... in figures)

Krugersdorp Bill C: .....  
.....(in words)  
(R ..... in figures)

Pretoria Bill D: .....  
.....(in words)  
(R ..... in figures)

Vereeniging Bill E: .....  
.....(in words)  
(R ..... in figures)

You may accept this offer by signing and returning to the tenderer one copy of the Form of acceptance before the end of the period of validity stated in the tender data, (or at the end of any agreed extension thereof), whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Notwithstanding anything contained in a covering letter to this tender, I/we declare this offer is submitted entirely without variations or deviations other than those stipulated in the form for Proposed Amendments and Qualifications by the tenderer and that it is made free from any fraud, corruption and misrepresentation.

Yours faithfully

SIGNATURE: ..... DATE: .....

NAME (IN CAPITALS): .....

CAPACITY: .....

Date and minute reference of Board resolution if different from returnable document: Certificate of Authority

Certificate of Authority for signature .....

NAME AND ADDRESS OF ORGANISATION: .....

.....  
NAME AND SIGNATURE OF WITNESS:

SIGNATURE: ..... DATE: .....

NAME (IN CAPITALS): .....

## C1.1.2 FORM OF ACCEPTANCE

To \_\_\_\_\_

\_\_\_\_\_  
**(Name of successful tenderer)**

Dear Sir / Madam,

### **TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

1. It is our pleasure to inform you that the Department of Roads and Transport (the Employer) accepts your offer. (I.e. including VAT but excluding CPA, and any contingent sum not in the priced schedule).

Benoni Bill A: .....

.....(in words)  
(R ..... in figures)

Bronkhorstspruit Bill B: .....

.....(in words)  
(R ..... in figures)

Krugersdorp Bill C: .....

.....(in words)  
(R ..... in figures)

Pretoria Bill D: .....

.....(in words)  
(R ..... in figures)

Vereeniging Bill E: .....

.....(in words)  
(R ..... in figures)

2. The amount due may not be the accepted price but payment shall be made in accordance with the conditions of contract identified in the contract data.
3. Acceptance shall form an agreement between us according to the terms and conditions contained in this form and in the contract that is comprised of:

Part C1: Agreements and Contract Data (including this form of acceptance),  
Part C2: Pricing Data,  
Part C3: Scope of the Work,  
Part C4: Site Information, and  
Part C5: Annexures

together with issued drawings and other documents, or parts thereof, which may be incorporated by reference into the Parts listed above.

- a) Deviations and/or variations included in your offer as well as any changes to the terms of the offer agreed by us during the process of offer and acceptance shall not be valid unless contained in the appended schedule of deviations. (*If no deviation state "There are no deviations, variations or*

changes to the documents.) Addenda issued during the tender period are deemed not to be deviations to the tender documents and schedules.

b) Within 14 calendar days of the date of this form of acceptance (including the schedule of deviations if any) you shall deliver to the Employer:

- Performance Security (per clause 4 of the FIDIC Conditions of Contract) a proforma of which is attached for your reference. The 10% calculation shall be based on the accepted contract value as contained in this form and there shall be no deviations from the wording of the proforma guarantee.
- Proof of insurance in terms of the information provided in the contract data and clause 18 of the FIDIC Conditions of Contract. Proof of currency of insured cover shall be provided on a monthly basis until contract completion.
- Proof that the contract has been registered by the Department of Labour in terms of Occupational Health and Safety legislation, for which purpose the relevant forms have already been partially completed by the Employer and attached hereto.
- The completion of the attached Employer's Form of Banking Details.

Failure to fulfil any of these obligations shall constitute a repudiation of this agreement.

4. The effective date of the contract shall be the date of this form of acceptance unless you, within seven (7) calendar days of the effective date, notify the Employer in writing of any justification why you cannot accept the contents of this agreement.
5. The commencement date of the contract shall be that on which the site hand-over meeting is held, which shall not be later than .... (*Usually 28 calendar days after the date of this form, or earlier if circumstances demand and as agreed between tenderer/Employer*).
6. Notwithstanding that a full, original-signed copy of the contract document containing all contract data and schedules (including that of accepted deviations) will be delivered to you, this form of acceptance constitutes the binding contract between us.

Signature ..... Date .....

Name .....

Capacity .....

**for the Employer**      Department of Roads and Transport  
                                    Chief Directorate Maintenance

Name and Surname.....

Signature of  
Witness ..... Date .....

### **C1.1.3 APPENDIX TO FORM OF ACCEPTANCE**

#### Schedule of deviations

1. The deviations listed below constitute agreed variations/amendments to the tender data and schedules negotiated between the tenderer and Employer based on information provided in Form A4: Schedule of Variations or deviations by tenderer or conditions imposed by the Employer in its acceptance of the offer.
2. In the event that an alternative offer is accepted in terms of F.2.12 of the Tender Data, it is a fundamental condition of acceptance that all responsibilities and concomitant liabilities arising from the alternative design pass from the Employer to the contractor.
3. Addenda issued during the tender period are deemed not to be variations to the tender.

1.....

2.....

3.....

4 etc .....

## C1.2 CONTRACT DATA

### C1.2.1 CONDITIONS OF CONTRACT

Note to tenderer:

1. The Conditions of Contract for Construction (1999 edition) prepared by the International Federation of Consulting Engineers (FIDIC), as amended, shall apply to this contract. The amendments are those issued by FIDIC and reproduced hereafter, together with additional amendments (particular conditions of contract) as prescribed by The Department of Roads and Transport

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## **PART A: GENERAL CONDITIONS - FIDIC AMENDMENTS**

Up to 1 March 2006 no amendments have been issued by FIDIC.

## **PART B: PARTICULAR CONDITIONS OF CONTRACT**

### **Note to tenderer:**

**The following amendments are the Department of Roads and Transport's standard particular conditions to the general conditions and shall apply to this contract.**

The following additional amendments to the FIDIC Conditions of Contract 1999 apply to this contract:

## CONDITIONS OF CONTRACT

### PARTICULAR CONDITIONS AMENDING THE GENERAL CONDITIONS OF FIDIC

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## PARTICULAR CONDITIONS AMENDING THE GENERAL CONDITIONS OF FIDIC

### 1.1 Definitions

#### 1.1.1 The Contract

*Replace 1.1.1.1 with:*

“**Contract**” means the Form of Offer and Acceptance, Contract Data, these Conditions, the Specifications, the Drawings, the Schedules, and the further documents (if any), which are listed in the Form of Offer and Acceptance, and further includes drawings and documents or parts thereof, which any of the aforesaid documents incorporate by reference.”

*Replace 1.1.1.3 with:*

“**Letter of Acceptance**” means the Form of Acceptance as contained in part C1.1.2 of the contract documents.”

*Replace 1.1.1.4 with:*

“**Letter of Tender**” means the Form of Offer as contained in part C.1.1.1 of the contract document.”

*Replace 1.1.1.5 with:*

“**Specification**” means that document entitled Scope of Work, as included in the Contract, and any additions and modifications to the Scope of Work in accordance with the Contract. Such document specifies the Works.”

*Replace 1.1.1.7 with:*

“**Schedules**” means the document(s) completed by the Contractor and submitted with his tender offer, as included in the Contract. Such document(s) may include the Bill of Quantities, data lists and schedules of rates and/or prices.”

*Replace 1.1.1.8 with:*

“**Tender**” means that section of the Form of Offer and Acceptance called ‘Offer’ and all other documents which the Contractor submitted as Returnable Documents, as included in the Contract.”

*Replace 1.1.1.9 with:*

“**Appendix to Tender**” means the completed section entitled C1.2.2 Contract Data – Information provided by the Employer included in the Contract Data.”

*1.1.1.10 - Add the following:*

“**Bill of Quantities**” shall also mean the Pricing Schedule as contained in section C2.2 of the contract document.”

#### 1.1.3 Dates, Tests, Periods and Completions

*Replace 1.1.3.9 with:*

“A “**day**” means a calendar day, except for any extension of time that is granted under sub-clause 8.4, [Extension of Time for Completion], in which case a day means a working day. A “Year” means 365 calendar days”

## 1.1.6 Other Definitions

### 1.1.6.5 "Laws"

*In the 1st line, replace "(or state)" with "(or other spheres of government)" and in the 2nd line, after "other laws", insert "including the South African Common Law".*

*Add the following:*

"1.1.6.10 "Supplementary Agreement" means an agreement between the Employer and the Contractor for executing work, supplemental to the original Contract, which was not contemplated in the original Contract and is also not required for the proper completion of the original Contract."

## 1.2 Interpretation

*Replace the contents of (d) with:*

"The expression "written", "in writing", "notify", "the giving of notice", "giving consent", "as instructed" or "at the request of" means that communication, either hand-written or printed by whatever means, including transmission by telefax or e-mail, and resulting in a permanent record. However, such notice, instruction, consent or request is not deemed to have been delivered by virtue of its appearance in the minutes of meetings."

## 1.5 Priority of Documents

*Replace sub-paragraphs items (a) to (h) with:*

- (a) the Forms of Offer and Acceptance
- (b) the Appendix to Tender within the Contract data
- (c) the Particular Conditions of Contract
- (d) the General Conditions
- (e) the Scope of Works,
- (f) the project Drawings,
- (g) the standard Specifications,
- (h) the standard Drawings, and
- (i) the Schedules and any other documents forming part of the Contract."

## 1.6 Contract Agreement

*Replace the 1st two sentences with the following:*

"The Parties shall enter into a Contract Agreement when the Employer issues the Form of Acceptance (see Particular Condition 1.1.1.3). The Contract Agreement shall be in the form prescribed in the tender documents"

## 1.7 Assignment

*Change the title of this sub-clause to read "Assignment/Cession" and replace its contents with the following:*

"Neither Party shall, without the written consent of the other, assign the contract or any part thereof or any obligation under the Contract or cede any right or benefit thereunder."

## 1.8 Care and Supply of Documents

*In the 1st paragraph, 2nd line, change "two copies" to "one copy".*

*In the 2nd paragraph, 3rd line, change "six" to "two".*

## **2.3 Employer's Personnel**

*In the 1st sentence delete “and the Employer's other contractors”.*

### **3.1 Engineer's Duties and Authority**

*After the 3rd paragraph insert the following:*

“In addition to the actions stipulated in the General Conditions whereby the Engineer shall first obtain the approval of the Employer, the Employer's approval shall also be obtained before taking any action under sub-clauses 8.4, 11.9, 13.3 and 20.1 as amended in these Particular Conditions”.

### **4.2 Performance Security**

*Replace the 2nd paragraph with:*

“The Contractor shall deliver the Performance Security to the Employer within 14 days of the date of issue of the Letter of Acceptance. The Performance Security shall be issued by a bank or insurance company registered or licensed as a bank or insurance company to do business in the Republic of South Africa and approved by the Employer and having an office or banking facility in the Republic of South Africa. The Performance Security shall be subject to approval by the Employer and shall be in the form prescribed in the tender documents or in another form approved by the Employer.”

*In the last line of the last paragraph replace the words “Performance Certificate” with “Taking-Over Certificate”.*

### **4.4 Subcontractors**

*In the first paragraph delete “the whole of the Works” and add “no subcontracting is allowed”.*

### **4.7 Setting Out**

*Amend the second line of the second paragraph to read:*

“.....reference, provided that the Contractor shall provide proof of their inaccuracy before they are used.”

### **4.8 Safety Procedures**

*Add the following sub-paragraph:*

“(f) enter into and execute an agreement as provided for under Section 37(2) of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) and shall comply with all other requirements of Act No 85 of 1993 and Construction Regulations, 2014 (as amended). The agreement in the relevant form shall be prepared at the expense of the Employer.”

### **4.10 Site Data**

*In the 1st paragraph, 1st sentence, replace “prior to the Base Date” with “either as part of or by reference in the Tender Documents or, otherwise, not later than 7 days before the latest date for submission of the Tender Documents”, and delete the 2nd sentence.*

### **4.13 Rights of Way and Facilities**

*Add the following paragraph:*

“The Contractor shall abide by the procedures for the provision of deviation, haul and construction roads, and the requirements for the construction, maintenance and final reinstatement of such roads, all as set out in the standard Specifications.”

#### **4.17 Contractor's Equipment**

*Add the following paragraph:*

"The Contractor shall notify the Engineer, in writing, of the names and addresses of the owners of all major items of equipment not owned by the Contractor."

#### **4.18 Protection of the Environment**

*In the 1st paragraph, 1st sentence add "and shall ensure compliance with all the environmental requirements indicated in part C3 Scope of Work."*

*Add the following paragraph:*

"The Contractor shall indemnify the Employer against any liability arising from or in relation to any of the above matters."

#### **4.19 Electricity, Water and Gas**

*In the 1st paragraph, 1st line, delete "except as stated below", and delete the 2nd and 3rd paragraphs.*

#### **4.20 Employer's Equipment and Free-Issue Material**

*Delete "and Free-Issue Material" from the title of the sub-clause and delete the 3rd and 4th paragraphs.*

#### **4.21 Progress Reports**

*In the 1st paragraph, 2nd line, delete "in six copies".*

#### **4.22 Security of the Site**

*Replace the full stop at the end of sub clause (b) with a comma and continue this clause as follows:*

"... on the Site, or utility or service owners whom the Employer or the Engineer identifies as having also been authorised. Without said notice, the Contractor may refuse access to such utility or service owners; and"

*Add the following sub clause:*

- "(c) The Contractor shall indemnify the Employer against any liability for damage incurred to, or loss of, property within the site identified in the contract documents as not belonging to the Employer regardless of whether or not such damage or loss is caused by the Contractor's equipment."

#### **4.24 Fossils**

*In the 1st paragraph, 1st sentence after "fossils" insert "and graves" and in the 2nd sentence, add "and shall indemnify the Employer against any liability arising from such loss or damage."*

#### **6.5 Working Hours**

*Replace the 1st sentence with the following:*

"No work shall be carried out on Site on Sundays or on any special non-working day stated in the Contract Data or between sunset and sunrise on any day, unless:"

#### **6.7 Health and Safety**

*Replace the 1st paragraph with the following:*

"The Contractor shall provide and maintain on the Site adequate and suitable sanitary and first aid services (including the provision at all times of a person qualified to render medical first aid) and a supply

of potable water for the Contractor's, the Employer's and the Engineer's personnel engaged on the Contract and, if necessary, similar facilities elsewhere for such personnel off the Site."

*Add the following sub-clause:*

### **“6.12 Indemnity by Contractor**

The Contractor shall indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) resulting from:

- (a) the loss of output and delay caused by the slowing down or partial or total stoppage of work caused by:
  - i. all or any of the Contractor's workforce as a result of a dispute between all or any of the Contractor's workforce and the Contractor; or
  - ii. all or any of the Contractor's suppliers' difficulty or impossibility to deliver goods or materials needed to perform the Works;
- (b) any unlawful, riotous or disorderly conduct by or amongst the Contractor's personnel.”

### **8.1 Commencement of Work**

*In the 1st paragraph, delete the 1st sentence, and in the 2nd sentence replace “42 days after the Contractor receives the Letter of Acceptance” with “28 days of the date of issue of the Letter of Acceptance.”*

*In the 2nd line of the 2nd paragraph, after the words “Commencement Date”, insert “but within the period stated in the Contract Data.”*

### **8.4 Extension of Time for Completion**

*Replace the word “Engineer” with “Employer” in the last sentence of the last paragraph.*

### **8.7 Delay Damages**

*Add the following after the first paragraph:*

“The Contractor shall in consultation with the specific regional manager determine the commencement date and the period required to complete a specific work order. Should the Contractor fails to comply he shall pay delay damages to the Employer as stated in the Appendix to Tender.”

*Add the following paragraph:*

“Where stated in the Appendix to tender, the contractor shall be subject to penalties for non-compliances with specified accommodation of traffic road signage identified by the engineer and for each additional day of lane closure needed to complete programmed work sections.”

### **10.2 Taking Over of Parts of the Works**

*Delete the 2nd paragraph.*

*Between the 3rd and 4th paragraphs insert the following paragraph:*

“The Employer may make use of any part of the Permanent Works prior to the issue of a Taking Over-Certificate.”

*Delete the 5th paragraph.*

### **11.9 Performance Certificate**

*In the 1st paragraph, 2nd line and in the 2nd paragraph, 1st line, replace the word “Engineer” with “Employer”.*

*Delete the last sentence of the 2nd paragraph.*

## **11.11 Clearance of Site**

*Replace the 1st paragraph with the following:*

“With the exception of Plant, Materials and Contractor’s Equipment required to complete any outstanding work or to remedy defects or damage as notified by, or on behalf of, the Employer and which Plant, Materials and Contractor’s Equipment have been agreed by the Engineer and the Contractor, the Contractor shall, upon receipt of the Taking-Over Certificate, remove all Contractor’s Equipment and surplus material, wreckage, rubbish and Temporary Works, from the Site unless otherwise instructed by the Engineer.”

*In the 2nd paragraph, replace “after the Employer receives a copy of the Performance Certificate” with “after the issue of the Taking-Over Certificate”.*

## **12.3 Evaluation**

*Replace the second sentence of paragraph two with the following:*

“However a new rate or price shall be appropriate for an item of work only if notice has been given and if ...”

*Replace the word “Contract” with ‘Appendix to Tender’.*

## **13.3 Variation Procedure**

*Replace the 3rd paragraph with the following:*

“Each instruction to execute a Variation, unless the Variation is to be executed on a Day work basis, shall be a written instruction presented in the form of a Variation order. The Variation order shall be presented to the Employer, who shall signify his approval before the order is signed by the Engineer and issued to the Contractor, who shall acknowledge his acceptance by signing the order. The Contractor shall not accept a Variation order that is not approved and signed by the Employer”.

## **13.5 Provisional Sums**

*In the 1st line of sub-paragraph (b) after “services” insert “and including items for which a prime cost sum has been provided in the Bill of Quantities”.*

## **13.6 Day work**

*Replace the 2nd and 3rd sentences in the 1st paragraph with “The following procedure shall apply.”*

*Add the following as the 5th paragraph of this sub-clause:*

“The work shall be valued in accordance with the Day work Schedule included in the Contract or, in the absence of a Day work Schedule or for items not included in the Day work Schedule the Contractor shall be paid the aggregate of:

- (i) the gross remuneration of the workmen for the time they are actually engaged on the work concerned,
- (ii) the net cost of Materials actually used,
- (iii) an amount in respect of Contractor’s Equipment which shall be charged on a time basis at the rates stated in the Tender, failing which at rates, to be agreed between the Contractor and the Engineer or, failing agreement, to be determined by the Engineer on the basis of ruling equipment hire rates and
- (iv) the percentage allowances stated in the Contract Data, which allowances shall be held to cover all charges for the Contractor’s and/or Subcontractor’s profits, timekeeping, clerical work, insurance, establishment, superintendence and the use of hand tools.”

### **13.8 Adjustments for Changes in Costs**

*Replace this sub-clause with the following:*

"The value of certificates issued in terms of Sub-clause 14.6 (excluding the value of those special Materials specified in the Contract Data) shall be increased or decreased by applying a Contract Price adjustment factor calculated according to the formula and the conditions set out in the Contract Price adjustment Schedule appended to these Particular Conditions.

Price adjustments for variations in the costs of special Materials specified in the Contract Data shall be made in the manner set out in the Contract Price adjustment schedule."

### **14.3 Application for Interim Payment Certificates**

*In the 1st line of the 1st paragraph, delete "in six copies."*

*In the 4th line of the 1st paragraph, change "the report" to "reports."*

*In the 2nd paragraph, sub-paragraph (c), after "above amounts" insert "and 80% of the value of Materials on Site" and add the following as a final paragraph:*

"If, as stated in the Contract Data, a Retention Money Guarantee is permitted and the Contractor elects to furnish it, the guarantee shall, at the cost of the Contractor, be executed by an insurance company or bank in a form approved by the Employer.

The said company or bank shall be registered or licensed to do business in the Republic of South Africa and shall have an office and banking facility in the Republic of South Africa and shall be subject to approval by the Employer.

The aggregate liability under the guarantee shall be the maximum amount of retention monies to be retained by the Employer, which amount shall be as stated in the Contract Data.

Other conditions, if any, additional to the above standard conditions shall be as stated in the Contract Data.

The guarantee shall expire on the date on which the last of the retention monies (which, but for the guarantee, would have been retained by the Employer) becomes payable to the Contractor.

The guarantee shall be returned to the guarantor upon final payment of the aggregate liability or on the date of expiry, whichever is the earlier."

### **14.5 Plant and Materials intended for the Works**

*In the first paragraph delete "If this Sub-Clause applies".*

*Delete the 2nd paragraph.*

*In the 3rd paragraph, delete sub-paragraphs (b) and (c) (i) and amend sub-paragraph (a) so that (c) (ii) becomes (a) (iii) thus:*

"(a) (ii) supported by satisfactory evidence; and  
(a) (iii) the relevant Plant and Materials have been delivered to and ..."

*Add the following paragraph:*

"If so agreed in writing by the Employer, the provisions of this Sub-Clause 14.5, as amended herein, shall apply equally to Plant and Materials intended for incorporation in the Permanent Works and stored at places other than the Site."

## **14.6 Issue of Interim Payment Certificates**

*In the 2nd line of the 1st paragraph replace "28" with "14"*

## **14.7 Payment**

*In sub-paragraphs (b) and (c) of the 1st paragraph replace "56" with "28".*

*Delete the 2nd paragraph.*

## **14.8 Delayed Payment**

*Replace the 2nd paragraph with the following:*

*"These financing charges shall be at the rate prescribed in terms of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975)".*

## **14.10 Statement at Completion**

*In the 2nd line of the 1st paragraph delete "six copies of".*

## **14.11 Application for Final Payment Certificate**

*In the 2nd line of the 1st paragraph delete "six copies of".*

*In the 3rd paragraph, replace the last sentence with:*

*"Thereafter, when the dispute is finally resolved, the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement."*

## **14.15 Currencies of Payment**

*Delete this sub-clause.*

## **15.2 Termination by the Employer**

*Delete sub-paragraph (f) and replace with the following:*

*"(f) Gives or has given, offers to give or has offered to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:*

- (i) for doing or forbearing to do any action in relation to the Contract or any other contract with the Employer or State Department or Organ of State, or*
- (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other contract with the Employer or State Department or Organ of State,*

*or if any of the Contractor's Personnel, agents or Subcontractors gives or has given, offers to give or has offered to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination."*

*Add the following sub-paragraph:*

*"(g) Misrepresented, whether innocently, negligently or fraudulently, the true facts requested in the tender documents."*

*Insert the following after the expression e) or f) in the penultimate line of the second paragraph:*

*"or g)"*

*Replace the full stop at the end of the third paragraph with a comma and add the following:*

"including the right to terminate any other contract between the Employer and the Contractor and to forbid the Contractor or any employee, partner, shareholder or director of the Contractor to tender on any future projects put out to tender by the Employer for a period of five years from the date of notice of termination, which period may be reduced by application to and at the sole discretion of the Employer."

### **17.3 Employer's Risks**

*Add the following to sub-paragraph (c):*

"unless these risks are insurable with the South African Special Risks Insurance Association (SASRIA) at the time of tendering and it is stipulated in the Contract Data that the Contractor is to effect insurance against these risks".

### **18.1 General Requirements for Insurances**

*Replace this sub-clause with the following:*

"The Contractor shall effect all insurances as have been proposed and agreed by the Contractor as being necessary to adequately cover his insurable obligations under the Contract and shall maintain such insurances for the duration of the Contract.

With regard to the insurances to be effected for insurance against injury to Persons and Damage to property the Contractor shall arrange for the policy to be issued in the joint names of the Contractor, the Employer and Subcontractors and will incorporate a Cross Liability clause.

The Employer shall be entitled at his discretion to call for evidence of the scope and validity of such insurance as and when this may be required.

If required, the Contractor shall provide proof that he has paid all contributions required in terms of the compensation for Occupational Injuries and Diseases, 1993 (Act No 130 of 1993)."

### **18.2 Insurance for Works and Contractor's Equipment**

*Delete this sub-clause.*

### **18.3 Insurance against Injury to Persons and Damage to Property**

*Delete this sub-clause.*

### **18.4 Insurance for Contractor's Personnel**

*Delete this sub-clause.*

### **19.1 Definition of Force Majeure**

*In the third line of sub clause 19.1(iii) insert "or suppliers," after the word "Subcontractors".*

### **19.5 Force Majeure Affecting Subcontractor**

*Amend the title to read "Force Majeure Affecting Subcontractor and Supplier".*

*In the first line insert "or supplier" after the word "Subcontractor"*

### **20.1 Contractor's Claims**

*In paragraph 5, insert the following after the first sentence:*

"If an extension of time is granted the Contractor shall be paid such additional time-related Preliminary and General allowances as are appropriate having regard to any other compensation which may already have been granted in respect of the circumstances concerned. Payment of costs additional to the above will only be considered if the costs derive from claims that fall within the terms of Clause 13 [Variations and Adjustments] and/or Sub-clause 17.3 [Employer's Risks]."

*Replace the 6th paragraph with the following:*

"After receiving a claim or any further particulars supporting a previous claim, the Engineer shall present such claim or particulars to the Employer, together with his recommendations, for a ruling, which ruling shall be given to the Contractor within 42 days after receiving a claim or any further particulars, provided that the said period of 42 days may be extended by application from one Party and approval of the other. If the Employer fails to give his ruling within the specified period, or agreed extension thereto, it shall be deemed that the Employer has dismissed the claim."

*Delete the 8th paragraph.*

## **20.2 to 20.8**

*Replace these sub-clauses with the following:*

### **20.2 Settlement of Disputes**

- (a) The Contractor shall have the right to dispute any ruling given or deemed to have been given by the Employer or the Engineer, provided that, unless the Contractor shall, within 42 days after his receipt of a ruling or after a ruling shall have been deemed to have been given, give written notice (hereinafter referred to as a "Dispute Notice") to the Engineer, referring to this Clause, disputing the validity or correctness of the whole or a specified part of the ruling, he shall have no further right to dispute that ruling or the part thereof not disputed in the said Dispute Notice.
- (b) All further references herein to a ruling shall relate to the ruling, or part thereof, specified in the Dispute Notice, as varied or added to by agreement between the Contractor and the Engineer or by the Engineer's decision in terms of sub-paragraph (c) or by the Mediator's opinion to the extent that it has become binding in terms of Sub-clause 20.3(f).
- (c) The Engineer shall
  - i) before giving his decision on the dispute, consult the Employer thereon and give the Contractor a reasonable opportunity to present written or oral submissions thereon, which latter shall be confirmed in writing within 7 days
  - ii) deliver his decision in writing to the Employer and to the Contractor, and
  - iii) give his decision within 56 days of his receipt of the Dispute Notice, or within any further period as may be agreed between the Engineer and the Contractor, failing which, he shall be deemed to have given a decision affirming, without amendment, the ruling concerned.
- (d) Unless either the Employer or the Contractor, shall, within 28 days after his receipt of notice of the decision in terms of sub-paragraph (c)(ii) or after the decision is deemed to have been given in terms of sub-paragraph (c)(iii), have given notice in writing to the Engineer, with a copy to the other Party, disputing the Engineer's decision or a specific part thereof, he shall have no further right to dispute any part of the ruling not specified in his said notice.
- (e) If either Party shall have given written notice in compliance with sub-paragraph (d), the dispute shall be referred to mediation in terms of Sub-Clause 20.3 unless either Party has given written notice to the other Party of its intention to refer the matter in dispute to court, which notice shall be given either:
  - i) within 28 days of receipt of notice of the Engineer's decision, or
  - ii) within 14 days of receipt by the one Party of the other Party's notice of dispute of the Engineer's decision.
- (f) Notwithstanding that the Contractor may, in respect of a ruling, have given a Dispute Notice, the ruling shall be of full force and carried into effect unless and until otherwise agreed by both Parties in terms of Sub-Clause 20.3(f) or as determined in a court judgement.

### 20.3 Mediation

(a) The mediation referred to in Sub-Clause 20.2(e) shall be conducted by a mediator selected by agreement between the Parties or, failing such agreement within 7 days after a written request by either Party for such agreement, nominated on the application of either Party by the President for the time being of the South African Institution of Civil Engineering.

If, for any reason, the person appointed fails to assume or to continue in the office concerned:

- (i) the provisions of Sub-Clause 20.3 shall apply mutatis mutandis in the appointment of a successor, and
- (ii) in making his nomination in terms of this sub-clause, the president for the time being of the South African Institution of Civil Engineering shall, at his own discretion, act in consultation with the presidents for the time being of Consulting Engineers South Africa and the South African Federation of Civil Engineering Contractors, and
- (iii) if the president required to make a nomination in terms of this sub-clause shall have a direct or indirect interest in the subject matter of the dispute, the nomination shall be made by the chief executive officer or the next senior officer of the body concerned who has no such interest.

(b) Neither Party shall be entitled to be represented at any hearing before, or at, any meeting, or in any discussion, with the mediator except by any of the following:

- i) the Party himself, if a natural person,
- ii) a partner in the case of a partnership,
- iii) an executive director in the case of a company,
- iv) a member in the case of a close corporation,
- v) the Engineer,
- vi) a bona fide employee of the party concerned, and
- vii) a professional engineer appointed for the purpose by the Party concerned.

(c) The mediator shall, as he deems fit, follow formal or informal procedure and receive evidence or submissions orally or in writing, sworn or unsworn, at joint meetings with the Parties or separately or from any person whom he considers can assist in the formulation of his opinion, provided that:

- i) each Party shall be given reasonable opportunities of presenting evidence or submissions and of responding to evidence or submissions of the other Party, and
- ii) each Party shall be given full details of any evidence or submissions received by the Mediator from the other Party or any other person otherwise than at a meeting where both Parties are present or represented.

(d) The mediator shall have the power to propose to the Parties compromise settlements of or agreements in disposal of the whole or portion of the dispute.

(e) The mediator shall, as soon as reasonably practical, give to each of the Parties his written opinion on the dispute, setting out the facts and the provisions of the Contract on which the opinion is based and recording the details of any agreement reached between the Parties during the mediation.

(f) The mediator's opinion shall become binding on the Parties only to the extent correctly recorded as being agreed by the Parties in the mediator's written opinion or otherwise as recorded as being agreed in writing by both Parties subsequent to the receipt of the mediator's opinion.

(g) The dispute on any matter still unresolved after the application of the provisions of sub-paragraph (f) shall be resolved by court proceedings.

(h) Save for reference to any portion of the mediator's opinion which has become binding in terms of sub-paragraph (f), no reference shall be made by or on behalf of either Party, in any proceedings subsequent to mediation, to the mediator's opinion, or to the fact that any particular evidence was given, or to any submission, statement or admission made in the course of the mediation.

(i) Irrespective of the nature of the mediator's opinion:

- (i) each Party shall bear his own costs arising from the mediation, and
- (ii) the Parties shall in equal shares pay the mediator the amount of his expenses and the amount of his fee based on a scale of fees as agreed between the mediator and the Parties before the commencement of the mediation.

## **20.4 Reference to Court**

If a dispute is still unresolved as provided for in sub-paragraph (g) of sub-clause 20.3 or the dispute is one described in sub-clause 20.5, the dispute shall be determined by court proceedings, provided that:

- (a) nothing herein contained shall deprive the Contractor of the right to institute immediate court proceedings in respect of failure by the Employer to pay the amount of a payment certificate on its due date or to refund any amount of retention money on its due date for refund,
- (b) no ruling or decision given by the Engineer in accordance with the provisions of the Contract shall disqualify him from being called as a witness and giving evidence before the court on any matter whatsoever relevant to the dispute concerned, and
- (c) the court shall have full power to open up, review and revise any ruling, decision, order, instruction, certificate or valuation of the Engineer relevant to the matter in dispute.

## **20.5 Special Disputes**

Notwithstanding anything elsewhere provided in sub-clauses 20.2, 20.3 and 20.4, any dispute between the Contractor and the Employer,

- (a) not relating to a ruling, decision, order, instruction or certificate by the Engineer, or
- (b) arising after the completion of the Contract or, if a Defects Notification Period is provided, after the termination of that period,

shall be determined, without the application of the provisions of sub-clauses 20.2 and 20.3 by court proceedings which may be initiated by either Party, in which event the provisions of sub-clause 20.4 shall apply.

## **20.6 Continuing Validity of sub-clauses 20.2 to 20.6**

Sub-clauses 20.2 to 20.6 inclusive constitute a separate, divisible agreement from the rest of the Contract and shall remain valid and applicable, notwithstanding that the Works may have been completed or that the rest of the Contract may be void or voidable or may have been cancelled for any reason."

## **APPENDIX: General Conditions of Dispute Adjudication Agreement**

*Delete this appendix*

## **ANNEX: Procedural Rules**

*Delete this annexure*

## APPENDIX TO THE PARTICULAR CONDITIONS:

### CONTRACT PRICE ADJUSTMENT SCHEDULE

1. <b>Contract Price Adjustment</b>	<p>In accordance with sub-clause 13.8, the value of each certificate issued in terms of sub-clause 14.6 shall be increased or decreased by the amount obtained by multiplying "Ac", defined in clause 2 of this Schedule, by the Contract Price adjustment factor, rounded off to the sixth decimal place (or the fourth decimal place if expressed as a percentage), determined according to the formula:</p> $(1 - x) \left[ \frac{aL_t}{L_o} + \frac{bE_t}{E_o} + \frac{cM_t}{M_o} + \frac{dF_t}{F_o} - 1 \right]$ <p>in which the symbols have the following meanings:</p> <p>"x" is the proportion of "Ac" which is not subject to adjustment. Unless otherwise stated in the Appendix this proportion shall be 0, 15.</p> <p>"a", "b", "c" and "d" are the co-efficient determined by the Engineer and specified in the Contract Data, which are deemed, irrespective of the actual constituents of the work, to represent the proportionate value of labour, equipment, materials (other than "special materials" specified, in terms of sub-clause 13.8, in the Contract Data) and fuel respectively. The arithmetical sum of "a", "b", "c", and "d" shall be unity.</p> <p>"L" is the "Labour Index" and shall be the "Consumer Price Index" for the urban area specified in the Contract Data, as published in the Statistical Release P0141, Additional tables, Table 13, of Statistics South Africa.</p> <p>"E" is the "Equipment Index" and shall be the "Civil Engineering Plant Index" as published in the Statistical Release P0142.1, Table 12, of Statistics South Africa. Note that Statistics South Africa's "Civil Engineering Plant" includes equipment.</p> <p>"M" is the "Materials Index" and shall be the "Price Index of Civil Engineering Materials", as published in the Statistical Release P0142.1, Table 11, of Statistics South Africa.</p> <p>"F" is the "Fuel Index" and shall be the index for diesel oil – Coast and Witwatersrand, as published in the Statistical Release P0142.1, Table 12, of Statistics South Africa.</p> <p>The suffix "o" denotes the basic indices applicable on the Base Date as defined in sub-clause 1.1.3.1 of the General Conditions of Contract.</p> <p>The suffix "t" denotes the current indices applicable to the month in which the last day of the period falls to which the relevant payment certificate relates.</p> <p>If any index relevant to any particular Payment Certificate is not known at the time when the certificate is prepared, the Engineer may estimate the value of such index. Any correction which may be necessary when the correct indices become known shall be made by the Engineer in subsequent Payment Certificates.</p>
2. <b>Assessment of amount subject to adjustment</b>	<p>For the purpose of calculating the adjustment to the value of the certificates, the amount "Ac" shall be determined by the formula:</p> $Ac = T - S - D - W - G - Ap$

In which formula the symbols have the following meanings:

“T” is the summation of the total value of the

- (i) preliminary and general items,
- (ii) work done, and
- (iii) Materials on Site

as certified in the Payment Certificate under consideration without any deduction whatsoever and before any adjustment made in terms of this Schedule

“S” is the aggregate of (i), (ii), (iii) and (iv), referred to below, and included in “T”:

- (i) the amounts actually expended and substituted for any prime cost sums;
- (ii) the value of any work done by Nominated Subcontractors;
- (iii) the value of any work done against Provisional Sums
- (iv) the value of any extra or additional work done under a Variation order

where special arrangements for price adjustments in respect of those amounts were made and recorded at the time the work was ordered.

“D” is the value of work included in “T” and done at new rates fixed in terms of sub-clause 12.3, where those rates are not based on labour, Contractor’s Equipment or Materials costs in force at the time of tendering. Generally new rates may be based on current costs and de-escalated to the Base Date of the indices, in which case work done at these rates shall not be included in the value of “D”.

“W” is the amount included in “T” and paid for any Day work executed at Cost plus percentage allowances as set out in sub-clause 13.6 as amended by Particular Condition.

“G” is the amount included in “T” for Materials classified and dealt with as “special materials” in terms of sub-clause 13.8 as amended by Particular Condition.

“Ap” is the summation of all “Ac” amounts determined in terms of Clause 2 of this Schedule for all Payment Certificates preceding in time the Payment Certificate under consideration.

3. <b>Reduction of CPAF after Time for Completion has expired</b>	Save only for Variations ordered to be carried out after the Time for Completion has expired, the Contract Price adjustment factor to be applied to certificates relating to work done or materials supplied after the Time for Completion shall be half the factor calculated by inserting in the formula referred to in Clause 1 of this Schedule the indices Lt, Et, Mt and Ft applicable at the date of expiry of the Time for Completion.
4. <b>Special materials</b>	The price of each “special material” specified in the Contract Data shall be increased or decreased by the net amount of any variation incurred after the date of the Tender on the basis set out in the Contract, provided that any claim for adjustment in terms hereof shall be substantiated by the submission of acceptable invoices and any other supporting documents which the Engineer considers necessary for that purpose. However, except for Variations ordered in terms of Clause 13 (Variations and Adjustments) all adjustments after expiry of Time for Completion shall be calculated by using the price of each “special material” at expiry of Time for Completion or the contract base price of each “special material”, whichever is the lesser.

For the purpose of this clause, “the net amount of any Variation” in respect of a particular material referred to as a “special material” in terms of sub-clause 13.8

shall be calculated by multiplying the difference between the rate or price entered in the Contract by the Contractor for that Material and the equivalent rate or price actually paid by the Contractor for the Material by the quantity of the Material in question.

5. **Assessment of indices if certificates are not issued monthly**

If more than one month intervenes between the months applicable to any Payment Certificate and the month applicable to the immediately succeeding payment certificate, then the indices "Lt", "Et", "Mt" and "Ft" applicable to the succeeding Payment Certificate shall each be taken as the arithmetic mean, rounded off to the second decimal place, of the relevant indices applicable to the month of measurement and to such intervening months.

## **C1.2.2 CONTRACT DATA - INFORMATION PROVIDED BY THE EMPLOYER**

### **APPENDIX TO TENDER**

Note: Clause numbers (Cl. No.) refer to the FIDIC "General Conditions of Contract for Construction for Building and Engineering Works designed by the Employer" (1999). The prefix A refers to an amendment in the Particular Conditions.

<b>Item</b>	<b>Clause No</b>	<b>Data</b>
Employer	1.1.2.2	<p>means The Department of Roads and Transport</p> <p>The Employer's address is:</p> <p>Department of Roads and Transport Private Bag X83 Marshalltown 2107</p>
Engineer	1.1.2.4	<p>The Deputy Director, Directorate Maintenance Technical Auxiliary Services, Office Support and Co-ordination at Koedoespoort will act as the Project Manager.</p>
Communications	1.3	<p>The addresses for communication between the parties shall be:</p> <p><b>BENONI</b> <b>Regional Manager</b> Main Reef Road Benoni TEL: (011) 748 2001/2 FAX: (011) 423 2837</p> <p><b>BRONKHORSTSspruit</b> <b>Regional Manager</b> Nr. 2 Industria Cresent Road Bronkhorstspruit TEL: (01393) 20171/2 FAX : (01393) 22851</p> <p><b>KRUGERSDORP</b> <b>Regional Manager</b> 97 Sterkfontein Road Krugersdorp North TEL : (011) 660 5541 FAX : (011) 660 7884</p>

**PRETORIA****Regional Manager**

Plot 34

Baviaanspoort weg

Derdepoort 326 JR

TEL : (012) 808 9913

FAX : (012) 808 3470

**VEREENIGING****Regional Manager:**

Lager Street

Leeuhof

Vereeniging

TEL: (016) 451 1047

FAX: (016) 451 1048

Period of validity of tender	-	120 days after the closing date for tenders
Time for completion of works	1.1.3.3.	36 months including the contractor's holidays in December and January
Defects for notification period	1.1.3.7	12 calendar months
Laws	1.1.6.5	The law governing this contract is South African law
Time for access to the site	2.1	Nil (access on Commencement Date)
Amount of performance security	4.2	10 % of the accepted contract amount (CI no. 4.11)
Base date	13.8	Base date for this contract is the month prior to the date of tender closure.
Special non-working hours/days	A6.5	All designated public holidays (including all foreseeable statutory declared election days),
Period in which works must commence	A8.1	Not later than 14 days after the date on a Works Order
Delay damages for the works	A8.7	<p>(a) Delay Damages</p> <p>(i) Late delivery / completion <b>R 5000 per day</b> for any specific works order</p> <p>(ii) Non-compliance <b>R1000 per day</b></p>
Penalties for non-conformance	A8.13	<p>(b) Accommodation of traffic penalties</p> <p>(i) <b>R5000.00</b> per identified event</p> <p>(ii) <b>R500.00</b> per hour beyond instructed time for rectification</p>
Evaluation	A12.3	The term "fixed rate item" shall apply to all items of work listed in the Pricing Schedule. (Including agreed items of work listed in variation orders)
Day work allowances	A 13.6	Not applicable

Price Variations	A 13.8	CPA Applicable
Retention money: - Percentage	14.3 (c)	Not Applicable 0 %
- Limit	14.3 (c)	Not Applicable
Minimum amount of interim payment certificate	14.6	Not Applicable
Contractor to insure with SASRIA	A17.3 (c)	Applicable / Required
Appointment of DAB	A 20.2	Not Applicable
BEE Target values (CPG)	E3.2	Not Applicable
Labour Content		Not Applicable
SMME/BE utilization		Not Applicable
Termination by Employer	15	Applicable
Suspension and Termination by Contractor	16	Applicable
Risk and Responsibility	17	Applicable
Insurance	18.1	Applicable / Required
Insurance for contractors works and equipment	18.2	Applicable / Required
General Public Liability Cover for claims against the Contractor	18.3	Applicable / Required
Insurance for contractor's personnel	18.4	Applicable / Required

SIGNED BY TENDERER: .....

### **C1.2.3 CONTRACT DATA – INFORMATION PROVIDED BY THE TENDERER**

The Contractor is .....

Physical Address: .....

Telephone: .....

Facsimile: .....

The authorised and designated representative of the Contractor is:

Name: .....

The postal address for receipt of communications is: .....

Telephone: .....

Facsimile: .....

Physical Address: .....

Email: .....

## **C1.3 OTHER STANDARD FORMS**

### **C1.3.1 FORM OF OCCUPATION HEALTH AND SAFETY ACT 1993 (ACT NO. 85 OF 1993)**

This AGREEMENT made at ..... on this the ..... day of ..... in the year ..... between THE DEPARTMENT OF ROADS AND TRANSPORT (hereinafter called "the Employer") on 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 Mandatory") on the other part, herein represented by ..... in his capacity as .....

WHEREAS the Employer is desirous that certain works be constructed, viz TENDER NR: ..... for.....

..... and has accepted a tender by the Mandatory for the construction, completion & maintenance of such works and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Mandatory shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good from its commencement date, to either :
  - a) the date of the Performance Certificate issued in terms of sub-clause 11.9 of the FIDIC Conditions of Contract for Construction for building and engineering works designed by the Employer (1999) (hereinafter referred to as "the GCC"), as contained in Volume 1 of the contract documents pertaining to this contract, or
  - b) the date of termination of the contract in terms of clauses 15, 16 or 19 of the GCC.
3. The Mandatory declares himself to be conversant with the following:-
  - a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act.
    - i) Section 8: General duties of employers to their employees.
    - ii) Section 9: General duties of employers and self-employed persons to persons other than employees.
    - iii) Section 37: Acts or omissions by employees or mandatories and
    - iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
  - b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.

4. In addition to the requirements of sub-clause 4.8, 6.7 and 17.1 of the GCC and all relevant requirements of Volume 3 of the contract documents pertaining to this contract, the Mandatory agrees to execute all the works forming part of this contract and to operate and utilize all machinery, plant and equipment in accordance with The Act.
5. The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not nominated and/or approved by the Employer.
6. The Mandatory warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993, which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
7. The Mandatory undertakes to ensure that he and/or his subcontractors and/or their respective employees will at all times comply with the following conditions:
  - a) The Mandatory shall assume the responsibility in terms of Section 16.1 of The Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of The Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
  - b) All incidents referred to in The Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
  - c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of The Act into any incident involving the Mandatory and/or his employees and/or its subcontractors.

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

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

WITNESS: .....

NAME (IN CAPITALS) .....

SIGNED FOR AND ON BEHALF OF THE MANDATORY .....

WITNESS: .....

NAME (IN CAPITALS): .....

### C1.3.2 FORM OF GUARANTEE

To: The Department of Roads and Transport  
Private Bag X83  
Marshalltown  
2107

**Note to tenderer:**

**This pro forma is for information only. The successful tenderer's guarantor will need to reproduce it without amendment, omission or addition for completion and lodgement with the Employer. A separate copy of this pro forma will be issued to the successful tenderer with the letter of acceptance.**

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

1. I/We , the undersigned, and .....

in our respective capacities as .....

and .....

and as such duly authorised to represent: .....  
(hereinafter referred to as "the Guarantor") **(in the case of a company, a resolution to be attached)**

do hereby hold at your disposal the amount of .....

(R.....) including VAT, for the due fulfilment by .....

**(insert the name of Contractor)** (hereinafter referred to as "the Contractor") of its obligations to The Department of Roads and Transport (hereinafter referred to as "Employer") in terms of the above stated contract between the Contractor and the Employer.

2. The Guarantor hereby renounces the benefits of the exceptions non numeratae pecuniae, non causa debiti, excussionis and divisionis, the meanings and effect whereof we declare ourselves to be fully conversant.

3. The Guarantor undertakes and agrees to pay to the Employer the said amount of R .....

.....  
(R.....) including VAT, or such portion as may be demanded on receipt of a written demand from the Employer, which demand may be made by the Employer if, (in your opinion and at your sole discretion), the said Contractor fails and/or neglects to commence the work as prescribed in the contract or if he fails and/or neglects to proceed therewith or if, for any reason, he fails and/or neglects to complete the services in accordance with the conditions of contract, or if he fails or neglects to refund to the Employer any amount found to be due and payable to the Employer, or if his estate is sequestrated or if he surrenders his estate in terms of the Insolvency Law in force within the Republic of South Africa.

4. Subject to the above and without in anyway detracting from your rights to adopt any of the procedures set out in the contract, the said demand can be made by you at any stage.

5. The said amount of R .....

(R.....) including VAT, or such portion as may be demanded may be retained by the Employer on condition that after completion of the service, as stipulated in the contract, the

Employer shall account to the Guarantor showing how this amount has been utilised and refund to the Guarantor any balance due.

6. This guarantee is neither negotiable nor transferable and
  - a) must be surrendered to the Guarantor at the time when the Employer accounts to the Guarantor in terms of clause 5 above, or
  - b) shall lapse upon the issue of the Taking-Over Certificate in terms of sub-clause 10.1 of the General Conditions of Contract and
  - c) shall not be interpreted as extending the Guarantor's liability to anything more than payment of the amount guaranteed.
7. This guarantee shall be governed by South African Law and subject to the jurisdiction of South African Courts.

THUS DONE AND SIGNED AT .....

ON THIS ..... DAY OF ..... 20.....

GUARANTOR: .....

AS WITNESSES: 1 ..... 2 .....

NAMES (PRINT) 1 ..... 2 .....

ADDRESSES 1 ..... 2 .....

**C1.3.3 FORM OF REGISTRATION OF CONTRACT WITH DEPARTMENT OF LABOUR**

**Annexure A**

**Occupational Health and Safety Act, 1993**

**Construction Regulations, 2014 (as amended)**

**Regulation 3 of the Construction Regulations, 2014 (as amended)**

**NOTIFICATION OF CONSTRUCTION WORK**

1. (a) ..... Name and postal address of principal contractor:  
.....  
.....
- (b) ..... Name and telephone number of principal contractor's contact person:  
.....
2. Principal contractor's compensation registration number:  
.....
3. (a) Name and postal address of client:  
*The Department of Roads and Transport, (insert Regional office postal address)*  
(b) Name and telephone number of client's contact person or agent:  
Client: **(enter Project Manager Name and telephone number)**  
.....  
Agent: **(enter Engineer name and telephone number)**  
.....
4. (a) Name and postal address of designer(s) of the Project:  
.....  
(b) Name and telephone number of the designer's contact person:  
.....
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of Regulation 6(1):  
.....
6. Name(s) of principal contractor's subordinate supervisors on site appointed in terms of Regulation 6(2):  
.....

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

.....

## 8. Nature of construction work:

.....

.....

9. Expected commencement date: .....

10. Expected completion date: .....

11. Estimated maximum number of persons on the construction site: .....

12. Planned number of contractors on the construction site accountable to the principal contractor:

.....

13. Name(s) of contractors already chosen:

Digitized by srujanika@gmail.com

.....

.....

Digitized by srujanika@gmail.com

**PRINCIPAL CONTRACTOR**

.....

.....

## CLIENT

.....  
DATE

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON SITE.
- ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK

#### **C1.3.4 FORM OF BANKING DETAILS**

##### **Notes to Contractor:**

1. The Employer applies an Electronic Funds Transfer system for all payments.
2. If you are already registered as a vendor with the Employer, you are not required to submit the documentation as per note 3.
3. If you are not registered as a vendor with the Employer, you are required to supply:
  - an original cancelled cheque bearing your company name and account number; or
  - if you are unable to supply an original cancelled cheque, you are to provide a letter on your letterhead as per the pro forma below and return the original letter to the address as stated in clause 1.3 of C1.2.2 - Information provided by the Employer, delivered by hand or sent by post.

---

To:  
The Department of Roads and Transport  
Chief Directorate Maintenance  
1215 Nico Smith Street  
Koedoespoort  
Pretoria  
0186

Dear Sir

#### **TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

##### **BANKING DETAILS**

By signing this document, we accept the following:

- The banking details submitted are those of ..... and we take full responsibility for their correctness.
- We indemnify the Employer from any and all outcomes if an electronic transfer is made into an incorrect bank account using the banking details submitted.

Account Name: .....

Bank: .....

Branch Name: .....

Branch Code: .....

Account Number: .....

Yours sincerely

.....  
Authorised Signatory for

DATE: ' .....

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.1 Pricing Instructions**

1. Measurement and payment shall be in accordance with the relevant provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works.
2. The units of measurement described in these Bill of Quantities are metric units. Abbreviations used in these Bill of Quantities are as follows:

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

3. For the purpose of these Bills of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work as defined in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).

Quantity: The number of units of work for each item.

Rate: The agreed payment per unit of measurement.

Amount: The product of the quantity and the agreed rate for an item.

Lump sum: An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. It will be assumed that prices included in the Bill of Quantities, unless otherwise stated in the Scope of Work, are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published before the closing date for tenders. (Refer to [www.stanza.org.za](http://www.stanza.org.za) or [www.iso.org](http://www.iso.org) for information on standards)
6. The prices and rates in this Bill of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit.
7. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items
8. **All items in the Bill of Quantities need to be completed separately. No grouping of items with a single lump sum will be allowed.**
9. The quantities set out in these Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in this Bill of Quantities.
10. Reasonable compensation will be received where no pay item appears in the Bill of Quantities in respect of work required in terms of the Contract and which is not covered in any other pay item.
11. The short descriptions of the items of payment given in these Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
12. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).
13. The contractor shall bear all the costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required for the purposes of the Works.
14. The Bills of Quantities in the Tender Document must be completed in Black Ink and signed.
15. The Bills of Quantities in the Tender Document must be fully completed – every item must be priced.
16. The contract will come to an end when either the money or the time period is finished. It is the sole discretion of the Department to increase the quantities or not.



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**Part C2.2 Bill of Quantities**



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.2 BILL OF QUANTITIES**

### **BILL A: BENONI REGION**

**NB:** TENDERERS MUST COMPLETE THE SCHEDULE OF RATES WITH BLACK INK.

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b>SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
<b>B13.01</b>	<b>The Contractor's general obligations:</b>				
(d)	Establishment on site for orders smaller than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(e)	Establishment on site for orders greater than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(f)	Occupational Health and Safety (OHS File) Act, No. 85 of 1993 compliance	month	36		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 1500: ACCOMMODATION AND TRAFFIC</u></b>				
<b>B15.01</b>	<b>Accommodating traffic and maintaining temporary deviations:</b>				
(a)	On dual carriageways	km	250		
(b)	On single carriageways	km	656		
<b>B15.03</b>	<b>Temporary traffic control facilities.</b>				
(a)	Flagmen	Man-day	2 000		
<b>B15.14</b>	<b>Accommodation of traffic during measurement and testing work</b>	day	50		
<b>B15.15</b>	<b>Extra over item B15.01 for the provision of a truck mounted attenuator (TMA) and 5 ton gross mass vehicle as described in clause B1502(i)(ix)</b>	km	1 000		
<b>B15.16</b>	<b>Amber flashing lights mounted on signs</b>	no	8		
<b>B15.17</b>	<b>Provision of traffic safety equipment for use by the engineer</b>				
(a)	Safety jackets	no	5		
<b>B15.18</b>	<b>Construction Health and Safety Officer</b>	month	36		
<b>B15.19</b>	<b>Penalties</b>				
(a)	Fix penalty per occurrence	no		5 000	Rate Only
(b)	Time related penalty	hour		500	Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.02</b>	<b><u>SECTION B5700: ROAD MARKINGS</u></b>				
	<b>Retro-reflective paint markings for temporary road markings:</b>				
(a)	White lines (broken or unbroken)				
	(i) 100 mm wide	km	120		
	(ii) 150 mm wide	km	30		
	(iii) 200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken)				
	(i) 100 mm wide	km	120		
	(ii) 150 mm wide	km	30		
(c)	White lettering and symbols	m <sup>2</sup>	200		
(d)	Yellow lettering and symbols	m <sup>2</sup>	150		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	500		
<b>B57.06</b>	<b>Setting out and pre-marking the lines</b>	km	150		
<b>B57.08</b>	<b>Removal of existing road markings by:</b>				
(a)	Sand-blasting	m <sup>2</sup>	50		
(b)	Overpainting as temporary measure	m <sup>2</sup>	50		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>  White lines (broken or unbroken):  (a) (i) 100 mm wide (ii) 150 mm wide (iii) 200 mm wide  (b) Yellow lines (broken or unbroken):  (i) 100 mm wide (ii) 150 mm wide  (c) White lettering and symbols  (d) Yellow lettering and symbols  (e) Transverse lines, painted island and arrestor bed markings (any colour)	km km km km m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	600 100 20 300 50 20 000 4 000 10 000		
<b>B57.11</b>	<b>Extra over item B57.10 to allow variance in:</b>  (a) Surface texture (b) High traffic volumes (c) High heavy vehicle volumes (d) Excessive cleaning (water jetting, compressed air, etc)	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	60 000 80 000 70 000 500		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.12</b>	<b>Performance-guaranteed retro-reflective road markings applied with highly durable materials:</b>				
(a)	White lines (broken or unbroken):				
(i)	100 mm wide	km	500		
(ii)	150 mm wide	km	50		
(iii)	200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken):				
(i)	100 mm wide	km	500		
(ii)	150 mm wide	km	50		
(c)	White lettering and symbols	m <sup>2</sup>	4 000		
(d)	Yellow lettering and symbols	m <sup>2</sup>	1 000		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	1 000		
<b>B57.13</b>	<b>Supply and installation of road studs:</b>				
(a)	(i) (Type as instructed by the Engineer	PC Sum	1		500 000.00
	(ii) Charge on Prime Cost Sum	%	500 000.00	10%	50 000
(b)	Installation of road studs to manufacturers' requirements:				
	(i) Stick on studs with or without a shank	no	3 000		
		no	500		
	(ii) Studs to core drilled into a bituminous surface	no	250		
	(iii) Studs to be core drilled into a concrete surface				
<b>B57.14</b>	<b>Supply and Installation of Cosby Strips:</b>	no	2 000		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>				
<b>B81.04</b>	<b>Testing of road markings:</b>				
(a)	Traffic wear index tests to SABS 1248: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
(b)	Retro-reflectivity tests to SABS 1261: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					<b>220 000.00</b>

**BILL A: MARKING AND RE-MARKING OF ROADS: BENONI REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B57.15	Additional new-technology based Road Marking products	PC Sum	1		1 000 000.00
	Charge on Prime Cost Sum	%	1 000 000.00	10%	100 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL A:</b>					<b>1 100 000.00</b>

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SUMMARY AND CALCULATION OF TENDER SUM: BILL A – BENONI REGION**

1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1500:	ACCOMMODATION OF TRAFFIC	
5700:	ROAD MARKINGS	
8100:	TESTING MATERIALS AND WORKMANSHIP	220 000.00
5700:	NEW-TECHNOLOGY BASED ROAD MARKING PRODUCTS	1 100 000.00

<b>SUB TOTAL</b>	
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ADD 15% CONTINGENCIES	
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<b>SUB TOTAL</b>	
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VALUE-ADDED TAX (VAT)(15%)	
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<b>TENDER SUM CARRIED TO FORM OF OFFER</b>	
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SIGNED ON BEHALF OF TENDERER: .....



**GAUTENG PROVINCE**  
ROADS AND TRANSPORT  
REPUBLIC OF SOUTH AFRICA

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.2 BILL OF QUANTITIES**

### **BILL B: BRONKHORSTSPRUIT REGION**

**NB:** TENDERERS MUST COMPLETE THE SCHEDULE OF RATES WITH BLACK INK.

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b>SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
B13.01	<b>The Contractor's general obligations:</b>				
(d)	Establishment on site for orders smaller than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(e)	Establishment on site for orders greater than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(f)	Occupational Health and Safety (OHS File) Act, No. 85 of 1993 compliance	month	36		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 1500: ACCOMMODATION AND TRAFFIC</u></b>				
B15.01	<b>Accommodating traffic and maintaining temporary deviations:</b>				
(a)	On dual carriageways	km	100		
(b)	On single carriageways	km	470		
B15.03	<b>Temporary traffic control facilities.</b>				
(a)	Flagmen	Man-day	2 000		
B15.14	<b>Accommodation of traffic during measurement and testing work</b>	day	50		
B15.15	<b>Extra over item B15.01 for the provision of a truck mounted attenuator (TMA) and 5 ton gross mass vehicle as described in clause B1502(i)(ix)</b>	km	200		
B15.16	<b>Amber flashing lights mounted on signs</b>	no	8		
B15.17	<b>Provision of traffic safety equipment for use by the engineer</b>				
(a)	Safety jackets	no	5		
B15.18	<b>Construction Health and Safety Officer</b>	month	36		
B15.19	<b>Penalties</b>				
(a)	Fix penalty per occurrence	no		5 000	Rate Only
(b)	Time related penalty	hour		500	Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.02</b>	<b><u>SECTION B5700: ROAD MARKINGS</u></b>				
	<b>Retro-reflective paint markings for temporary road markings:</b>				
(a)	White lines (broken or unbroken)				
	(i) 100 mm wide	km	100		
	(ii) 150 mm wide	km	30		
	(iii) 200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken)				
	(i) 100 mm wide	km	150		
	(ii) 150 mm wide	km	30		
(c)	White lettering and symbols	m <sup>2</sup>	200		
(d)	Yellow lettering and symbols	m <sup>2</sup>	150		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	500		
<b>B57.06</b>	<b>Setting out and pre-marking the lines</b>	km	150		
<b>B57.08</b>	<b>Removal of existing road markings by:</b>				
(a)	Sand-blasting	m <sup>2</sup>	50		
(b)	Overpainting as temporary measure	m <sup>2</sup>	50		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>  White lines (broken or unbroken):  (a) (i) 100 mm wide (ii) 150 mm wide (iii) 200 mm wide  (b) Yellow lines (broken or unbroken):  (i) 100 mm wide (ii) 150 mm wide  (c) White lettering and symbols  (d) Yellow lettering and symbols  (e) Transverse lines, painted island and arrestor bed markings (any colour)	km km km km km m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	250 50 10 100 50 2 000 500 1 000		
<b>B57.11</b>	<b>Extra over item B57.10 to allow variance in:</b>  (a) Surface texture (b) High traffic volumes (c) High heavy vehicle volumes (d) Excessive cleaning (water jetting, compressed air, etc)	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	50 000 50 000 20 000 500		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

<b>ITEM NO</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>RATE</b>	<b>AMOUNT</b>
<b>B57.12</b>	<b>Performance-guaranteed retro-reflective road markings applied with highly durable materials:</b>				
(a)	White lines (broken or unbroken):				
	(i) 100 mm wide	km	200		
	(ii) 150 mm wide	km	50		
	(iii) 200 mm wide	km	10		
(b)	Yellow lines (broken or unbroken):				
	(i) 100 mm wide	km	150		
	(ii) 150 mm wide	km	50		
(c)	White lettering and symbols	m <sup>2</sup>	1 500		
(d)	Yellow lettering and symbols	m <sup>2</sup>	500		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	700		
<b>B57.13</b>	<b>Supply and installation of road studs:</b>				
(a)	(i) (Type as instructed by the Engineer	PC Sum	1		500 000.00
	(ii) Charge on Prime Cost Sum	%	500 000.00	10%	50 000
(b)	Installation of road studs to manufacturers' requirements:				
	(i) Stick on studs with or without a shank	no	3 000		
		no	500		
	(ii) Studs to core drilled into a bituminous surface	no	250		
	(iii) Studs to be core drilled into a concrete surface				
<b>B57.14</b>	<b>Supply and Installation of Cosby Strips:</b>	no	1 500		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>				
<b>B81.04</b>	<b>Testing of road markings:</b>				
(a)	Traffic wear index tests to SABS 1248: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
(b)	Retro-reflectivity tests to SABS 1261: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					<b>220 000.00</b>

**BILL B: MARKING AND RE-MARKING OF ROADS: BRONKHORSTSPRUIT REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B57.15	Additional new-technology based Road Marking products	PC Sum	1		1 000 000.00
	Charge on Prime Cost Sum	%	1 000 000.00	10%	100 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL B:</b>					<b>1 100 000.00</b>

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SUMMARY AND CALCULATION OF TENDER SUM: BILL B –**  
**BRONKHORSTSPRUIT REGION**

1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1500:	ACCOMMODATION OF TRAFFIC	
5700:	ROAD MARKINGS	
8100:	TESTING MATERIALS AND WORKMANSHIP	220 000.00
5700:	NEW-TECHNOLOGY BASED ROAD MARKING PRODUCTS	1 100 000.00

<b>SUB TOTAL</b>	
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ADD 15% CONTINGENCIES	
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<b>SUB TOTAL</b>	
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VALUE-ADDED TAX (VAT)(15%)	
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<b>TENDER SUM CARRIED TO FORM OF OFFER</b>	
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SIGNED ON BEHALF OF TENDERER: .....



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.2 BILL OF QUANTITIES**

### **BILL C: KRUGERSDORP REGION**

**NB:** TENDERERS MUST COMPLETE THE SCHEDULE OF RATES WITH BLACK INK.

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b>SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
B13.01	<b>The Contractor's general obligations:</b>				
(d)	Establishment on site for orders smaller than 500 m <sup>2</sup> of longitudinal line markings	km	220		
(e)	Establishment on site for orders greater than 500 m <sup>2</sup> of longitudinal line markings	km	220		
(f)	Occupational Health and Safety (OHS File) Act, No. 85 of 1993 compliance	month	36		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 1500: ACCOMMODATION AND TRAFFIC</u></b>				
<b>B15.01</b>	<b>Accommodating traffic and maintaining temporary deviations:</b>				
(a)	On dual carriageways	km	250		
(b)	On single carriageways	km	900		
<b>B15.03</b>	<b>Temporary traffic control facilities.</b>				
(a)	Flagmen	Man-day	2 000		
<b>B15.14</b>	<b>Accommodation of traffic during measurement and testing work</b>	day	50		
<b>B15.15</b>	<b>Extra over item B15.01 for the provision of a truck mounted attenuator (TMA) and 5 ton gross mass vehicle as described in clause B1502(i)(ix)</b>	km	1 000		
<b>B15.16</b>	<b>Amber flashing lights mounted on signs</b>	no	8		
<b>B15.17</b>	<b>Provision of traffic safety equipment for use by the engineer</b>				
(a)	Safety jackets	no	5		
<b>B15.18</b>	<b>Construction Health and Safety Officer</b>	month	36		
<b>B15.19</b>	<b>Penalties</b>				
(a)	Fix penalty per occurrence	no		5 000	Rate Only
(b)	Time related penalty	hour		500	Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.02</b>	<b><u>SECTION B5700: ROAD MARKINGS</u></b>				
	<b>Retro-reflective paint markings for temporary road markings:</b>				
(a)	White lines (broken or unbroken)				
	(i) 100 mm wide	km	120		
	(ii) 150 mm wide	km	30		
	(iii) 200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken)				
	(i) 100 mm wide	km	150		
	(ii) 150 mm wide	km	30		
(c)	White lettering and symbols	m <sup>2</sup>	200		
(d)	Yellow lettering and symbols	m <sup>2</sup>	150		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	500		
<b>B57.06</b>	<b>Setting out and pre-marking the lines</b>	km	150		
<b>B57.08</b>	<b>Removal of existing road markings by:</b>				
(a)	Sand-blasting	m <sup>2</sup>	50		
(b)	Overpainting as temporary measure	m <sup>2</sup>	50		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>  White lines (broken or unbroken):  (a) (i) 100 mm wide (ii) 150 mm wide (iii) 200 mm wide  (b) Yellow lines (broken or unbroken):  (i) 100 mm wide (ii) 150 mm wide  (c) White lettering and symbols  (d) Yellow lettering and symbols  (e) Transverse lines, painted island and arrestor bed markings (any colour)	km km km km m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	900 180 50 300 150 20 000 4 000 10 000		
<b>B57.11</b>	<b>Extra over item B57.10 to allow variance in:</b>  (a) Surface texture (b) High traffic volumes (c) High heavy vehicle volumes (d) Excessive cleaning (water jetting, compressed air, etc)	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	75 000 75 000 75 000 1 000		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.12</b>	<b>Performance-guaranteed retro-reflective road markings applied with highly durable materials:</b>				
(a)	White lines (broken or unbroken):				
(i)	100 mm wide	km	500		
(ii)	150 mm wide	km	100		
(iii)	200 mm wide	km	60		
(b)	Yellow lines (broken or unbroken):				
(i)	100 mm wide	km	500		
(ii)	150 mm wide	km	100		
(c)	White lettering and symbols	m <sup>2</sup>	5 000		
(d)	Yellow lettering and symbols	m <sup>2</sup>	3 000		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	1 000		
<b>B57.13</b>	<b>Supply and installation of road studs:</b>				
(a)	(i) (Type as instructed by the Engineer	PC Sum	1		500 000.00
	(ii) Charge on Prime Cost Sum	%	500 000.00	10%	50 000
(b)	Installation of road studs to manufacturers' requirements:				
	(i) Stick on studs with or without a shank	no	4 000		
		no	500		
	(ii) Studs to core drilled into a bituminous surface	no	250		
	(iii) Studs to be core drilled into a concrete surface				
<b>B57.14</b>	<b>Supply and Installation of Cosby Strips:</b>	no	2 000		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>				
<b>B81.04</b>	<b>Testing of road markings:</b>				
(a)	Traffic wear index tests to SABS 1248: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
(b)	Retro-reflectivity tests to SABS 1261: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					<b>220 000.00</b>

**BILL C: MARKING AND RE-MARKING OF ROADS: KRUGERSDORP REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B57.15	Additional new-technology based Road Marking products	PC Sum	1		1 000 000.00
	Charge on Prime Cost Sum	%	1 000 000.00	10%	100 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL C:</b>					<b>1 100 000.00</b>



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SUMMARY AND CALCULATION OF TENDER SUM: BILL C – KRUGERSDORP REGION**

1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1500:	ACCOMMODATION OF TRAFFIC	
5700:	ROAD MARKINGS	
8100:	TESTING MATERIALS AND WORKMANSHIP	220 000.00
5700:	NEW-TECHNOLOGY BASED ROAD MARKING PRODUCTS	1 100 000.00

<b>SUB TOTAL</b>	
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ADD 15% CONTINGENCIES	
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<b>SUB TOTAL</b>	
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VALUE-ADDED TAX (VAT)(15%)	
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<b>TENDER SUM CARRIED TO FORM OF OFFER</b>	
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SIGNED ON BEHALF OF TENDERER: .....



**GAUTENG PROVINCE**  
ROADS AND TRANSPORT  
REPUBLIC OF SOUTH AFRICA

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A  
PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.2 BILL OF QUANTITIES**

### **BILL D: PRETORIA REGION**

**NB:** TENDERERS MUST COMPLETE THE SCHEDULE OF RATES WITH BLACK INK.

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b>SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
B13.01	<b>The Contractor's general obligations:</b>				
(d)	Establishment on site for orders smaller than 500 m <sup>2</sup> of longitudinal line markings	km	220		
(e)	Establishment on site for orders greater than 500 m <sup>2</sup> of longitudinal line markings	km	220		
(f)	Occupational Health and Safety (OHS File) Act, No. 85 of 1993 compliance	month	36		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 1500: ACCOMMODATION AND TRAFFIC</u></b>				
B15.01	<b>Accommodating traffic and maintaining temporary deviations:</b>				
(a)	On dual carriageways	km	130		
(b)	On single carriageways	km	670		
B15.03	<b>Temporary traffic control facilities.</b>				
(a)	Flagmen	Man-day	2 200		
B15.14	<b>Accommodation of traffic during measurement and testing work</b>	day	50		
B15.15	<b>Extra over item B15.01 for the provision of a truck mounted attenuator (TMA) and 5 ton gross mass vehicle as described in clause B1502(i)(ix)</b>	km	1 000		
B15.16	<b>Amber flashing lights mounted on signs</b>	no	8		
B15.17	<b>Provision of traffic safety equipment for use by the engineer</b>				
(a)	Safety jackets	no	5		
B15.18	<b>Construction Health and Safety Officer</b>	month	36		
B15.19	<b>Penalties</b>				
(a)	Fix penalty per occurrence	no		5 000	Rate Only
(b)	Time related penalty	hour		500	Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.02</b>	<b><u>SECTION B5700: ROAD MARKINGS</u></b>				
	<b>Retro-reflective paint markings for temporary road markings:</b>				
(a)	White lines (broken or unbroken)				
	(i) 100 mm wide	km	100		
	(ii) 150 mm wide	km	30		
	(iii) 200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken)				
	(i) 100 mm wide	km	150		
	(ii) 150 mm wide	km	30		
(c)	White lettering and symbols	m <sup>2</sup>	200		
(d)	Yellow lettering and symbols	m <sup>2</sup>	150		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	500		
<b>B57.06</b>	<b>Setting out and pre-marking the lines</b>	km	150		
<b>B57.08</b>	<b>Removal of existing road markings by:</b>				
(a)	Sand-blasting	m <sup>2</sup>	50		
(b)	Overpainting as temporary measure	m <sup>2</sup>	50		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>  White lines (broken or unbroken):  (a) (i) 100 mm wide (ii) 150 mm wide (iii) 200 mm wide  (b) Yellow lines (broken or unbroken):  (i) 100 mm wide (ii) 150 mm wide  (c) White lettering and symbols  (d) Yellow lettering and symbols  (e) Transverse lines, painted island and arrestor bed markings (any colour)	km km km km m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	1 000 120 70 300 50 20 000 4 000 10 000		
<b>B57.11</b>	<b>Extra over item B57.10 to allow variance in:</b>  (a) Surface texture (b) High traffic volumes (c) High heavy vehicle volumes (d) Excessive cleaning (water jetting, compressed air, etc)	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	75 000 85 000 70 000 1 000		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.12</b>	<b>Performance-guaranteed retro-reflective road markings applied with highly durable materials:</b>				
(a)	White lines (broken or unbroken):				
(i)	100 mm wide	km	320		
(ii)	150 mm wide	km	60		
(iii)	200 mm wide	km	30		
(b)	Yellow lines (broken or unbroken):				
(i)	100 mm wide	km	270		
(ii)	150 mm wide	km	50		
(c)	White lettering and symbols	m <sup>2</sup>	4 000		
(d)	Yellow lettering and symbols	m <sup>2</sup>	1 000		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	1 000		
<b>B57.13</b>	<b>Supply and installation of road studs:</b>				
(a)	(i) (Type as instructed by the Engineer	PC Sum	1		500 000.00
	(ii) Charge on Prime Cost Sum	%	500 000.00	10%	50 000
(b)	Installation of road studs to manufacturers' requirements:				
	(i) Stick on studs with or without a shank	no	4 000		
		no	500		
	(ii) Studs to core drilled into a bituminous surface	no	250		
	(iii) Studs to be core drilled into a concrete surface				
<b>B57.14</b>	<b>Supply and Installation of Cosby Strips:</b>	no	1 700		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>				
<b>B81.04</b>	<b>Testing of road markings:</b>				
(a)	Traffic wear index tests to SABS 1248: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
(b)	Retro-reflectivity tests to SABS 1261: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					<b>220 000.00</b>

**BILL D: MARKING AND RE-MARKING OF ROADS: PRETORIA REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B57.15	Additional new-technology based Road Marking products	PC Sum	1		1 000 000.00
	Charge on Prime Cost Sum	%	1 000 000.00	10%	100 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL D:</b>					<b>1 100 000.00</b>

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SUMMARY AND CALCULATION OF TENDER SUM: BILL D – PRETORIA REGION**

1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1500:	ACCOMMODATION OF TRAFFIC	
5700:	ROAD MARKINGS	
8100:	TESTING MATERIALS AND WORKMANSHIP	220 000.00
5700:	NEW-TECHNOLOGY BASED ROAD MARKING PRODUCTS	1 100 000.00

<b>SUB TOTAL</b>	
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ADD 15% CONTINGENCIES	
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<b>SUB TOTAL</b>	
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VALUE-ADDED TAX (VAT)(15%)	
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<b>TENDER SUM CARRIED TO FORM OF OFFER</b>	
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SIGNED ON BEHALF OF TENDERER: .....



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **Part C2.2 BILL OF QUANTITIES**

### **BILL E: VEREENIGING REGION**

**NB:** TENDERERS MUST COMPLETE THE SCHEDULE OF RATES WITH BLACK INK.

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b>SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
B13.01	<b>The Contractor's general obligations:</b>				
(d)	Establishment on site for orders smaller than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(e)	Establishment on site for orders greater than 500 m <sup>2</sup> of longitudinal line markings	km	200		
(f)	Occupational Health and Safety (OHS File) Act, No. 85 of 1993 compliance	month	36		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 1500: ACCOMMODATION AND TRAFFIC</u></b>				
B15.01	<b>Accommodating traffic and maintaining temporary deviations:</b>				
(a)	On dual carriageways	km	100		
(b)	On single carriageways	km	650		
B15.03	<b>Temporary traffic control facilities.</b>				
(a)	Flagmen	Man-day	2 200		
B15.14	<b>Accommodation of traffic during measurement and testing work</b>	day	50		
B15.15	<b>Extra over item B15.01 for the provision of a truck mounted attenuator (TMA) and 5 ton gross mass vehicle as described in clause B1502(i)(ix)</b>	km	1 000		
B15.16	<b>Amber flashing lights mounted on signs</b>	no	8		
B15.17	<b>Provision of traffic safety equipment for use by the engineer</b>				
(a)	Safety jackets	no	5		
B15.18	<b>Construction Health and Safety Officer</b>	month	36		
B15.19	<b>Penalties</b>				
(a)	Fix penalty per occurrence	no		5 000	Rate Only
(b)	Time related penalty	hour		500	Rate Only
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.02</b>	<b><u>SECTION B5700: ROAD MARKINGS</u></b>				
	<b>Retro-reflective paint markings for temporary road markings:</b>				
(a)	White lines (broken or unbroken)				
	(i) 100 mm wide	km	100		
	(ii) 150 mm wide	km	30		
	(iii) 200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken)				
	(i) 100 mm wide	km	150		
	(ii) 150 mm wide	km	30		
(c)	White lettering and symbols	m <sup>2</sup>	200		
(d)	Yellow lettering and symbols	m <sup>2</sup>	150		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	500		
<b>B57.06</b>	<b>Setting out and pre-marking the lines</b>	km	150		
<b>B57.08</b>	<b>Removal of existing road markings by:</b>				
(a)	Sand-blasting	m <sup>2</sup>	50		
(b)	Overpainting as temporary measure	m <sup>2</sup>	50		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>  White lines (broken or unbroken):  (a) (i) 100 mm wide (ii) 150 mm wide (iii) 200 mm wide  (b) Yellow lines (broken or unbroken):  (i) 100 mm wide (ii) 150 mm wide  (c) White lettering and symbols  (d) Yellow lettering and symbols  (e) Transverse lines, painted island and arrestor bed markings (any colour)	km km km km m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	650 100 20 150 50 17 000 4 000 10 000		
<b>B57.11</b>	<b>Extra over item B57.10 to allow variance in:</b>  (a) Surface texture (b) High traffic volumes (c) High heavy vehicle volumes (d) Excessive cleaning (water jetting, compressed air, etc)	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	75 000 85 000 70 000 1 000		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>B57.12</b>	<b>Performance-guaranteed retro-reflective road markings applied with highly durable materials:</b>				
(a)	White lines (broken or unbroken):				
(i)	100 mm wide	km	200		
(ii)	150 mm wide	km	50		
(iii)	200 mm wide	km	20		
(b)	Yellow lines (broken or unbroken):				
(i)	100 mm wide	km	200		
(ii)	150 mm wide	km	50		
(c)	White lettering and symbols	m <sup>2</sup>	4 000		
(d)	Yellow lettering and symbols	m <sup>2</sup>	1 000		
(e)	Transverse lines, painted island and arrestor bed markings (any colour)	m <sup>2</sup>	1 000		
<b>B57.13</b>	<b>Supply and installation of road studs:</b>				
(a)	(i) (Type as instructed by the Engineer	PC Sum	1		500 000.00
	(ii) Charge on Prime Cost Sum	%	500 000.00	10%	50 000
(b)	Installation of road studs to manufacturers' requirements:				
	(i) Stick on studs with or without a shank	no	5 000		
		no	500		
	(ii) Studs to core drilled into a bituminous surface	no	250		
	(iii) Studs to be core drilled into a concrete surface				
<b>B57.14</b>	<b>Supply and Installation of Cosby Strips:</b>	no	1 700		
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>				
<b>B81.04</b>	<b>Testing of road markings:</b>				
(a)	Traffic wear index tests to SABS 1248: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
(b)	Retro-reflectivity tests to SABS 1261: 1998:				
	(i) Cost of testing	PC Sum	1		100 000.00
	(ii) Charge on Prime Cost Sum	%	100 000	10%	10 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					<b>220 000.00</b>

**BILL E: MARKING AND RE-MARKING OF ROADS: VEREENIGING REGION**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B57.15	Additional new-technology based Road Marking products	PC Sum	1		1 000 000.00
	Charge on Prime Cost Sum	%	1 000 000.00	10%	100 000.00
<b>TOTAL CARRIED FORWARD TO SUMMARY OF BILL E:</b>					<b>1 100 000.00</b>

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SUMMARY AND CALCULATION OF TENDER SUM: BILL E – VEREENIGING REGION**

1300:	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1500:	ACCOMMODATION OF TRAFFIC	
5700:	ROAD MARKINGS	
8100:	TESTING MATERIALS AND WORKMANSHIP	220 000.00
5700:	NEW-TECHNOLOGY BASED ROAD MARKING PRODUCTS	1 100 000.00

<b>SUB TOTAL</b>	
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ADD 15% CONTINGENCIES	
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<b>SUB TOTAL</b>	
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VALUE-ADDED TAX (VAT)(15%)	
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<b>TENDER SUM CARRIED TO FORM OF OFFER</b>	
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SIGNED ON BEHALF OF TENDERER: .....

**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **C3: SCOPE OF WORKS**

### **PART C3: SCOPE OF WORKS**

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**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**SECTION A: STANDARD AMENDMENTS ISSUED BY COLTO**

**Notes to tenderer:**

1. The Standard Specifications for Road and Bridge Works for State Road Authorities (1998 edition) prepared by the Committee of Land Transport Officials, (COLTO), as amended, shall apply to this contract. The amendments are those issued by COLTO and reproduced in Section A, together with additional amendments as set out in Section B.
2. Where reference is made to the General Conditions of Contract and sub-clauses thereof in the abovementioned Standard Specifications, they refer to the appropriate edition of the 'General Conditions of Contract for Road and Bridge Works for State Road Authorities' issued by COLTO (clause 1115 of the Standard Specifications refers).
3. The General Conditions of Contract applicable to this contract are the "Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer" (1999), issued by the International Federation of Consulting Engineers (FIDIC) and the necessary amendments to the Standard Specifications have been made and included in the Project Specifications contained in this document.
4. The terms "Schedule of Quantities", (used throughout the Standard Specifications) and "Bill of Quantities", (used in all other documents forming part of this contract), and "Pricing Schedule" are synonymous.

As at time of this tender no amendments have been issued.

## **SECTION B: PROJECT SPECIFICATION AMENDMENTS TO THE PROJECT SPECIFICATION**

### **Notes to tenderer:**

1. In certain clauses the Standard Specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications required for this particular contract.
2. The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new series, new clause or a new payment item which does not form part of a series, clause or a payment item in the standard specifications and which is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.
3. The tenderer shall note that the standard COLTO specification is based on the COLTO General Conditions of Contract. References to specific COLTO General Conditions of Contract clauses will need to be exchanged for the equivalent clause in the FIDIC Conditions of Contract as amended by the Particular Conditions of Contract to be found in Part C1 of this document. The employer assumes no responsibility for the contractor's interpretation of which is the correct relevant clauses.

## PROJECT SPECIFICATIONS

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## COLTO SERIES 1000: GENERAL

### SECTION B1100: DEFINITIONS AND TERMS

#### B1115 GENERAL CONDITIONS OF CONTRACT

*Replace Clause 1115 with the following:*

The General Conditions applicable to this Contract are the FIDIC Conditions of Contract for Construction for Building and Engineering Works designed by the Employer, 1st Edition 1999.

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

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

### CHANGES TO REFERENCES BY THE COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND FIDIC GENERAL CONDITIONS

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		FIDIC Conditions of Contract for Construction 1st edition 1999	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference
1115	1100-2		Definition of GCC		Definition of FIDIC
1204	1200-2	15	Construction programme	8.3	Construction programme
1204	1200-2		General reference to GCC		Applicable to FIDIC
1206	1200-3	14	Setting out of works	4.7	Setting out of works
1209(a)	1200-4		General references to GCC		Applicable to FIDIC
1209(e)	1200-5	52(2)	Valuation of material brought onto site	14.5	Plant and material intended for use in the works.
1210	1200-5	54(1)	Certificate of practical completion	10.1	Taking-over certificate
1212(1)	1200-7	49(2)	CPA on alternative designs	13.8	CPA on alternative designs
1215	1200-9	45(2)	Extension of time for completion due to abnormal rainfall.	8.4	Extension of time for completion due to abnormal rainfall.
1217	1200-10	35	Care of the works	17.2	Care of the works
1303(ii)	1300-1		General reference to GCC		Applicable to FIDIC
1303(iii)	1300-1	49	Price adjustment Item 13.01(a)	13.7&13.8	Price adjustment Item 13.01(a)
1303(iii)	1300-2	49	Price adjustment Item 13.01(b)	13.7&13.8	Price adjustment Item 13.01(b)
1303(iii)	1300-1	53	Variations exceeding 20%		Not applicable to this contract
1303(iii)	1300-2	53	Variations exceeding 20%		Not applicable to this contract
1303	1300-2	12	Payment Item 13.01(c)	8.1	Payment Item 13.01(c)
1303	1300-2	45	Payment Item 13.01(c)	8.4	Payment Item 13.01(c)
1403(c)(ii)	1400-4	40(1)	Variation for rented accommodation	13.3	Variation for rented accommodation
1505	1500-3	40(1)	Variation for temporary drainage	13.3	Variation for temporary drainage
Item 15.08	1500-8	48	Payment of Provisional Sum	13.5	Payment of Provisional Sum
Item 15.09	1500/8	48	Payment of Provisional Sum	13.5	Payment of Provisional Sum
Item 15.11	1500-8	48	Payment of Provisional Sum	13.5	Payment of Provisional Sum
Note (2)	3100-4	40	Payment for prospecting for materials	13.5	Payment for prospecting for materials
3204(b)(iii)	3200-2	40	Payment for oversize material	13.3	Payment for oversize material
3303(b)	3300-2	2	Engineer's decisions, with reference to materials classification	3	Engineer's decisions, with reference to materials classification
Item 44.06	4400-3		General reference to GCC, PC Sums	13.5	Provisional Sums in FIDIC
Item 45.06	4500-3		General reference to GCC, PC Sums	13.5	Provisional Sums in FIDIC
5803(c)	5800-3	40	Variation, for landscaping	13.3	Variation, for landscaping
5805(d)	5800-4	40	Variation, for grassing	13.3	Variation, for grassing

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		FIDIC Conditions of Contract for Construction 1st edition 1999	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference
Item 58.10	5800-10	48	Payment for Extra Work	13.5	Payment for Extra Work
8103(c)	8100-1	40	Variation, for testing material	13.3	Variation, for testing material
Item 81.02	8100-26		General reference to GCC, Provisional Sums		Applicable to FIDIC, Provisional Sums
Item 81.03	8100-26	22	Clearance of site on completion, with reference to core drilling	11.11	Clearance of site on completion, with reference to core drilling

*Add the following clause:*

## **B1156 OTHER DEFINITIONS**

The COLTO Standard Specifications for Roads and Bridge Works for State Road Authorities (1998 edition) has been written for all contractors, employers and engineers. Similarly, the works and the site are not defined and the general nature of the entities and elements that collectively constitute construction under a contract are characterized by the use of lower case letters throughout.

These project specifications continue to use lowercase spellings in order to avoid the appearance of the capitalised and non-capitalised words to describe or prescribe the same elements of work required on this project. However, for the purposes of this contract the following definitions shall apply:

### Contractor

The Contractor and the contractor is the same persona defined under clause 1.1.2.3 of the FIDIC Conditions of Contract, but who will only be formally identified by the completed Form of Acceptance C1.1.2 in this document and which will be bound into the final contract document.

### Employer

The Employer and employer is the same persona and is defined in C1.2.2 Contract Data, and clause 1.1.2.2 of the FIDIC Conditions of Contract.

### Engineer

The Engineer and engineer is the same persona and is defined in the C1.2.2 Contract Data, and clause 1.1.2.4 of the FIDIC Conditions of Contract.

### Site

The site is defined in clause 1.1.6.7 of the FIDIC Conditions of Contract. It is bound by the limits of construction as shown in the drawings or the title of the project and extends to also include the following:

- Areas outside the construction zone areas where accommodation of traffic is placed.
- All borrowpits defined in the applications approved by the relevant Department of Minerals and Energy.
- All haul roads constructed by the contractor for purposes of access.
- Any non-adjacent sites specified in the contract documentation.
- The contractors and his subcontractors camp sites

### Works

The works is described in Part C4 of this document and is as defined in clause 1.1.5.8 of the FIDIC Conditions of Contract and prescribed in Sections B, C & D of this Volume.

## SECTION B1200: GENERAL REQUIREMENTS AND PROVISIONS

### B1204 PROGRAMME OF WORK

#### (a) General requirements

*Replace the first paragraph with the following:*

"The contractor shall base his initial programme of work for a specific order on the scope of works as indicated by the project manager or project manager's representative at that stage. This programme shall be revised based on the scope of works as contained in the official order."

*Add the following subclause:*

#### (c) Execution

The following must be followed in the execution of the works:

- (i) **The project manager or project manager's representative shall inform the contractor of the scope of works pertaining to a particular section of a road or different road sections within the same administrative region.**
- (ii) **The contractor shall inspect the identified site or sites and agree the classification of the different sites with the project manager and prepare an estimate of quantities, monetary value and contract period for executing the work on this site/sites. A cost estimate shall be prepared and submitted in a form acceptable to the engineer and priced in terms of the relevant contract rates and prices.**
- (iii) **The project manager or project manager's representative shall receive this estimate priced Bill of Quantities, consider the availability of funds and the proposed construction period. No work shall be done unless an approved estimate priced Bill of Quantities has been issued by the employer. The contractor shall also not be allowed to commence with any work until such time as he has entered into agreement with the employer in terms of the Occupational Health and Safety Act, 1993.**
- (iv) **The contractor shall then programme the work pertaining to a particular order to start within the required response time and to be completed by the due completion date. The programme shall be prepared in terms of working days and be approved by the Employer before work commence.**
- (v) **The contractor shall execute the works in compliance with the specifications and with due regard of the total amount of the approved Bill of Quantities. Should the contractor find that the scope of work or the quantities required to affect the necessary work included in the specific order would result in an over expenditure on that Bill of Quantities, he shall inform the project manager or project manager's representative timeously. No over expenditure on a particular Bill of Quantities shall be accommodated unless the project manager or project manager's representative had been informed timeously of the possible over-expenditure and had been given the opportunity to review the scope of works for that particular Bill of Quantities with the view of adjusting it to remain within the Bill of Quantities amount or to initiate alternative measures available within the Provincial Financial System. Such alternative measures may include the issue of a supplementary Bill of Quantities to conclude the work included in the original scope of works, if approved by the project manager.**

- (vi) No work shall be done if the environmental conditions are such that the quality of the work will be detrimentally affected or will constitute a hazard to the motoring public.
- (vii) Should conditions outside of the control of the Contractor be encountered on site which would materially influence the production by the Contractor, the Contractor may claim for an extension of time. Such a claim shall in all respects comply with the requirements in the Conditions of Contract.

The length of the extension of time claimed, shall be based on the minimum production rates quoted in the attached form, or on the production rate implied by the Contractor in his programme for that particular order, whichever gives the shorter possible extension of time period.

## **B1205 WORKMANSHIP AND QUALITY CONTROL**

*Add the following after the title:*

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

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

*Replace the third paragraph with the following:*

"The intensity of control and of tests to be conducted by the contractor in terms of these obligations shall be at least to a sample level of 5 % of the total works contained in that specific order or such higher sample level to ensure that proper control is being exercised."

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

*Replace "clause 14" in the first paragraph with "clause 4.7"*

*Delete "and of clause 14 of the general conditions of contract" in the sixth paragraph.*

*Add the following paragraph:*

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

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

## **B1209 PAYMENT**

### **(b) Rates to be inclusive**

*Add the following to the first paragraph:*

"VAT shall be excluded from the rates."

**B 1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL**

*Delete clause 1215 and replace it with the following.*

**"B 1215 EXTENSION OF TIME**

Extension of time in terms of Clause 8.4 of the Conditions of Contract shall be determined by mutual agreement between the engineer and the contractor. Delays on working days only (based on a six-day working week) and excluding non-working days as indicated in the Appendix will be taken into account for the determination of the extension of time."

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

*Add the following subclause:*

"The road reserves of all the roads to be fog sprayed under this contract will be handed over to the contractor after receipt by the contractor of the official order from the employer for such a time as indicated in the programme of work or such extended period as approved by the engineer.

The occupation of the road reserves of the roads to be fog sprayed shall be limited to those sections as directed by the engineer. The contractor will be permitted to work on any portion of the road within the specified limits provided that a free and safe flow of traffic is maintained at all times and that the requirements of the Specifications are complied with. No work may be undertaken on any section of road without an official order from the engineer."

**B 1227 MONTHLY SITE MEETINGS**

*Add the following:*

"The venue of such site meetings shall be determined by the engineer."

*Add the following clauses:*

**"B 1230 REPORTING OF ACCIDENTS**

The contractor shall report every accident which occurs on the road, within the extent of the Works, to the engineer, within twenty-four (24) hours of such accident occurring, irrespective of whether such accident has a bearing on damage to the Works or to persons, property or things. The report must be in writing and must contain full particulars of the accident. Photographs of each accident should also be included in the report. The contractor shall include and submit the reports with his payment certificates to the engineer. The engineer has the right to conduct, or have conducted, any or all enquiries, either on the site or elsewhere, as to the causes and consequences of any such accident."

**B1231 MATERIALS**

The contractor, when using materials that are required to comply with any standard specification, shall, if so ordered, furnish the engineer with certificates showing that the materials do comply with this specification.

Where so specified, materials shall bear the official mark of the appropriate authority. Samples ordered or specified shall be delivered to the engineer's office site free of charge.

Where materials are specified under trade names tenders must be based on these materials.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's current published instructions. Agrément certified products shall be used and placed in accordance with its Agrément certification criteria.

All places where materials are being manufactured or obtained for use in the works, and all the processes in their entirety connected therewith shall be open to inspection by the engineer (or other persons authorised by the engineer) at all reasonable times, and the engineer shall be at liberty to suspend any portion of work which is not being executed in conformity with these specifications."

**SECTION B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**

**B1302 GENERAL REQUIREMENTS**

**(c) Legal and Contractual Requirements and responsibilities to the public**

*Add the following:*

"Legislation imposes mutual obligations on the employer and contractor in the performance of their duties to society and to the built and natural environment. To assist the contractor in understanding and assessing his obligations, and thus to make allowances for the cost of compliance with this legislation, the following additional specifications are included in the project specifications.

Section C of the Scope of Works contains the Environmental Management Plan for this project. Its provisions regulate the contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. No separate payment mechanism has been made available for the contractor to allow for his compliance with relevant environmental legislation. The contractor shall include such costs in the existing payment items under section B1303: Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties by the relevant authority.

Section D of the Scope of Works contains the specifications that regulate the contractor's construction methods so far as to ensure health and safety of his employees and of the public. A new pay item has been made available under this section to allow the contractor to make separate provision for the cost of health and safety measures during the construction process."

**B1303 PAYMENT**

<b>Item</b>	<b>Unit</b>
-------------	-------------

**B13.01 The contractor's general obligations**

*Add the following subitems:*

- "(d) Establishment on site for orders less than 500 m<sup>2</sup> of longitudinal line markings ..... Unit: km
- (e) Establishment on site for orders larger than 500 m<sup>2</sup> of longitudinal line markings..... Unit: km"

*Replace the first paragraph with the following:*

"The unit of measurement shall be the distance in kilometre measured in a straight line between the regional office of the employer closest to the site of the works and the specified base of the Contractor.

Payment of the sum tendered for subitem (d) shall include the compensation to the Contractor for such charges as indicated hereafter and which would not be reasonably recovered from the tendered rates for the fog spray on an order of this size."

*Delete "subitems (a), (b) and (c)" in all the Measurement and Payment paragraphs.*

*Add the following pay subitem:*

“(f) Health and safety obligation .....month”

The unit of measurement shall be per month.

The tendered rate shall include full compensation for compliance with the Occupational Health and Safety (OH&S) Act, No. 85 of 1993 and it covers all aspects of occupational health and safety as affected by this contract.

The tendered rate per month for subitem B13.01 (f) will be paid monthly, pro rata for parts of a month, from the date on which the contractor has received the Letter of Acceptance, until the end of the period of completion of the works, plus any extension thereof as provided in clause 8.4 of the conditions of contract.”

*Add the following sub-sub-clause defining ‘the contractor’s general obligations’:*

“(v) Complying with the requirements and conditions of the additional specifications relating to the Environmental Management Plan.”

## SECTION B1500: ACCOMMODATION OF TRAFFIC

### B1501 SCOPE

*Add the following:*

"It is a condition of this contract that traffic is accommodated taking into account the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is volume 2, chapter 13 of the June 1999 edition. Copies of this publication are available from Government Printers –Tel: (012) 334 4507/8/9 or (012) 3344510 Fax: (012) 323 9574.

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

### B1502 GENERAL REQUIREMENTS

#### (a) Safety

*Replace the full stop at the end of the first paragraph and continue with the following:*

"... flow of traffic, including the prohibition of his, and his subcontractor's, construction plant from disregarding the stop/go accommodation of traffic control facilities. Failure to comply with this requirement shall be taken as a penalty event in terms of B1502 (l)."

*Add the following after the first paragraph:*

"Should the contractor park any of his construction plant within the road reserve at night, it shall be done in such a way that the vehicle is more than 5 m away from the shoulder of the road and it shall be properly illuminated and signposted to ensure safe passing by motorists."

#### (f) Approval of temporary deviations

*Add the following:*

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

#### (i) Traffic Safety Officer

*Add the following to the end of the second paragraph:*

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

*Insert the following as the opening phrase to sub-sub-clause (i):*

"make himself available to discuss road safety and traffic accommodation matters whenever required by the engineer during the official construction period as specified in each specific order and shall be responsible..."

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

"(ii) Record on neat and dimensioned sketches and submit to the engineer the position and sign reference number, where applicable, of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The position of each shall be

adequately referenced from the marker boards or other surveyed points on the site of the works.

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

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

- (iii) Personally, inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 09h30 and by 16h30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the engineer such record sheets by midday of the next working day. The traffic safety officer shall keep a duplicate book for this specific purpose.

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

*Add the following sub-sub-clauses:*

- "(ix) The traffic safety officer shall be equipped with a cellular telephone and shall have a traffic safety vehicle and sufficient labour at his disposal 24 hours a day, including all prescribed non-working days, and shall not be utilised for other duties. He shall be directly answerable to the contractor's site agent. The traffic safety officer shall have his own vehicle to carry out inspections and at least one assistant to accompany him full time. Furthermore the traffic safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel in accordance with the requirements of the SARTSM as well as a truck mounted attenuator – ALPHA 70 K as supplied by Armco Road Safety Products, or similar approved complying with TL-2 criteria when tested in accordance with NCHRP 350 or N1 criteria when tested in accordance with EN 1317; certification of compliance to be provided by the contractor at the request of the engineer. The attenuator shall be used when the vehicle is utilized to close traffic lanes or when attending to stationary or broken-down vehicles or accident scenes. The words TRAFFIC CONTROL shall be written on a warning sign in highly legible letters, not less than 150 mm high, and the sign shall be mounted on both the traffic safety officer's vehicle and the traffic safety vehicle at least 1,5 m above ground level. The proposed sign and letter dimensions shall be submitted to the engineer for his approval.

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

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

Each working area operating under single direction traffic control shall be equipped with two working "walkie-talkie" radios, one at each end of the working area.

- (x) Ensure that all obstructions related to the contractor's activities be removed before nightfall where applicable as instructed by the engineer and that the roads are safe for night traffic.

- (xi) The traffic safety officer shall, in addition to the duties listed in paragraph 1502(i), also be responsible for the removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.
- (xii) In the advent of an accident the traffic officer shall record in a written report the details of the accident, record the position of all temporary road signs, barricades, delineators, flagmen and any other devices used for traffic accommodation. In addition, the report shall include a neat dimensional sketch, photographs, identifiable permanent features, and any other relevant information.”

*Add the following sub-clauses:*

**“(j) Crossing the median or carriageway centreline**

No vehicle or item of equipment shall be allowed to cross the median of a dual carriageway road or the centreline of a single carriageway unless the traffic accommodation and signage specifically allows for this and is approved by the engineer as safe.

**(k) Site personnel**

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

**(l) Penalty events**

Whenever the following events occur, the contractor shall be subjected to penalty conditions expressed in the Appendix to Tender.

**(i) Noncompliance with accommodation of traffic specifications**

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

A fixed penalty of R5 000, 00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition, a time-related penalty of R500, 00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after the engineer has given an instruction to this effect. The engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

**B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES**

*Add the following before the first paragraph:*

"All temporary road signs, devices, sequences, layouts and spacings shall comply with the requirements of the National Road Traffic Act, 1996 (Act 93 of 1996) and the National Road Traffic Regulations 2000, the requirements of the relevant authority the SA Road Traffic Signs Manual, Vol 2, Chapter 13 : Roadworks Signing and the Drawings."

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

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

*Replace the third paragraph with the following:*

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

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

**(b) Road signs and barricades**

*Add the following:*

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

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

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

**(c) Channelisation devices and barricades**

*Add the following:*

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

TW 401 and TW 402 delineators shall comply with the following requirements:

- (i) It shall be manufactured from a flexible material and should comply with SANS 1555. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilised by means of sandbags when used on the road.
- (ii) The blade shall be retro-reflectorized, with class I yellow sheeting on the side facing oncoming traffic.
- (iii) It shall be nominally 1 000 mm high x 250 mm wide and the bottom edge of the delineator shall not be more than 200 mm above the road surface.
- (iv) It shall be subject to the approval of the engineer.
- (v) be capable of withstanding the movement of passing vehicles and gusting winds up to 60 km/h in typical working conditions without falling over. To achieve this, the base shall be at least 0,18 m<sup>2</sup> and ballasted by sandbags with sand;
- (vi) together with its mounting be designed such that it will collapse in a safe manner under traffic impact.

Traffic cones shall comply with the following requirements:

- (i) Traffic cones may be used only at short term lane deviations during daylight.
- (ii) Cones shall not be used on their own but shall be interspersed with delineators at a ratio not exceeding 3:1.
- (iii) Cones used on all deviations shall be 750mm high.
- (iv) Lane closures which continue into the night time shall be demarcated by delineators only.
- (v) They shall be manufactured from a flexible material and be fluorescent orange in colour.
- (vi) The base of the cone shall be non-circular to limit any rolling action should the cone be up-ended.
- (vii) Whenever cones will be used in times of restricted visibility the cones shall be fitted with white retro-reflective sleeves.
- (viii) The maximum spacing between centres of delineators or cones shall be as shown on the Drawings or as directed by the engineer."

#### **(e) Warning devices**

*Add the following:*

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

##### **(i) Vehicle mounted flashing lights**

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

accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic

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

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

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

(ii) Sign mounted flashing lights

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

*Add the following sub-clauses:*

**"(g) Other traffic control measures ordered by the engineer**

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

**(h) Flagmen**

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

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

Flagmen shall have in their possession, at all times, certification that they have attended and passed an accredited course in flagging techniques before being allowed onto the construction site.

Flags shall be made from bright red or red-orange material and shall be square with a minimum side length of 600 mm. The flag shall be attached to a staff at least 1,0 m in length.

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

**(i) Safety vests**

The contractor shall provide the engineer and visitors with safety vests for moving around on site. The vests shall be fluorescent orange in colour with reflective material sewn onto it and shall be to the approval of the engineer.

No separate payment will be made for the safety vests and full compensation therefore shall be deemed to be included in the rates tendered for Section 5700."

**(j) Retro-reflective material**

Retro-reflective material for temporary signs shall comply with the requirements of SANS 1519 for weathered material. Tests shall be carried out with a field retro reflectometer. The testing procedure and classification are described in Clause B8118."

**B1517 MEASUREMENT AND PAYMENT**

*Amend item 15.01 to read as follows:*

<b>“Item</b>	<b>Unit</b>
<b>B15.01 Accommodating traffic and maintaining temporary deviations:</b>	
(a) On dual carriageways .....	
(a)	kilometre (km)
(b) On single carriageways .....	
(b)	kilometre (km)

*Replace the first paragraph with the following:*

"The unit of measurement shall be the kilometre, measured along the centre lines of the road where work is carried out. Accommodation of traffic shall be measured once only.

<b>Item</b>	<b>Unit</b>
<b>B15.03 Temporary traffic control facilities</b>	
<i>Add the following:</i>	

<b>“(a) Flagmen</b>	.....	<b>Man-day</b>
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"The unit of measurement shall be a full day and night worked by flagmen. A man-day shall be deemed to comprise of three eight hour shifts in a twenty-four-hour period. Three shifts of eight hours per flagman equates to one man-day. Shorter single portion shifts (6 to 10 hours) shall be measured as a half man-day."

<b>Item</b>	<b>Unit</b>
<b>B15.14 Accommodation of traffic during measurement and testing work</b>	
<i>Add the following:</i>	

Accommodation of traffic.....	day
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"The unit of measurement shall be a full day. A day shall be deemed to comprise of eight hours. Shorter single portions of hours shall be measured as hours per day."

*Add the following pay items:*

Item	Unit
<b>B15.15      Extra over item B15.01 for the provision of a truck-mounted attenuator (TMA) and a 5 ton gross mass vehicle as described in Clause B1502 (i)(ix) .....</b>	km

The unit of measurement shall be the number of km's during which the specified attenuator had been provided.

Item	Unit
<b>"B15.16      Amber flashing lights mounted on signs .....</b>	number (No)

The tendered lump sum shall include full compensation to provide, erect, operate and maintain two amber flashing lights per sign at each end of the traffic accommodation sections. It shall also include the provision of power to operate the lights, replacing bulbs as required and keeping the lenses clean and visible.

Item	Unit
<b>B15.17      Provision of traffic safety equipment for use by the engineer</b>	

(a)      Safety jackets .....	number (No)
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The unit of measurement shall be the number of each item provided as specified and approved by the project manager.

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

Item	Unit
<b>B15.18      Construction health and safety officer .....</b>	month

The unit of measurement shall be the period in months that the approved construction health and safety officer is employed.

The tendered rate per month shall include full compensation for the cost of the construction health and safety officer to conduct his duties as specified in sub-clause B1502 (i)

Item	Unit
<b>B15.19      Penalties</b>	

(a)      Fixed penalty per occurrence .....	number (No)
(b)      Time related penalty .....	hour (h)

In subitem B15.19(a) the unit of measurement shall be number and applied for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications at the rate specified in the pricing schedule."

In subitem B15.19 (b) the unit of measurement shall be hour and applied for each hour over and above the time set by the engineer that the identified non-compliance has not been rectified.

The above pay items shall be applied at the rates stated in the Appendix to Tender and in the pricing schedule and become payable by the contractor in each and every month they occur and shall be deducted from the amount due to the contractor on the relevant monthly payment certificates."

## **SECTION B5700: ROAD MARKINGS**

### **B5701 SCOPE**

*Replace "South African Road Traffic Signs Manual" in the second paragraph with:*

*"SADC Road Traffic Signs Manual: Chapter 7: Road Markings."*

### **B5702 MATERIALS**

*Insert the following before subclause (a) Paint*

*"The selection of appropriate road marking materials for permanent road markings to ensure conformance with the requirements of this specification rests with the contractor. The selection of appropriate road marking materials for temporary road markings to ensure conformance with the specification also rest with the contractor but such material shall be equal to or more durable than road marking paint specified in sub-subclause 5702 (a) (i)*

*Information of the type of road marking material utilised and application rates for each order shall be included in the quality control process"*

*Add the following sub-subclause*

*"(v) Other Roadmarking materials*

*The contractor may use other roadmarking materials which would ensure more durable markings, and which would meet the specified performance criteria.*

*Such materials should comply with a standard set by a recognised national standards institution. Information on such materials and the standards to which they comply shall be submitted to the project manager"*

#### **(b) Road studs**

*Replace the second sentence with the following:*

*"All square road studs shall have a footprint of 100 mm x 100 mm and a height of at least 20 mm. Round road studs shall be 100 mm in diameter and not less than 20 mm in height. Only non-metallic products with glass as reflective material shall be used. Shanked road studs shall be used on the outside slow lane shoulders and only where the pavement layers are appropriate."*

*Insert the following subclause:*

### **B 5705 SURFACE PREPARATION**

*Add the following at the end of the second paragraph:*

*"The onus is on the contractor to ensure that the surface on which the road markings are to be applied are sufficiently clean, dry and non-flaky to ensure that the quality of the road markings will not be adversely affected. The contractor is also responsible for protecting road studs from being painted over.*

*The cost for the normal cleaning of the road surface shall be included in the rates tendered for the specific items but the contractor will be compensated under item B57.11(d) should excessive cleaning be required. The type of cleaning required shall be finalized prior to any road cleaning/surface preparation being done on it."*

**B5706 SETTING OUT THE ROAD MARKINGS**

*Add the following:*

"Where road markings are to be replaced after milling/overlay seal, it is essential that all existing barrier lines and other road marking lines be accurately referenced before commencement of milling or other operations which will obliterate the existing road markings. The position of barrier lines shall be re-assessed on site by the project manager before the contractor commences with the road marking. If the length of individual roadmarking segments to be painted in accordance with the SA Road Traffic Signs Manual differs from the length of the existing road markings the project manager's representative shall indicate the direction in which painting needs to be done to ensure the consistent application of the new marking relative to the old markings."

**B5707 APPLYING THE PAINT**

*Replace the last paragraph with the following:*

"The centre-line shall be painted immediately after 2 km of continuous road has received a new asphalt layer, or 4 km of continuous road has received a new seal surfacing or where, in the opinion of the project manager, conditions are unsafe.

The Contractor's establishment on site and general obligation shall be deemed to fully include the establishment of the road-marking team, irrespective of the number of times the road-marking team is required to be on site or is required to move within the site.

All road marking materials shall be applied at a rate decided upon by the contractor taking cognisance of the conditions on the road and ensuring that the performance specifications will be met."

**B 5708 APPLYING THE RETRO-REFLECTIVE BEADS**

*Replace the second sentence with the following:*

"The rate of application and the distribution of the beads on permanent road markings shall be sufficient to ensure that the retro-reflective requirements are met as specified. The rate of application and the distribution of the beads on temporary road markings shall be sufficient to ensure that the retro-reflective requirements of newly applied road markings are met as specified but shall not be less than 0,34 kg/m<sup>2</sup> of marking."

**B 5709 ROADSTUDS**

*Replace the words "on the drawings" in the first paragraph with the following:*

"as instructed by the Project Manager"

**B5711 GENERAL**

*Replace the third paragraph with the following:*

"The contractor shall guarantee that permanent road markings shall meet the performance requirements for at least the period indicated in the Appendix, failing which remedial actions (including possible penalisation) shall be taken as provided for in the specifications"

*Add the following:*

"The contractor shall ensure that all road studs which have been affected by the painting will be cleaned without damaging the lens elements of the road studs. Such cleaning will be done within 24 hours after the studs had been affected by the painting"

*Insert the following into the last sentence of the last paragraph between "black paint" and "or chemical paint remover":*

“, bituminous emulsion, slurry”

*Add the following to the last paragraph:*

"Where black paint is used, it shall be matt."

## **B5714 MEASUREMENT AND PAYMENT**

*Replace the description of Item 57.02: Retro-reflective road-marking paint with the following:*

**"B57.02: Retro-reflective paint markings for temporary road markings.**

*Add the following payment items:*

<b>"Item</b>		<b>Unit</b>
<b>B57.10</b>	<b>Performance guaranteed retro-reflective road markings for permanent road markings:</b>	
(a)	White lines (broken or unbroken) (width of line indicated).....	kilometre (km)
(b)	Yellow lines (broken or unbroken) (width of line indicated).....	kilometre (km)
(c)	White lettering and symbols.....	kilometre (km)
(d)	Yellow lettering and symbols.....	square metre (m <sup>2</sup> )
(f)	Transverse lines, painted island and arrestor bed markings (any colour).....	square metre (m <sup>2</sup> )

The unit of measurement for painting the lines shall be a kilometre of each specified width of line and the quantity paid for shall be the actual length of line painted in accordance with the instructions of the project manager, excluding the length of gaps in broken lines.

The unit of measurement for painting the lettering, symbols, transverse lines or painted island and arrestor bed markings shall be a square metre, and the quantity to be paid for shall be the actual surface area of lettering, symbols or transverse lines, painted island and arrestor bed markings completed in accordance with the instructions of the project manager.

The tendered rate per kilometre or per square metre as the case may be for painting the road markings shall include full compensation for procuring and furnishing all material, including the retro-reflective beads and the necessary equipment, and for establishment on site, accommodation of traffic, painting, protecting and maintenance as specified, including the setting-out of lettering, symbols and transverse lines, painted island and arrestor bed markings, but excluding setting out and pre-marking the lines.

Item	Unit
<b>B57.11</b>	<b>Extra over item B57.10 to allow for variance in:</b>
(a) Surface texture .....	square metre (m <sup>2</sup> )
(b) High traffic volumes .....	square metre (m <sup>2</sup> )
(c) High heavy vehicle volumes .....	square metre (m <sup>2</sup> )
(d) Excessive cleaning (water jetting, compressed air, etc) .....	square metre (m <sup>2</sup> )

The tendered rates shall be the square metre of road marking painted to specification under detrimental conditions as provided for in the Project Specifications.

The tendered rates paid extra-over item 57.10 shall include full compensation for the additional cost of providing a durable road marking meeting the specified performance levels. It shall include for all additional measures including the possibility of marking with a different material and all costs incidental thereto.

Item	Unit
<b>B57.12</b>	<b>Performance guaranteed retro-reflective road markings applied with highly durable materials:</b>
(a)	White lines (broken or unbroken) (width of line indicated) ..... kilometre (km)
(b)	Yellow lines (broken or unbroken) (width of line indicated) ..... kilometre (km)
(c)	White lettering and symbols ..... square metre (m <sup>2</sup> )
(d)	Yellow lettering and symbols ..... square metre (m <sup>2</sup> )
(e)	Transverse lines, painted island and arrestor bed markings (any colour) ..... square metre (m <sup>2</sup> )

The unit of measurement for painting the lines shall be a kilometre of each specified width of line and the quantity paid for shall be the actual length of line painted in accordance with the instructions of the project manager, excluding the length of gaps in broken lines.

The unit of measurement for painting the lettering, symbols, transverse lines or painted island and arrestor bed markings shall be a square metre, and the quantity to be paid for shall be the actual surface area of lettering, symbols or transverse lines, painted island and arrestor bed markings completed in accordance with the instructions of the project manager.

The tendered rate per kilometre or per square metre as the case may be for painting the road markings shall include full compensation for procuring and furnishing all material, including the retro-reflective beads and the necessary equipment, and for establishment on site, accommodation of traffic, painting, protecting and maintenance as specified, including the setting-out of lettering, symbols and transverse lines, painted island and arrestor bed markings, but excluding setting out and pre-marking the lines.

Item	Unit
<b>B57.13 Supply and installation of road studs:</b>	
(a) Supply of road studs:	
(i) (Type as instructed by Engineer) .....	PC Sum
(ii) Contractor's handling costs, profit and all other charges in respect of subitem B57.13(a).....	percentage (%)
(b) Installation of road studs (state type of installation) .....	number

The tendered rate for the installation of the road studs shall be number of road studs installed in accordance with the road stud manufacturer's instructions.

The tendered rate for subitem (b) shall include full compensation for the installation of the road studs including the necessary equipment, accommodation of traffic, protection and maintenance and all materials required. The tendered rate shall also include full compensation for the careful removal of obsolete road studs at the position where new road studs are to be installed, and the disposal of the obsolete studs in a way acceptable to the project manager, and all other costs incidental hereto.

Item	Unit
<b>B57.14 Supply and installation of Cosby Strips:</b>	
(a) Supply and application of Cosby Strips .....	number

The unit of measurement shall be number of Cosby Strips supplied and applied in accordance with the manufacturer's instructions.

The tendered rate shall include full compensation for the supply and application of the Cosby strips including the necessary equipment, accommodation of traffic, protection and maintenance and all materials required and all other costs incidental hereto."

#### **Add the following new clauses**

##### **"B5715 APPLICATION OF THE FPGS PROCEDURE**

###### **(a) General**

In the past the contract for the marking and re-marking of roads were based on specifying the materials to be used and the process to be followed to achieve a particular end-result. In this contract the end-result is specified in a way that can be monitored and where compliance to the specifications will be objectively measured.

The FPGS procedure will be applicable on all permanent road markings to be applied under this Contract on roads in the Gauteng Province. Markings to be applied on bituminous surfaces less than three months old will be regarded as temporary markings. Such markings will not be subject to the FPGS procedure unless the contractor proposes the use of a durable road marking material and agrees to the application of the FPGS procedure to such works.

###### **(b) Classification of roads**

All road markings shall be classified as either permanent or temporary road markings.

To provide for the application of the FPGS procedure to permanent road markings the roads to be marked shall further be classified in uniform sections in terms of the following characteristics:

(i) Surface texture

Coarse surfaces are those that have a surface depth exceeding 1,6 mm when measured in accordance with TMH 6 method ST1: Sand patch test.

(ii) Traffic volume

High volume roads are those single carriageway roads with a traffic volume exceeding 5 000 vehicles per day or dual carriageway roads with a traffic volume exceeding 15 000 vehicles per day.

Traffic volumes shall be based on traffic counts not older than three years at the time of the classification meeting and will be based on at least a two-day count extended to average daily traffic by means of appropriate extension factors.

(iii) Heavy vehicle volume

Roads with high heavy vehicle volumes are those in the carriageway roads with at least 500 heavy vehicles per day per direction (i.e. 1 000 heavy vehicles per day) or dual carriageway roads with at least 1 000 heavy vehicles per day per direction (i.e. 2 000 heavy vehicles per day).

All roads where highly durable road markings need to be applied on instruction of the engineer will be deemed as classified with a coarse texture, high traffic volume and high heavy vehicle volume.

A road shall be classified prior to any road marking being done on it. The contractor accepts that the agreed classification of the road would provide sufficient information for him to choose appropriate road marking materials and application rates to comply with the performance characteristics required by the contract.

Should any of the factors on which the classification is based, change during the functional performance guarantee period to such an extent that the classification might have been different, the contractor may request the engineer to confirm the classification. Should a re-classification be warranted, the cost of the necessary surveys shall be borne by the employer.

Should the original classification be confirmed the cost of the necessary surveys shall be recovered from the contractor.

The lengths of such uniform sections shall be limited to a maximum of 10 km in urban areas and 25 km in rural areas. These uniform sections shall be subdivided into subzones not exceeding 4 km in length. Performance measurements shall be taken on each subzone of road thus identified and shall be used for the acceptance control of such subzones and uniform sections.

**(c) Required performance characteristics**

The following characteristics will be considered as indicative of the satisfactory performance of the road marking:

(i) Durability

| Durability shall be indicated by the Traffic Wear Index determined in accordance with SANS 6248: 2007, *Determination of traffic wear*.

(ii) Night-time visibility

Night-time retro-reflection shall be measured during normal working hours with a portable retro-reflectometer in accordance with SABS Method 1261: 1998.

Permanent road markings shall comply with the relevant levels of performance during the functional performance guarantee period as indicated in Table 1.

<b>TABLE 1: LEVEL OF PERFORMANCE CHARACTERISTICS PERMANENT ROAD MARKINGS (FPGS Work)</b>		
<b>Characteristic</b>	<b>Time after marking</b>	
	<b>&lt; 1 month</b>	<b>12 months</b>
<u>Durability</u>	No requirement	< 35
<u>Night-time reflectivity</u> (mcd/lx/m <sup>2</sup> )		
White markings	> 200	> 125
Yellow markings	> 130	> 80
	< 1 month	12 months
<b>Night-time reflectivity for highly durable road markings:</b> (mcd/lx/m <sup>2</sup> )		
White markings	250	150
Yellow markings	180	100

These requirements will be applicable to all road markings as applied newly, and on all longitudinal road markings when assessed at the 12 month inspection date. The minimum performance level for transverse road markings inspected at the 12-month inspection dates shall at least be 35 (durability) and 125 mcd/lx/m<sup>2</sup> (retro-reflectivity).

Newly applied markings will also be subject to compliance with the tolerance requirements in the Specifications.

**(d) Payment schedule**

Payment for all work subject to the FPGS procedure shall be done in instalments according to Table 2.

<b>TABLE 2 : PAYMENT SCHEDULE FOR FPGS WORK</b>	
<b>Inspection date (Months after marking)</b>	<b>Maximum possible payment (% of monetary value of executed work, excluding Prime Cost Items)</b>
< 1 month	80%
12months	20%

The extent of the payment shall be determined on consideration of the quality control results. If the average value of those readings taken for a subzone exceeds 95 % of the relevant specified value, full payment in accordance with the schedule shall be affected. If the average value lies between 95 % and 80 % of the relevant specified value, the work may be conditionally accepted provided that:

- (i) Conditional acceptance shall be at the sole discretion of the engineer and not an option which may be exercised by the contractor or a right the contractor may claim.
- (ii) Conditional acceptance shall be done at a reduced payment in lieu of complete rejection.
- (iii) The payment reduction shall amount to 20% of the value of those items in the section not complying with the specifications.
- (iv) The contractor shall have the option to reinstate at his own cost conditionally accepted work with work which complies with the requirements for acceptance at full payment in accordance with the payment schedule.
- (v) Conditional acceptance at one stage of acceptance control (eg < 1 month) would not impose an obligation on the engineer to accept the works conditionally at a subsequent stage should the markings again fail to meet the requirements.

**(e) Quality Control**

The contractor shall execute the quality control of the markings in accordance with a quality control plan approved by the employer. The quality control plan shall be based on a minimum level of assessment on at least 5 % of the work done, (ie one set of measurements per kilometre). The contractor shall provide the engineer with the results of the contractor's process quality control during the marking process. The cost of such process quality control shall be borne by the contractor.

The engineer may require additional control testing to be done on the road markings by departmental personnel and/or by an accredited organisation. In the latter case the contractor shall arrange and pay for the necessary tests. Should these tests indicate that the work is in compliance with the specifications, the costs of such tests shall be reimbursed to the contractor. Should these tests indicate the works to be unacceptable, the contractor shall execute such remedial works as specified in the contract or shall be subject to such penalising measures as specified in the contract. The costs of tests on rejected works shall be that of the contractor.

**(f) Failure to comply with the performance characteristic:**

If the works which are subject to the FPGS procedure fail to meet the required performance characteristics, the contractor shall be required to execute the following remedial works or be subject to the following penalising measures:

**(i) Failure of works at initial inspection**

If the works are rejected, the contractor shall reinstate all works found to be outside the specifications, all at his own cost, or be subject to the following penalising measures:

- If only certain of the assessed characteristics comply with the requirements but other characteristics fail to meet the required level, the engineer in his sole discretion may accept the works conditionally, subject to the provisions of the contract.

(ii) Failure of works at final inspection (12 months)

- If certain of the assessed characteristics comply with the requirements, but other characteristics fail to meet the required level, the engineer in his sole discretion may accept the works conditionally subject to such conditions contained in the contract, or
- If the works are rejected, the Contractor shall forfeit the scheduled payment and furthermore be liable for a penalty amount of 5 % of the monetary value of those parts of the works which failed to meet the required performance level.

Should it be clear that the road markings would not meet the required level of performance at any of the inspection dates, the contractor may use his discretion to apply appropriate remedial actions to rectify the shortcomings after getting approval from the engineer for work within the road reserve, approval which would not be unreasonably withheld.

If the works fail to meet the required performance levels at the final inspection date and the contractor claims that traffic conditions not consistent with the original traffic classification of the road is responsible, he may in terms of Subclause B5715(b) request a survey to confirm the alleged new classification.

If the claim is substantiated, further payments for the works shall be paid in terms of the payment schedule for markings i.e. the outstanding 20% of the total monetary value at the 12-month inspection date if the change in classification occurred before the 12-month inspection date.

**B5716 ROAD MARKINGS NOT SUBJECT TO THE FPGS PROCEDURE**

**(a) General**

All temporary markings (i.e. markings applied to bituminous surfaces which are less than three months old) shall not be subject to the FPGS procedure but shall be subject to the specifications contained in this clause.

**(b) Classification of roads**

The roads on which the markings will be applied shall be classified similarly to the classification described in subclause B5715(b).

**(c) Required performance characteristics**

**TABLE 3: LEVEL OF PERFORMANCE CHARACTERISTICS FOR TEMPORARY ROAD MARKINGS (NON-FPGS Work)**

<b>Characteristic</b>	<b>Time after marking</b>
	<b>&lt; 1 month</b>
<u>Night-time reflectivity</u> (mcd/lx/m <sup>2</sup> )	
White markings	> 200
Yellow markings	>130

Newly applied temporary road markings will also be subject to compliance with the tolerance requirements in the Specifications.

**(d) Payment Schedule**

Payment for all work not subject to the FPGS procedure shall be done in instalments according to Table 4.

TABLE 4: PAYMENT SCHEDULE FOR NON-FPGS WORK	
Inspection date (Months after marking)	Maximum possible payment (% of monetary value of executed works, excluding Prime Cost items)
< 1 month	100%

The extent of the payment shall be determined on consideration of the quality control results. If the average value of those readings taken for a subzone exceeds 95 % of the relevant specified value, full payment in accordance with the schedule shall be affected. If the average value lies between 95 % and 80 % of the relevant specified value, the work may be conditionally accepted provided that:

- (i) Conditional acceptance shall be in the sole discretion of the Project Manager and not an option which may be exercised by the Contractor or a right the Contractor may claim.
- (ii) Conditional acceptance shall be done at a reduced payment in lieu of complete rejection.
- (iii) The payment reduction shall amount to 20 % of the value of those items not complying with the specifications.
- (iv) The Contractor shall have the option to reinstate at his own cost conditionally accepted work with work which complies with the requirements for acceptance at full payment in accordance with the payment schedule.
- (v) Conditional acceptance at one stage of acceptance control (e.g. < 1 month) would not impose an obligation on the project manager to accept the works conditionally at a subsequent stage should the markings again fail to meet the requirements.

**(e) Quality Control**

The Contractor shall execute the quality control of the markings in accordance with a quality control plan approved by the Employer. The quality control plan shall be based on a minimum level of assessment on at least 5% of the work done. The Contractor shall provide the project manager with the results of the Contractor's process quality control during the marking process. The cost of such process quality control shall be borne by the Contractor.

**(f) Failure to comply with the specifications**

If the works not subject to the FPGS procedure fail to meet the specifications, the Contractor shall be required to execute the following remedial works or be subject to the following penalising measures:

(i) Failure of works at initial inspection

If the works are rejected, the Contractor shall reinstate all works found to be outside the specifications, all at his own cost, or requirements, the Engineer in his sole discretion may accept the work;

- If only certain of the assessed characteristics comply with the conditionally, subject to the provisions of the Contract.

**B 5717 PAYMENT**

Payment shall be done in instalments in accordance with the relevant payment schedules for FPGS or non-FPGS works. Payment shall be done on invoices submitted by the Contractor on an order-for-order basis. Payments shall be limited to three invoices per order maximum.

All invoices shall clearly reference the order number and shall be submitted to the offices of the Project Manager's Representative. All invoices shall be priced in accordance with the price ruling at the time that the order was issued. Subsequent changes as a result of the calculation of new contract price adjustment factors shall not be considered. All invoices shall be accompanied by a certificate indicating the results of compliance testing done in accordance with the quality control plan. The first invoice so rendered for a particular order shall also be accompanied by an incident report of all accidents (if any) that have occurred at that particular site during the period while work was being done. These certificates shall be in a format acceptable to the Project Manager.

No payment shall be made for unused materials on site. Payment will be done in accordance with the relevant payment schedule within a period of 30 days.

The final invoice for a particular order shall be submitted within 30 days of the completion of the Functional Performance Guarantee Period."

*Add the following clauses:*

**"B 8118 TEST ON RETRO REFLECTIVE MATERIAL FOR USE ON ROAD MARKINGS**

On site testing of the retro-reflective properties of road markings shall be done with a II field retro-reflectometer measuring at an entrance angle of 5,0° and an observation angle of 0,33°. The retro-reflectometer shall be used in accordance with the manufacturer's instructions. The co-efficient of retro-reflection so determined shall be at least equal to the relevant values given in SANS 1519-1: 2006 for weathered material."

**B 8119 TESTING OF APPLIED ROAD MARKINGS**

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

Durability of road markings: index	SANS 6248:2007	Determination of traffic wear
Night-time retro-reflectivity:	SABS method 1261:1998	Determination of retro-reflected luminance by means of a portable retro-reflectometer. (Measurement to SABS method 1261:1998 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 subzone within a 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) Test locations shall be randomly selected within the uniform section in such a way that one location be selected in a subzone of 4 km.
- (ii) At each test location a 200 m long continuous section of road shall be marked out into four 50 m long sections (200 m is 5 % of 4 km). A 5 m length shall be selected within each 50 m section and measurements shall be made on such a length. It is accepted that the 5 m section would be representative of the 50 m section.
- (iii) The following number of tests for traffic wear index and 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 a sampling rate of at least 5 %:

Sample %

Stop lines or yield lines	5
Painted islands	2,5

Each reported retro-reflection test will comprise the average of three (3) readings. The Employer will make available two reference plates with laboratory determined coefficients of retro-reflection. Measurements done by different retro-reflectometers shall be standardised utilising these reference plate readings. These standardised measurements shall be utilised for acceptance control purposes.

The Project Manager reserves the right to limit traffic wear index tests to one per identified test location. Should it be clear that the relevant marking would pass this test a ruling of "PASS" may be done based on visual interpretation rather than the application of SANS 6248.

**(b) Acceptance criteria**

The quality of the road markings will be assessed for acceptance purposes per subzone, and per line type/location combination (i.e. results for different line types will be assessed separately).

The results shall be evaluated against the specified threshold limits.

The works will be tested at two stages.

First inspection      on newly applied permanent or temporary road markings within one month after application.

Final inspection      12 months after the first application of permanent road markings.

At each inspection the following acceptance criteria will be applicable.

- (i)    Acceptable if the average value exceeds 95 % of the relevant specified value.
- (ii)   Failed if the average value is less than 80 % of the relevant specified value.
- (iii)   Conditional acceptance if the average of the test results exceeds 80 % but is less than 95 % of the relevant specified level.

**B 8117**

**MEASUREMENT AND PAYMENT**

*Add the following payment item*

"Item	Unit
<b>B81.04      Testing of Road Markings</b>	
(a)    Traffic wear index tests to SANS 1248:2007	
(i)    Cost of testing. ....	PC Sum
(ii)   Charge on Prime Cost Sum .....	Percentage (%)
(b)    Retro-reflectivity tests to SANS 1261:1998	
(i)    Cost of testing. ....	PC Sum
(ii)   Charge on prime cost sum .....	Percentage (%)

The PC sums provided to cover the costs of special tests as requested by the Project Manager in terms of clause 8115 shall be expended in accordance with the conditions of contract. Payment will not be made for any special test should the test indicate that the specifications have not been complied with."

**B 5700**

**MEASUREMENT AND PAYMENT**

*Add the following payment item*

<b>"Item</b>		<b>Unit</b>
<b>B57.15      New-Technology based Road Marking Products</b>		
(i)	Cost of application .....	PC Sum
(ii)	Charge on Prime Cost Sum.....	Percentage (%)

Payment shall be done as instructed by the Project Manager.

## SECTION C: ENVIRONMENTAL MANAGEMENT PLAN

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## **C1001      SCOPE**

This Environmental Management Plan (EMP) sets out the methods by which proper environmental controls are to be implemented by the contractor. The duration over which the contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the Defects Notification Period (maintenance period).

The provisions of this EMP are binding on the contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the South African National Roads Agency SOC Limited in writing for approval.

The EMP identifies the following:

- Construction activities that will impact on the environment.
- Specifications with which the contractor shall comply in order to protect the environment from the identified impacts.
- Actions that shall be taken in the event of non-compliance.

## **C1002      DEFINITIONS**

**Alien Vegetation:** alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

**Construction Activity:** a construction activity is any action taken by the contractor, his subcontractors, suppliers or personnel during the construction process as defined in the South African National Roads Agency SOC Limited and National Roads Act, 1998 (Act No. 7, 1998)

**Environment:** environment means the surroundings within which humans exist and that could be made up of -

- (i) the land, water and atmosphere of the earth;
- (ii) micro-organisms, plant and animal life;
- (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
- (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

**Environmental aspect:** an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

**Environmental impact:** an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

**Road reserve:** the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

Road width:	for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that are affected by the continuous presence of the road, e.g. a reach of a water course.
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### **C1003 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS**

The contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- waste generation
- storm water discharge
- emission of pollutants into the atmosphere
- chemical use operations
- energy use operations
- water use operations
- use of natural resources
- noise generation

Thereafter the contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified, and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the contractor shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to sub-clause 8.3 as amended by Particular Condition of the general conditions of contract and clause B1204 of these project specifications.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

- Pollution of atmosphere, soil or water
- Destruction or removal of fauna and flora and effect on biological diversity
- Deformation of the landscape
- Soil erosion
- Destruction of historical/heritage sites
- Effect on the built environment
- Effect on agricultural land and wetlands

General good construction practice will play an important role in avoiding the occurrence of an Impact. The contractor's attention is drawn, in this regard, to C1008. Environmental Management of Construction Activities

### **C1004 LEGAL REQUIREMENTS**

#### **(a) General**

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

**(b) Statutory and other applicable legislation**

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

**C1005 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS**

**(a) Appointment of a Designated Environmental Officer (DEO)**

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times.

**(b) Administration**

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.
- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

**(c) Good housekeeping**

The contractor shall undertake "good housekeeping" practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridge Works for State Road Authorities (1998 edition) and sub-clauses 4.18 and 11.11 of the General Conditions of Contract. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

## **C1006 TRAINING**

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he intends concluding his environmental training obligations.

## **C1007 ACTIVITIES/ASPECTS CAUSING IMPACTS**

A list of possible causes of environmental impacts that occur during construction activities is given in Table 7/1: Aspects or Activities that Cause Environmental Impacts during Construction Activities, which is to be found at the end of Section C. This list is not exhaustive, and shall be used for guideline purposes only.

## **C1008 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES**

### **(a) Site establishment**

#### **(i) Site plan**

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site. Read in conjunction with COLTO Specification 1302(a) and 1402(e).

(ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. (Read in conjunction with COLTO Specification 5801(b), 5802(b), (c), (d) and (e), 5804, 5805, 5806 and 5807). Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

(iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

(iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

(v) Heating and cooking fuel

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

**(b) Sewage treatment**

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-away, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the engineer. Read with COLTO Specifications 1402(g) and 1404(a).

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The contractor

shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer.

**(c) Waste management**

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

(i) **Solid waste**

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water Affairs and Forestry (DWAF) licensed landfill site or at a site approved by DWAF in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site. Read with COLTO Specification 1404(a).

(ii) **Litter**

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites. (Read in conjunction with COLTO Specification 1302(b)).

(iii) **Hazardous waste**

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

**(d) Control at the workshop**

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

(i) **Safety**

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

(ii) **Hazardous Material Storage**

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

(iii) **Fuel and gas storage**

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. An adequate bund wall, 110 % of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

(iv) **Oil and lubricant waste**

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

**(e) Clearing the Site**

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the Defects Notification Period.

**(f) Soil management**

(i) **Topsoil**

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an

approved Department of Water Affairs and Forestry waste disposal site. (Read with COLTO Specifications 3104(a), 5802(a), (g), 5804(a), (b) and (c)). The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2 m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be top soiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the engineer. The contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

**(ii) Subsoil**

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

**(g) Drainage**

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The contractor shall submit to the engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

**(h) Earthworks and Layer works**

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the contractor shall have complied with the requirements of sections C1008 (e) and C1008 (g). In addition, the contractor shall take cognisance of the requirements set out below.

**(i) Quarries and borrow pits**

The contractor's attention is drawn to the requirement of the Department of Minerals and Energy that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Pricing Schedule. (Read with COLTO Specification 3100 and 3200).

(ii) Excavation, hauling and placement

The contractor shall provide the engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, and sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity. (Read with COLTO Standard Specification clauses 1217 and 3309)

(iii) Spoil sites

The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the Defects Notification Period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after revegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The engineer will assist the contractor in obtaining the necessary approval if requested by the contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75 mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the contractor. This will include both strip and full sodding. The contractor may motivate to the engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the Defects Notification Period upon receipt from the contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability (Read with COLTO standard Specifications clause 1214). The contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

(iv) Stockpiles

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the engineer for his approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage?

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact;
- Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the engineer and the relevant National Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the engineer

In all cases, the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their closure only when they have been satisfactorily rehabilitated. (Read with COLTO Specification B3203 and B4306).

(v) **Blasting activities**

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard. The contractor shall also indicate to the engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

(i) **Batching sites**

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are sited?

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relevant authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section C1008(h)(iii), with the exception that the contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The engineer will assist the contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the engineer for approval.

The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

(j) **Spillages**

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The

Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be revegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

**(k) Areas of specific importance**

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The contractor may offer alternative solutions to the engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

**(i) Archaeological sites**

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The South African Heritage Resource Agency (SAHRA) is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with FIDIC General Condition of Contract sub-clause 4.24 as amended by Particular Condition).

**(ii) Graves and middens**

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. The South African Heritage Resource Agency (SAHRA) should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the SAHRA, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred. (Read with FIDIC General Conditions of Contract sub-clause 4.24 as amended by Particular Condition).

**(l) Noise control**

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

**(m) Dust control**

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

**(n) Alien vegetation**

The contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go

facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the Defects Notification Period.

#### **C1009 RECORD KEEPING**

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

#### **C1010 COMPLIANCE AND PENALTIES**

The contractor shall act immediately when a notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and an oral report given at the monthly site meetings.

Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed therefore any avoidable non-compliance, dependant on severity, shall be considered sufficient grounds for contact to be made with relevant provincial or national authorities.

The engineer's decision with regard to what is considered a violation, its seriousness and the action to be taken against the contractor shall be final. Failure to redress the cause shall be reported to the relevant authority. The responsible provincial or national authorities shall ensure compliance and impose penalties relevant to the transgression as allowed for within its statutory powers.

**TABLE 7/1: MECHANISMS THAT CAUSE ENVIRONMENTAL IMPACTS DURING CONSTRUCTION ACTIVITIES**

Section	Contents	Environmental Impacts				
		Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas <i>(to be completed by compiler)</i>
1300	Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1400	Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1500	Accommodation of Traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1600	Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	
1700	Clearing and grubbing	Waste treatment Hazardous waste Water supply Noise /lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Protection of indigenous vegetation Preserve topsoil	
2100 - 2400	Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

Section	Contents	Environmental Impacts				
		Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas <i>(to be completed by compiler)</i>
3100	Borrow pits	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3200	Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3300	Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3400 - 3900	Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
4100	Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	
5000	Ancillary	Waste treatment	Selection of site	Selection of site	Preserve indigenous	

Section	Contents	Environmental Impacts					Sensitive Areas <i>(to be completed by compiler)</i>
		Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation		
	roadworks	Hazardous waste Water supply Spillage Storage	Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	vegetation Preserve topsoil Management of weeds		
6000	Structures	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds		
7000	Concrete pavements etc	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds		

**SECTION D: REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS**

## SCOPE OF WORKS

### SECTION D: REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS

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## 1.0 SCOPE

This part of the specification has the objective to assist principal contractors entering into contracts with The Department of Roads and Transport that they comply with the Occupational Health and Safety (OH&S) Act, No. 85 of 1993. Compliance with this document does not absolve the principal contractor from complying with minimum legal requirements and the principal contractor remains responsible for the health and safety of his employees and those of his Mandatories. Principal and other contractors should therefore insist that this part of the specification form part of any contract that he may have with other contractors and/or suppliers.

This section covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that principal contractors and other contractors shall comply with in order to reduce the risks associated with this contract that may lead to incidents causing injury and/or ill health.

## 2.0 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

### 2.1 Hazard Identification and Risk Assessment (Construction Regulation 7)

#### 2.1.1 Risk Assessments

Paragraph 4 contains a generic list of risk assessment headings that have been identified by The Department of Roads and Transport as possibly applicable to this contract. It is, by no means, exhaustive and is offered as assistance to contractors intending to tender.

#### 2.1.2 Development of Risk Assessments

Every principal contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, cause a risk assessment to be performed by a competent person, appointed in writing, and the risk assessment shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 5(1).

The risk assessment shall include, at least:

- the identification of the risks and hazards to which persons may be exposed
- the analysis and evaluation of the risks and hazards identified
- a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified
- a monitoring plan and
- a review plan

Based on the risk assessment, the principal contractor shall develop a set of site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessment, together with the site-specific OH&S rules shall be submitted to The Department of Roads and Transport before construction on site commences. Despite the risk assessments listed in paragraph 4, the principal contractor shall conduct a baseline risk assessment and the aforesaid listed risk assessment shall be incorporated into the baseline risk assessment. The baseline risk assessment shall further include the standard working procedures and the applicable method statements based on the risk assessments

All variations to the scope of work shall similarly be subjected to a risk assessment process.

#### 2.1.3 Review of Risk Assessment

The principal contractor shall review the hazard identification, risk assessments and standard working procedures at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The principal contractor shall provide The Department of Roads and Transport, other contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in paragraph 2.1.3.

## 2.2 Legal Requirements

A principal contractor shall, as a minimum, comply with:

The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up-to-date copy of which shall be available on site at all times.

The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.

Where work is being carried out on a "mine", the contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1996) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mines Health and Safety Act and Regulations shall be available on site at all times.

## 2.3 Structure and Responsibilities

### 2.3.1 Overall Supervision and Responsibility for OH&S

It is a requirement that the principal contractor, when he appoints contractors (Subcontractors) in terms of Construction Regulations 5(3), 5(5), 5(9), 5(10) and 5(12) includes in his agreement with such contractors the following:

- OH&S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory"
- OH&S Act (85 of 1993), Section 16(2) appointee/s as detailed in his/her/their respective appointment forms.

### 2.3.2 Further (Specific) Supervision Responsibilities for OH&S

The contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a generic list of identified appointments and may be used to select the appropriate appointments for this contract. The contractor shall note that it is a generic list only and is intended for use as a guideline.

#### Ref. Section/Regulation in OH&S Act

Batch Plant Supervisor	(Construction Regulation 6(1))
Construction Vehicles/Mobile Plant/Machinery Supervisor	(Construction Regulation 21)
Demolition Supervisor	(Construction Regulation 12)
Drivers/Operators of Construction Vehicles/Plant	(Construction Regulation 21)
Electrical Installation and Appliances Inspector	(Construction Regulation 22)
Emergency/Security/Fire Coordinator	(Construction Regulation 27)
Excavation Supervisor	(Construction Regulation 11)
Explosive Powered Tool Supervisor	(Construction Regulation 19)
Fall Protection Supervisor	(Construction Regulation 8)
First Aider	(General Safety Regulation 3)
Fire Equipment Inspector	(Construction Regulation 27)
Formwork & Support work Supervisor	(Construction Regulation 10)
Hazardous Chemical Substances Supervisor	(HCS Regulations)
Incident Investigator	(General Admin Regulation 29)
Ladder Inspector	(General Safety Regulation 13A)
Lifting Equipment Inspector	(Construction Regulation 20)
Materials Hoist Inspector	(Construction Regulation 17)
OH&S Committee	(OH&S Act Section 19)
OH&S Officer	(Construction Regulation 6(6))
OH&S Representatives	(OH&S Act Section 17)
Person Responsible for Machinery	(General Machinery Regulation 2)
Scaffolding Supervisor	(Construction Regulation 14)
Stacking & Storage Supervisor	(Construction Regulation 26)
Structures Supervisor	(Construction Regulation 9)
Suspended Platform Supervisor	(Construction Regulation 15)
Tunnelling Supervisor	(Construction Regulation 13)
Vessels under Pressure Supervisor	(Vessels under Pressure Regulations)
Working on/next to Water Supervisor	(Construction Regulation 24)
Welding Supervisor	(General Safety Regulation 9)

In addition The Department of Roads and Transport requires that a Traffic Safety Officer be appointed (see COLTO Section 1500). The above appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated and agreed with the appointees. Notice of appointments shall be submitted to The Department of Roads and Transport. All changes shall also be communicated to The Department of Roads and Transport.

The principal contractor shall, furthermore, provide The Department of Roads and Transport with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site. Where necessary, or when instructed by an inspector of the Department of Labour, the principal contractor shall appoint a competent construction safety officer.

#### 2.3.3 Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where the principal contractor employs more than 20 persons (including the employees of other contractors (subcontractors) he has to appoint one OH&S representatives for every 50 employees or part thereof. General Administrative Regulation 6 requires that the appointment or election and subsequent designation of the OH&S representatives be conducted in consultation with employee representatives or employees. (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation.

#### 2.3.4. Duties and Functions of the OH&S Representatives (Section 18 of the OH&S Act)

The principal contractor shall ensure that the designated OH&S representatives conduct continuous monitoring and regular inspections of their respective areas of responsibility using a checklist and report thereon to the principal contractor. OH&S representatives shall be included in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings.

#### 2.3.5. Appointment of OH&S Committee (Sections 19 and 20 of the OH&S Act)

The principal contractor shall establish an OH&S committee, which shall meet as specified in the Regulations.

### 2.4. **Administrative Controls and the Occupational Health & Safety File**

#### 2.4.1. The OH&S File (Construction Regulation 5(7))

As required by Construction Regulation 5(7), the principal contractor and other contractors shall each keep an OH&S file on site. The following list is not exhaustive and shall only be used as a guide:

- Notification of construction work (Construction Regulation 3)
- Latest copy of OH&S Act (General Administrative Regulation 4)
- Proof of registration and good standing with COID Insurer (Construction Regulation 4(g))
- OH&S plan agreed with the Client including the underpinning risk assessment/s and method statements (Construction regulation 5(1))
- Copies of OH&S committee and other relevant minutes
- Designs/drawings (Construction Regulation 5(8))
- A list of contractors (subcontractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9)
- Appointment/designation forms as per paragraphs 2.1.1 and 2.1.2.
- Registers as follows:
  - Accident/Incident register (Annexure 1 of the General Administrative Regulations)
  - OH&S representatives' inspection register
  - Asbestos demolition and stripping register
  - Batch plant inspections
  - Construction vehicles and mobile plant inspections by controller
  - Daily inspection of vehicles, plant and other equipment by the operator/driver/user
  - Demolition inspection register
  - Designer's inspection of structures record
  - Electrical installations, -equipment and -appliances (including portable electrical tools)
  - Excavations inspection
  - Explosive powered tool inspection, maintenance, issue and returns register (incl. cartridges and nails)
  - Fall protection inspection register
  - First aid box contents
  - Fire equipment inspection and maintenance
  - Formwork and support work inspections

- Hazardous chemical substances record
- Ladder inspections
- Lifting equipment register
- Materials hoist inspection register
- Machinery safety inspection register (incl. machine guards, lock-outs etc.)
- Scaffolding inspections
- Stacking and storage inspection
- Inspection of structures
- Inspection of suspended platforms
- Inspection of tunnelling operations
- Inspection of vessels under pressure
- Welding equipment inspections
- Inspection of work conducted on or near water
- All other applicable records including traffic safety officer reports.

The Department of Roads and Transport will conduct an audit on the OH&S file of the principal contractor from time-to-time.

## 2.5. **Notification of Construction Work (Construction Regulation 3)**

The principal contractor shall, where the contract meets the requirements laid down in Construction Regulation 3, within 5 working days, notify the Department of Labour of the intention to carry out construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy shall be kept on the OH&S file and a copy shall be forwarded to The Department of Roads and Transport for record keeping purposes.

## 2.6. **Training and Competence**

The contents of all training required by the Act and Regulations shall be included in the principal contractor's OH&S plan. The principal contractor shall be responsible for ensuring that all relevant training is undertaken. Only accredited service providers shall be used for OH&S training. The principal contractor shall ensure that his and other contractors' personnel appointed are competent and that all training required to do the work safely and without risk to health, has been completed before work commences. The principal contractor shall ensure that follow-up and refresher training is conducted as the contract work progresses and the work situation changes. Records of all training must be kept on the OH&S file for auditing purposes.

## 2.7. **Consultations, Communication and Liaison**

OH&S liaison between the client, the principal contractor, and the other contractors, the designer and other concerned parties will be through the OH&S committee as contemplated in paragraph 2.3.5. In addition to the above, communication may be directly to the client or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their supervisors, OH&S representatives and the OH&S committee. The principal contractor shall be responsible for the dissemination of all relevant OH&S information to the other contractors e.g. design changes agreed with the client and the designer, instructions by the client and/or his/her agent, exchange of information between contractors, the reporting of hazardous/dangerous conditions/situations etc. The principal contractors' most senior manager on site shall be required to attend all OH&S meetings.

## 2.8. **Checking, Reporting and Corrective Actions**

### 2.8.1 Monthly Audit by Client (Construction Regulation 4(1)(d))

The Department of Roads and Transport will conduct monthly audits to comply with Construction Regulation 4(1)(d) to ensure that the principal contractor has implemented and is maintaining the agreed and approved OH&S plan.

### 2.8.2 Other Audits and Inspections by The Department of Roads and Transport

The Department of Roads and Transport reserves the right to conduct other ad hoc audits and inspections as deemed necessary. This will include site safety walks.

#### 2.8.3 Contractor's Audits and Inspections

The principal contractor is to conduct his own monthly internal audits to verify compliance with his own OH&S management system as well as with this specification.

#### 2.8.4 Inspections by OH&S Representative's and other Appointees

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

#### 2.8.5 Recording and Review of Inspection Results

All the results of the abovementioned inspections shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

### 2.9 **Accidents and Incident Investigation (General Administrative Regulation 9)**

The principal contractor shall be responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register listed in paragraph 2.4.1.

The principal contractor shall be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

#### 2.10 **Reporting**

The principal contractor shall provide The Department of Roads and Transport with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

## 3.0 **OPERATIONAL CONTROL**

### 3.1 **Operational Procedures**

Each construction activity shall be assessed by the principal contractor so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the principal contractor:

- to be conversant with Regulations 8 to 29 (inclusive)
- to comply with their provisions
- to include them in his OH&S plan where relevant.

### 3.2 **Emergency Procedures**

Simultaneous with the identification of operational procedures (per paragraph 3.1 above), the principal contractor shall similarly identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in the principal contractor's OH&S plan.

### 3.3 **Personal & Other Protective Equipment (Sections 8/15/23 of the OH&S Act)**

The contractor shall identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable, take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered.

Where it is not possible to create an absolutely safe and healthy workplace the contractor shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the contractor maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use/wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition/s for which the equipment was prescribed but an alternative solution has to be found that may include relocating or discharging the employee.

The principal contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

### **3.4 Other Regulations**

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 22: Electrical Installations and Machinery on Construction Sites) the principal contractor shall be conversant with and shall comply with these regulations.

### **3.5 Public Health & Safety (Section 9 of the OH&S Act)**

The principal contractor shall be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. This includes:

- Non- employees entering the site for whatever reason
- The surrounding community
- Passers by to the site

## **4.0 PROJECT/SITE SPECIFIC REQUIREMENTS**

### **4.1 List of Risk Assessments**

- Clearing and Grubbing of the area/site
- Site establishment including:
  - Office/s
  - Secure/safe storage for materials, plant and equipment
  - Ablutions
  - Sheltered eating area
  - Maintenance workshop
  - Vehicle access to the site
- Dealing with existing structures
- Location of existing services
- Installation and maintenance of temporary construction electrical supply, lighting and equipment
- Adjacent land uses/surrounding property exposures
- Boundary and access control/public liability exposures (NB: the employer is also responsible for the OH&S of non-employees affected by his/her work activities.)
- Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.
- Exposure to noise
- Exposure to vibration
- Protection against dehydration and heat exhaustion
- Protection from wet and cold conditions
- Dealing with HIV/Aids and other diseases
- Use of portable electrical equipment including
  - Angle grinder
  - Electrical drilling machine
  - Circular saw
- Excavations including

- Ground/soil conditions
- Trenching
- Shoring
- Drainage of trench
- Welding including
  - Arc welding
  - Gas welding
  - Flame cutting
  - Use of LP gas torches and appliances
- Loading and offloading of trucks
- Aggregate/sand and other materials delivery
- Manual and mechanical handling
- Lifting and lowering operations
- Driving and operation of construction vehicles and mobile plant including
  - Trenching machine
  - Excavator
  - Rollers
  - Plate compactor
  - Front end loader
  - Mobile cranes and the ancillary lifting tackle
  - Parking of vehicles and mobile plant
  - Towing of vehicles and mobile plant
- Use and storage of flammable liquids and other hazardous substances
- Layering and bedding
- Installation of pipes in trenches
- Pressure testing of pipelines
- Backfilling of trenches
- Protection against flooding
- Gabion work
- Use of explosives
- Protection from overhead power lines
- As discovered by the principal contractor's hazard identification exercise
- As discovered from any inspections and audits conducted by the client or by the principal contractor or any other contractor on site

As discovered from any accident/incident investigation.



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

## **C4: Site Information**

### **PART C4: SITE INFORMATION**

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## Information Only

All data and descriptions contained in this section of the contract documents are given for information purposes only and cannot be interpreted as prescriptive despite the fact that the text may give the opposite perspective. If any conflict arises between the content of this section and other sections of the contract documents, the latter take precedence.

## MISCELLANEOUS

The Project Specifications form an integral part of the Contract Documents and supplement the Standard Specifications.

In the event of any discrepancy with a part or parts of the standard specifications, the schedule of rates or the drawings, the project specifications shall take precedence.

The Standard Specifications which form part of this contract have been written to cover all phases of work normally required for road contracts and may therefore cover items not applicable to this particular contract. Tenderers shall take note of the revisions thereto contained in this volume.

The following standard specifications will apply to this contract:

- SABS 309 (SANS 309: 2004)
- COLTO Standard Specifications for Road and Bridge Works for State Road Authorities, 1998 Edition.

The supply and delivery include the application of road markings to designated roads. The supplier will apply the markings according to the specifications given in this document. In these specifications the terms "Contractor" and "Supplier" have the same meaning.

## C4.1 THE WORKS: DESCRIPTION AND EXECUTION

### (a) General

This Contract is a period contract for the supply and application of road markings on roads in all five regions of Gauteng Province for a period of three years.

- **The Contract is let on an as-and-when-required basis and will always be subject to the availability of sufficient funds by the Employer.**
- **The Contract is not based on estimated quantities as it is a period contract for work as-and-when required. The Contract requires Tenders to be submitted on the basis of different Schedules of Prices and Rates. These rates and prices shall be applicable irrespective of the actual quantities ordered.**
- **"As and when required" contracts will cease to exist after the contract period lapsed or if the contract value has been depleted. The Employer has the right to determine the method in which the contract will cease to exist.**
- The Bill of Quantities is divided in five (5) distinctive regions. The tenderer is welcome to tender for all or anyone of these 5 regions.
- The employer reserves the right to award anyone or more of these 5 bills to a specific contractor. The contractor will not be entitled to any additional remuneration other than the specific rates should any of the bills not be awarded to him.

- The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. (See clause 15 of the General Conditions of Contract – 2010 and clause 16 for the Suspension and Termination by the Contractor).
- **The contractor shall be liable for all claims that result during the execution of his work on site. (see clause 17.1 of the FIDIC Condition of Contract for Construction, 1999)**
- Proof of Evidence (POE) **must be** submitted with the invoice. **NO INVOICE WILL BE ACCEPTED BY THE PROJECT MANAGER IF ALL THE DOCUMENTS STIPULATED IN ANNEXURE A IS NOT FULLY COMPLETED AND SUBMITTED WITH THE INVOICE.** (Penalty clause will be implemented for non-conformance).

**(b) Site location**

The Contract has been subdivided into different bills - based on the following five administrative regions of the Department of Roads and Transport namely the Benoni, Bronkhorstspruit, Krugersdorp, Pretoria and Vereeniging Regions.

The employer can only identify specific sites for the marking and remarking of roads once the Contract has commenced or during the currency of the contract. No indication of the extent of the work, or whether work of a specific type or if any work will in actual fact be done in a specific region can be given.

**C4.2**

**DRAWINGS**

The only drawings issued as part of the tender documents are those included in the project document. Where it is deemed necessary for specific works, relevant drawings will be issued with the official order.

**C4.3**

**CAMP ESTABLISHMENT, POWER SUPPLY AND OTHER SERVICES**

The Contractor shall make his own arrangements to provide suitable facilities for accommodating his employees. Suitable and adequate sanitary and first-aid services as well as water shall be supplied and maintained for employees.

No accommodation nor storage facilities shall be provided within the road reserve or Departmental camps unless written permission has been obtained timeously from the Project Manager beforehand. Such permission shall be subject to such conditions as the Project Manager deem appropriate under the circumstances. Refusal by the Project Manager to grant permission will not entitle the contractor to any additional remuneration nor an extension of time.

The Contractor shall at his own cost make the necessary arrangements with landowners for temporary settlement on land outside the road reserve.

The contractor shall at all times comply with the requirements or regulations of every statutory body that has jurisdiction pertaining to the temporary accommodation of his employees.

On leaving the camp site the contractor shall ensure that the site has been cleared, all rubbish removed and the site re-instated as far as possible, all to the satisfaction of the relevant land owner who shall attest to this in writing.

#### C4.4

#### MANAGEMENT OF THE ENVIRONMENT

The contractor will be responsible for construction according to an environmental management plan in terms of Section C3 Scope of Works.

The contractor must take the utmost care to minimise the impact of his establishment and other construction activities on the environment and must adhere to the requirements as set out in Section C of the Scope of Works. Where the contractor fails to adhere to these requirements the specifications in Section C of the Scope of Works provide the methodology and cost liability of remedy.

#### C4.5

#### REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS

Refer to Section D of the Scope of Works for general requirements in terms of the OH&S requirements.

#### C4.6

#### ACCOMMODATION OF TRAFFIC

- (a) All accommodation of traffic shall be done in accordance with the drawings and the SA Road Traffic Signs Manual, Vol 2, Chapter 13, June 1999 (The latter is obtainable from the Government Printer, Pretoria).
- (b) The contractor shall take special precautions to ensure the safety of traffic on all roads that are affected by the works. The contractor shall programme his work in such a way that no work will be done outside normal working hours as described in the Appendix to Tender. Furthermore, the contractor shall adjust his work programme to ensure that the hazard posed to the travelling public by equipment and/or personnel working on the road during periods of reduced visibility or other unfavourable environmental or traffic conditions are limited as far as possible.

The contractor's tendered rates shall include full compensation for all possible additional costs which may arise from the above and no claims for extra payment or for an extension of time due to inconvenience as a result of the prescribed process will be considered.

- (c) The travelling public shall have the right of way on public roads. The contractor shall make use of approved methods to control the utilisation of his equipment and vehicles so as to limit the hazard that they constitute on the road.
- (d) Failure to maintain temporary traffic control devices in a good condition in accordance with the drawings shall constitute sufficient reason for the project manager or project manager's representative to temporarily stop the execution of the works until the traffic control devices have been repaired to his satisfaction. In all such cases the contractor will not be entitled to any additional remuneration, nor to an extension of time. The contractor will also not be entitled to additional remuneration should signs need replacement as the result of their deterioration to an unacceptable level.
- (e) The contractor shall be liable for all claims and/or damage that result from negligence with regard to the accommodation of traffic and indemnifies the employer against liability for any such claims.
- (f) The contractor shall take special precautions to safeguard road studs from over spraying. Should this happen the contractor shall clean the road studs within 24 hours of such occurrence to ensure that the functionality of road studs is restored prior to the spraying operation. Should the contractor delay in the cleaning of these road studs the project manager retain the right to temporarily stop the execution of the works until cleaning has been completed.

**C4.7****SECURITY**

The contractor shall be responsible for the security of his personnel and equipment on and around the site of the works and for the security of his camp. No claims in this regard will be considered.

**C4.8****RESPONSIBILITIES OF THE PROJECT MANAGER AND PROJECT MANAGER'S REPRESENTATIVE**

Notwithstanding anything else indicated in the contract, the project manager or project manager's representative shall be responsible for the following:

- (i) Indicating the scope of work prior to a work order being issued and/or revising the scope in case of imminent over-expenditure on a particular order.
- (ii) Agreeing on the classification of the Works
- (iii) Unambiguous indication of the beginning and end of each individual no-overtaking or no-crossing line markings.
- (iv) Agreeing with the quantities to be invoiced by the contractor.
- (v) Acceptance quality control of finished work, at the completion of the work and at different identified points during the functional performance guarantee period.
- (vi) Supplying a site instruction book for the issuing of site instructions and/or the recording of daily conditions.

**C4.9****QUALITY CONTROL**

The contractor shall be responsible for all routine tests to monitor the quality of his work and the materials used in the paint spraying process. This monitoring shall be in accordance with the approved quality plan. The cost of this monitoring shall be included in the rates tendered for the application of the different road markings.

SABS (SANS) certificates must be submitted with each new batch of road marking paint delivered.

**C4.10****DISPUTE RESOLUTION**

The contractor shall have the right by written notice to the project manager, to require him to consider any disagreement raised with the project manager or project manager's representative. All disputes shall be settled in accordance with the Conditions of Contract.

**C4.11****CLAIMS PROCEDURE**

Any claim by the contractor shall be submitted to the project manager and be considered in accordance with the procedure detailed in the Conditions of Contract.

Unless the contractor was not or could not reasonably have been aware of facts that would form the basis of a claim, no claims shall be considered by the project manager if received later than the final invoice by the contractor for payment of the works pertaining to the same order as that which forms the subject of the claim.

#### **C4.12 ENVIRONMENTAL REQUIREMENTS**

The contractor shall take every precaution to avoid unnecessary damage to grass and shrubs within the road reserve. Any damage caused is to be repaired at the Contractor's expense.

Stockpiling of materials within the road reserve will not be permitted without the prior written consent of the project manager. Material shall only be spoiled or stockpiled at sites that have been approved by the project manager. These sites shall be cleaned and repaired at the end of the Contract.



**TENDER NUMBER: DRT 02/06/2022 MARKING AND REMARKING OF ROADS FOR A PERIOD OF THREE YEARS: ALL 5 REGIONS IN THE GAUTENG PROVINCE**

**C5: ANNEXURES**

Annexure A: Checklist for Proof of Evidence

# ANNEXURE A

DRT 02/06/2022

**PAYMENT CHECKLIST PREPARED BY CONTRACTOR:** .....

NO	DESCRIPTION	YES	NO
1	Original Invoice		
2	Copy of the Approved BOQ		
3	Copy of Tax Clearance Certificate		
4	Completed EPWP : Templates		
	: Contracts of Employment		
	: ID Copies		
	: Attendance Registers		
	: Proof of Payments of employees		
5	BBBEE Certificate (copy)		
6	Before and After Photo's of the roads		
7	Control Sheet (Works programme)		

**IMPORTANT:**

- Please note that if any of the above criteria is not met, the Invoice will not be accepted for payment. Non compliance will delay the payment and penalties will be instituted as stated in the contract document.

PREPARED BY

CONTRACTOR :

DATE:

SIGNATURE: